Duke Energy

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W. R. McCollum, Jr.
Vice President

May 18, 2001

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-001

Subject: Oconee Nuclear Station – Units 1, 2, and 3
Docket Nos. 50-269, 50-270, 50-287
Reply to a Notice of Violation
NRC Inspection Report 50-269/01-06, 270/01-06, and 287/01-06

Duke Energy Company (Duke) is in receipt of the referenced NRC Inspection Report. The subject Inspection Report describes an alleged violation of 10 CFR 50.59 requirements associated with the licensing basis for Oconee Nuclear Station. Pursuant to guidance in the NRC's Enforcement Policy, Duke disputes that this issue involves a violation of a regulatory requirement. The attachment to this letter sets forth the factual and regulatory basis for Duke's denial of the subject violation.

The basis for this violation appears to originate in the licensing position in an NRC letter to Duke dated November 9, 2000[1]. Duke agrees with the NRC assessment that this issue is not safety significant (also stated in the November 9, 2000 letter), however, the underlying basis for this NRC licensing position was not provided in either that NRC letter or during the inspection activities associated with the above NRC Inspection Report. The NRC's position, in effect, changes the design basis for the facility by imposing substantial changes to previous regulatory requirements imposed upon Duke and previous commitments made by Duke. Furthermore, the new requirement is burdensome, with substantial cost and effort being necessary to comply with this position, without commensurate safety benefit. Consequently, Duke is contesting this violation.

Duke believes the corrective actions taken in response to this issue have been appropriate in terms of the risk associated with the previous NRC finding. Duke chooses to dispute this violation, as a policy matter, to avoid setting a precedent having specific and more global adverse consequences. In particular, an unsupported licensing position introduced in an NRC letter should not be allowed to alter the established licensing requirements for a facility, and therefore should not be used as the basis for enforcement action. Duke believes this position involves a backfit and that the process prescribed by 10 CFR 50.109 is the appropriate means for evaluating proposed changes to the plant.

[1] NRC letter to Duke Energy Corporation (Attn: W. R. McCollum), "Final Significance Determination for a White Finding and Notice of Violation (NRC Inspection Report 50-269/00-011, 50-270/00-011, and 50-287/00-011, Oconee Nuclear Station)," dated November 9, 2000.

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Attachment 1 provides Duke's basis for denial of the violation pursuant to provisions of 10 CFR 2.201.

There are no commitments contained in this letter.

If you have any questions or require additional information, please contact Stephen C. Newman, Oconee Regulatory Compliance Group, at (864) 885-4388.

Very truly yours,

W. R. McCollum, Jr.
Site Vice President
Oconee Nuclear Site

Attachment

cc: L. A. Reyes, Regional Administrator
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Attachment 1

Oconee Nuclear Station – Units 1, 2, and 3
Docket Nos. 50-269, 50-270, 50-287
Denial of Notice of Violation
NRC Inspection Report 50-269/01-06, 270/01-06, and 287/01-06

Restatement of Violation

During an NRC inspection conducted on January 22-26, 2001, and March 12-22, 2001, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions – May 1, 2000," NUREG-1600, the violation is listed below:

> 10 CFR 50.59 (a)(1) (as revised January 1, 1999) states in part, that the licensee may make changes in the facility as described in the safety analysis report without prior Commission approval, provided the proposed change does not involve an unreviewed safety question (USQ). 10 CFR 50.59 (a)(2) states, in part, that a proposed change involves an USQ if the probability of occurrence or malfunction of equipment important to safety previously evaluated in the safety analysis report may be increased.
>
> The Updated Final Safety Analysis Report (UFSAR) Section 3.2.2, System Quality Group Classification, states, in part that a sufficient supply of primary side make-up water is assured during a tornado initiated loss of offsite power by several sources. Included in these sources is a high-pressure injection (HPI) pump suction from the spent fuel pool (SFP).
>
> UFSAR Section 3.2.2 further states that protection against a tornado is an Oconee design criterion, and that capability is provided to safely shut down all three units, in that, after a tornado, normal shutdown systems will remain available or alternate systems will be available to allow shutdown of the plant.
>
> Contrary to the above, on August 28, 2000, the licensee completed a 10 CFR 50.59 safety evaluation to revise UFSAR Section 3.2.2 and delete the SFP as a suction source for the HPI pump after certain tornadoes, thereby increasing the probability of the malfunction of equipment important to safety. This resulted in an USQ for which the licensee did not have prior Commission approval.

This is a Severity Level IV violation (Supplement I).

Admission or Denial

Duke denies the violation.

Basis for disputing Violation

1. The ability to utilize spent fuel pool (SFP) water as a source of primary make-up via a high-pressure injection (HPI) pump was not a design basis function in the original licensing basis as reviewed and approved by the NRC and is not a design basis function in the historical or current licensing bases.

2. An HPI pump, within the context of tornado mitigation, has never been considered a piece of equipment important to safety previously evaluated in the updated final safety analysis report (UFSAR).
3. There is no regulatory basis for the NRC's statement that *"scenarios exist within the design basis which would require use of the SFP as a suction source for a HPI pump"* as contained in a November 9, 2000 letter supporting Inspection Report (IR) 01-06.

A description of Duke's regulatory position and basis for the subject violation denial follows.

Oconee Nuclear Station (ONS) Licensing Basis

The ONS licensing basis at the time of the issuance of operating licenses is documented in the original Final Safety Analysis Report (FSAR) and NRC Safety Evaluation Report (SER) for the facility. The FSAR demonstrated safe shutdown following a tornado via the establishment of secondary side cooling. No description of primary system make-up was provided in Duke's original licensing correspondence nor was such reliance on primary system make-up contained in the Staff's original SER.

Since the original licensing of the facility, there has been no correspondence from Duke to the NRC, other than the Individual Plant Examination (IPE) and IPE External Events (IPEEE) submittals, which described the alignment of an HPI pump from the SFP following a tornado. However, these submittals, in and of themselves, did not alter the design or licensing bases. Duke has not identified any correspondence over the 28-year operating period of the facility that indicates the NRC ever required or otherwise relied upon this flow path in a licensing action.

The only tornado-related licensing action since the original licensing of the facility was the post-TMI review of the Emergency Feedwater (EFW) System. In the entire series of correspondence associated with the tornado review of EFW, only one Duke letter, dated September 15, 1986[2], mentioned HPI. This letter was in response to a Staff request for additional information (RAI) dated May 30, 1986[3]. The stated purpose of the RAI was to resolve one NUREG-0737 open item (Item II.E.1.1) related to the capability of the Emergency Feedwater System to withstand tornado generated missiles. The RAI included the following request:

"*Following the reactor trip during the time for which decay heat is greater than the removal capability of the steam dumps at [Auxiliary Service Water System] ASWS pressure, provide the mass loss through the reactor system safety valves*" [emphasis supplied].

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[2] DPC letter to H. R. Denton, Director NRR, U. S. Nuclear Regulatory Commission, Re: Response to NRC RAI Dated May 30, 1986, EFW Tornado Protection – Oconee Nuclear Station Units 1, 2, and 3, dated September 15, 1986.

[3] NRC letter to H. B. Tucker, "EFW TORNADO PROTECTION – REQUEST FOR ADDITIONAL INFORMATION (Re: Oconee Nuclear Station, Units 1, 2, and 3)," dated May 30, 1986.

Duke's September 15, 1986, response provided an analysis that demonstrated that station ASW could adequately remove decay heat. To answer the specific Staff request stated above, the analysis included the mass loss through the reactor system safety valves prior to establishing secondary side heat removal. This response was consistent with the original licensing basis of the facility and did not alter any licensing basis requirements with respect to primary system makeup. Duke's response stated that injection flow from one HPI pump, powered by the tornado-protected ASW switchgear, is initiated. However, there was no mention of the SFP as a suction source. The HPI assumption was an ancillary boundary condition for the analysis and did not affect the primary system losses prior to the restoration of secondary side cooling or the conclusions with respect to maintaining adequate core cooling.

Primary system makeup is a recovery action and is not required to successfully mitigate the event. The NRC's request relating to the primary system inventory was to confirm that losses prior to the establishment of secondary side cooling would not result in core uncovery. This information was provided in Figure 6 of the September 15, 1986, submittal. Primary system injection was included in the analysis, but was not and is not considered part of the primary success path to mitigate the event. It is Duke's position that an assumption in a calculation, in and of itself, does not modify the design and licensing bases of the facility.

Also during this timeframe, Duke chose to add the HPI/SFP flowpath information into documents such as the UFSAR, calculations, and design basis documents (DBDs). The purpose of this action was to capture IPE risk assessment information that described a potential need for immediate primary system make-up to address reactor coolant pump (RCP) seal loss-of-coolant accidents (LOCAs) during a tornado. These document changes were not required by the NRC Staff, a docketed commitment or otherwise required by the NRC regulations since the combination of a LOCA during a tornado is outside the station's licensing basis. This tornado design basis statement was also acknowledged by the Staff in the November 9, 2000 submittal[4] wherein it stated, "*The NRC accepts DEC's position that a tornado induced RCP seal LOCA is outside the design basis of the facility.*"

In December 2000, the beyond-design-basis risk concern involving RCP seal LOCAs was addressed by Duke. The replacement of ONS-1 RCPs seal packages with highly reliable substitutes has significantly reduced the probability of an RCP seal LOCA and as such, any potential need for immediate primary make-up. Thus, the risk-based rationale for inclusion of this flow path in the UFSAR no longer exists.

Conclusion

Duke's original design and licensing basis is that primary system makeup is not required to mitigate the consequences of a tornado. However, a number of options exist to recover primary system makeup following a tornado. Specifically, makeup can be

[4] NRC letter to W. R. McCollum, "Final Significance Determination for a White Finding and Notice of Violation (NRC Inspection Report 50-269/00-011, 50-270/00-011, and 50-287/00-011, Oconee Nuclear Station" dated November 9, 2000.

provided from the borated water, letdown, concentrated boric acid, or the "B" bleed storage tanks. Duke's design calculations continue to confirm the original licensing basis of the facility that establishing primary makeup is not time critical following a design basis tornado. The alignment of HPI from the SFP was not designed as a fully tornado-protected alignment. The Staff's position, as stated in this NOV, implies that the flow path must be tornado-protected. This new interpretation represents a Staff-imposed revision to the Oconee licensing basis that is not in keeping with the design, construction, and licensing of this flow path option and would require significant physical modifications for the facility to comply.

From the original licensing of the facility, there has been no correspondence from Duke to the NRC, other than the IPE and IPEEE submittals, which described the alignment of an HPI pump from the SFP following a tornado. Duke has not identified any correspondence over the 28-year operating period of the facility that indicates the NRC ever required or otherwise relied upon this flow path in a licensing action. The risk-based mention of this flow path in the UFSAR, based on the IPE and IPEEE submittals, is no longer relevant based on plant modifications. Consequently, removal of the HPI/SFP flowpath from the UFSAR, via the 50.59 process, was appropriate and did not involve a USQ.

Corrective Steps Taken and Results Achieved

As explained above, no corrective actions were required regarding the NOV issue.

Corrective Steps That Will be Taken To Avoid Further Violation

As explained above, no future corrective actions are planned regarding the NOV issue.

Date of Full Compliance

Duke remains in full compliance.