

#### UNITED STATES NUCLEAR REGULATORY COMMISSION REGION III

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December 21, 2017

EA-17-138

Mr. Bryan C. Hanson Senior VP, Exelon Generation Company, LLC President and CNO, Exelon Nuclear 4300 Winfield Road Warrenville, IL 60555

#### SUBJECT: RESPONSE TO DISPUTED NON-CITED VIOLATION DOCUMENTED IN BYRON STATION, UNITS 1 AND 2—EVALUATIONS OF CHANGES, TESTS, AND EXPERIMENTS BASELINE INSPECTION REPORT 05000454/2017009; 05000455/2017009

Dear Mr. Hanson:

On July 31, 2017, Exelon Generation Company (EGC), LLC, provided a written response to the U.S. Nuclear Regulatory Commission (NRC) Inspection Report 05000454/2017009; 05000455/2017009 issued on June 29, 2017, concerning an Evaluations of Changes, Tests, and Experiments Inspection completed at Byron Station, Units 1 and 2. Specifically, the letter contested Non-Cited Violation (NCV) 05000454/2017009-01; 05000455/2017009-01 associated with the failure to perform an evaluation of a change to the facility as described in the Updated Final Safety Analysis Report (UFSAR) pursuant to Title 10 of the *Code of Federal Regulations* (CFR), Part 50.59(d)(1). The letter explained that EGC concluded that a 10 CFR 50.59(d)(1) evaluation was not required because the UFSAR change satisfied the 10 CFR 50.59(c)(4) exemption.

The NRC carefully reviewed EGC's reply and determined that the original enforcement decision to disposition this issue as a violation of 10 CFR 50.59(d)(1) was valid. Specifically, the NRC-approved Surveillance Frequency Control Program recognizes 10 CFR 50.59 to be the governing change control process for any proposed change to UFSAR commitments associated with codes and standards. This handling of changes to UFSAR commitments is deliberately distinct and separate from the Surveillance Frequency Control Program in order to maintain sufficient safety margin by ensuring the proposed surveillance test frequency change is not in conflict with approved industry codes and standards. In addition, the NRC staff noted that the "contrary to the above" paragraph of the Enforcement Section of NCV 05000454/2017009-01; 05000455/2017009-01 included an explanatory statement that was open to interpretation. Based on a review of licensee documents associated with the disputed NCV, the NRC staff determined that the intended message of the explanatory statement was consistent with the NRC staff conclusions derived during this review of the disputed NCV. The basis for the NRC staff conclusion is enclosed.

This letter, its enclosure, EGC's July 31, 2017, response, and your response (if any) will be made available for public inspection and copying at <u>http://www.nrc.gov/reading-rm/adams.html</u> and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/**RA**/

Kenneth G. O'Brien Deputy Regional Administrator

Docket Nos. 50–454; 50–455 License Nos. NPF–37; NPF–66

Enclosure: NRC Staff Assessment of Disputed NCV 05000454/2017009-01; NCV 05000455/2017009-01

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B. Hanson

Letter to Byron C. Hanson from Kenneth G. O'Brien dated December 21, 2017

SUBJECT: RESPONSE TO DISPUTED NON-CITED VIOLATION DOCUMENTED IN BYRON STATION, UNITS 1 AND 2—EVALUATIONS OF CHANGES, TESTS, AND EXPERIMENTS BASELINE INSPECTION REPORT 05000454/2017009; 05000455/2017009

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#### <u>NRC STAFF ASSESSMENT OF DISPUTED</u> NCV 05000454/2017009-01; 05000455/2017009-01

The U.S. Nuclear Regulatory Commission (NRC) staff reviewed the information provided in Exelon Generation Company (EGC) letter dated July 31, 2017, to determine whether Non-Cited Violation (NCV) 05000454/2017009-01; 05000455/2017009-01 was valid. This review was performed by an NRC staff member having relevant regulatory knowledge and who did not participate in the inspection documented in Inspection Report 05000454/2017009; 05000455/2017009, which dispositioned the disputed violation. The NRC staff referenced several documents that are listed in the Reference Section of this Enclosure and consulted with other NRC staff members that were independent from the original enforcement decision, including members of the Office of Nuclear Reactor Regulation.

## 1. BACKGROUND

On June 29, 2017, the NRC issued Inspection Report 05000454/2017009; 05000455/2017009 documenting the results of an Evaluations of Changes, Tests, and Experiments Inspection at Byron Station, Units 1 and 2. The report included a SL-IV violation of Title 10 of the *Code of Federal Regulations* (CFR), Part 50.59(d)(1) for the failure to provide a written evaluation which provided the basis for the determination that a change did not require a license amendment. The violation was associated with a change to a Updated Final Safety Analysis Report (UFSAR) commitment related to the emergency diesel generators (EDGs) made in support of surveillance frequency (SF) changes evaluated under the Byron Station SF Control Program (SFCP). This violation was dispositioned as NCV 05000454/2017009-01; 05000455/2017009-01.

On July 31, 2017, EGC provided a written response to the NRC contesting the enforcement decision associated with NCV 05000454/2017009-01; 05000455/ 2017009-01. In the letter, EGC explained that a 10 CFR 50.59(d)(1) evaluation was not required because the associated change to the UFSAR satisfied the 10 CFR 50.59(c)(4) exemption.

## 2. ORIGINAL ENFORCEMENT DECISION

Inspection Report 05000454/2017009; 05000455/2017009 described the violation as:

Title 10 CFR 50.59, "Changes, Tests, and Experiments," Section (d)(1) requires the licensee to maintain records of changes in the facility, of changes in procedures, and of tests and experiments made pursuant to 10 CFR 50.59(c). Title 10 CFR 50.59(d)(1) requires that these records include a written evaluation which provides the basis for the determination that a change, test, or experiment did not require a license amendment. Title 10 CFR 50.59(c)(2) requires a licensee to obtain a license amendment prior to implementing a proposed change, test, or experiment if the change, test, or experiment would result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC [structure, system, or component] important to safety.

Contrary to the above, between February 14, 2014, and June 1, 2017, the licensee failed to provide a written evaluation which provided the basis for determining that a change, test, or experiment made pursuant to 10 CFR 50.59(c) did not require a license amendment. Specifically, the licensee failed to provide a basis for why a change to the surveillance frequencies of EDGs described in the Updated Final

Safety Analysis Report did not require prior NRC approval. The licensee did not provide a basis for why the change would not result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety.

## 3. LICENSEE POSITION

In letter dated July 31, 2017, EGC concluded that UFSAR changes associated with SF changes performed in accordance with an NRC-approved SFCP are not subject to 10 CFR 50.59(d)(1) evaluations because these changes satisfy 10 CFR 50.59(c)(4), which states that the requirements of 10 CFR 50.59 do not apply to changes to the facility or procedures when the applicable regulations establish more specific criteria for accomplishing such changes. In summary, the bases for EGC's position included:

- 1. The NRC-approved the use of Revision 1 of Nuclear Energy Institute (NEI) Topical Report 04-10, "Risk-Informed Method for Control of Surveillance Frequencies," to identify, assess, implement, and monitor changes to the SFs listed in Byron Station SFCP.
- 2. The NEI 04-10 process became a regulatory requirement because it was incorporated in the Administrative Controls section of Byron Station Technical Specifications (TS).
- 3. The NEI 04-10 process applies more specific criteria than 10 CFR 50.59 to evaluate SF changes.
- 4. The NEI 04-10 methodology evaluates all aspects of the current licensing basis (CLB), including the UFSAR and industry codes/standards insights and compliance, because TS requirements are inextricably linked to the rest of the CLB.

## 4. NRC STAFF REVIEW

The NRC staff carefully reviewed the EGC position as it applied to the specific circumstances surrounding NCV 05000454/2017009-01; 05000455/2017009-01 as follows:

## 1. NRC Approval of NEI 04-10, Revision 1

During this review, the NRC staff confirmed that Revision 1 of NEI 04-10 was approved by the NRC to revise SFs within a licensee-controlled SFCP. Specifically, NRC Final Safety Evaluation (SE) for Revision 1 of NEI 04-10, dated September 19, 2007, states "The NRC staff has found that NEI 04-10, Revision 1, is acceptable for referencing by licensees proposing to amend their TS to establish a Surveillance Frequency Control Program, to the extent specified and under the limitations delineated in NEI 04-10, Revision 1, and in the enclosed final SE."

In addition, the NRC staff confirmed that the NRC approved a TS amendment to establish a SFCP based on the methodology contained in Revision 1 of NEI 04-10 for Byron Station. Specifically, NRC SE for Byron Station Amendment No. 171, dated February 24, 2011, states "This methodology supports relocating surveillance frequencies from TS to a licensee-controlled document, provided those frequencies are changed in accordance with NEI 04-10, Revision 1, which is specified in the Administrative Controls of the TSs."

As a result of the above review, the NRC staff concluded that the NRC-approved Byron Station's establishment of a licensee-controlled SFCP provided SF changes are made in accordance with Revision 1 of NEI 04-10.

## 2. Byron Station SFCP Relationship with Regulatory Requirements

During this review, the NRC staff determined that the NRC-approved a TS amendment to include Byron Station SFCP in their TS. Specifically, NRC SE for Byron Station Amendment No. 171 states "Byron Station has included the SFCP and specific requirements into the TSs, Section 5.5.19, Administrative Controls,..." Section 5.5.19, "Surveillance Frequency Control Program," of Byron Station TS, Amendment 171, was added to state:

This program provides controls for Surveillance Frequencies. The program shall ensure that Surveillance Requirements specified in the Technical Specifications are performed at intervals sufficient to assure the associated Limiting Conditions for Operation are met.

- a. The SFCP shall contain a list of Frequencies of those Surveillance Requirements for which the Frequency is controlled by the program.
- b. Changes to the Frequencies listed in the SFCP shall be made in accordance with NEI 04-10, "Risk-Informed Method for Control of Surveillance Frequencies," Revision 1 [emphasis added].
- c. The provisions of Surveillance Requirements 3.0.2 and 3.0.3 are applicable to the Frequencies established in the SFCP.

Furthermore, the NRC staff determined that TS 5.5.19 is a legally binding requirement because it was incorporated into the Administrative Controls section of TS. Compliance to TS is required as a license condition. Specifically, Section 2.C(2) of Byron Station Renewed Facility Operating License No. NPF-37 states "The licensee shall operate the facility in accordance with the TS and the Environmental Protection Plan." In addition, the NRC Enforcement Policy, dated November 1, 2016, states "**Requirement**, as used in this Policy, **means a legally binding requirement such as** a statute, regulation, license condition, **TS [emphasis added]**, or Order." Similar definitions were found in the NRC Enforcement Manual, Revision 10, and Office of Nuclear Reactor Regulations Office Instruction LIC-105, "Managing Regulatory Commitments Made by Licensees to the NRC," Revision 7 (publicly available).

As a result of the above review, the NRC staff concluded that changing SFs listed in the SFCP in accordance with Revision 1 of NEI 04-10 was compliant with Byron Station TS 5.5.19, Amendment 171, which was a legally binding requirement.

#### 3. NEI 04-10 Change Process and the 10 CFR 50.59(c)(4) Exemption

During this review, the NRC staff noted that the scope of the 10 CFR 50.59 obligation, which is further clarified by the definitions included therein, is limited to the facility and procedures **as described in the UFSAR [emphasis added]**. For example, Paragraph (c)(1) of the obligation states "A licensee may make changes in the facility **as described in the final FSAR [Final Safety Analysis Report] (as** 

updated) [emphasis added], make changes in the procedures as described in the FSAR (as updated) [emphasis added], and conduct tests or experiments not described in the FSAR (as updated) [emphasis added]..." The definition of *"tests or experiments not described in the FSAR (as updated)* [emphasis added]" contained in 10 CFR 50.59(a)(6) was based on design bases and safety analyses as described in the FSAR (as updated) [emphasis added]. In the specific case of NCV 05000454/2017009-01; 05000455/2017009-01, the SF changes themselves were not changes to the facility or procedures as described in the UFSAR. Thus, the 10 CFR 50.59 obligation did not apply, including the 10 CFR 50.59(c)(4) exemption. Instead, Byron Station TS 5.5.19, Amendment 171, requires Revision 1 of NEI 04-10 as the governing change process for the SF changes involved in the disputed violation, consistent with the conclusion of Section 4.2 of this Enclosure.

However, the NRC staff noted that TS 5.5.19, Amendment 171, requires Revision 1 of NEI 04-10 as the governing change process **only for SF changes [emphasis added]**. That is, this process is not specified as the governing change process to evaluate changes to NRC commitments made in support of SF changes. Specifically, Revision 1 of NEI 04-10, Step 1, requires checking for NRC commitments related to the proposed SF change. When commitments are identified, Steps 2 through 4 require changing the commitments using a method acceptable to the NRC prior to changing the SF if the commitments could be changed. Alternatively, these steps require canceling the proposed SF change if the commitments could not be changed. The NRC staff further noted that these steps were incorporated into the EGC SFCP procedures listed in the References Section of this Enclosure.

Revision 1 of NEI 04-10 emphasizes that "Evaluating changes to the NRC commitments is a separate activity based on a method acceptable to the NRC for managing and changing regulatory commitments, e.g., NEI 99-04 [emphasis added]." The potential need to perform separate change evaluations is also recognized by Revision 1 of NEI 96-07, "Guidelines for 10 CFR 50.59 Implementation," which was endorsed by the NRC as an acceptable method for complying with the provisions of 10 CFR 50.59 in Regulatory Guide (RG) 1.187, "Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments," dated November 2000. For example, it states "To the extent the UFSAR changes are directly related to the activity implemented via another regulation, applying 10 CFR 50.59 is not required... However, there may be certain activities for which a licensee would need to apply both the requirements of 10 CFR 50.59 and that of another regulation [emphasis added]."

Revision 1 of NEI 04-10 prompts the consideration for a separate 10 CFR 50.59 evaluation for NRC commitment changes associated with the proposed SF changes by stating "In Step 3, change the commitments using a method acceptable to the NRC, e.g., NEI 99-04, such that the STI [surveillance test interval; aka., SFs] can be revised using the SFCP process." Revision 0 of NEI 99-04, "Guidelines for Managing NRC Commitment Changes," states "Commitments that are embodied in the UFSAR as descriptions of the facility or procedures are changed by applying the provisions of 10 CFR 50.59 [emphasis added] to determine if a change requiring prior NRC approval exists." NEI 99-04 defined commitment as "...an explicit statement to take a specific action agreed to, or volunteered by, a

licensee *and* submitted in writing on the docket to the NRC." In addition, Revision 1 of EGC procedure ER-AA-425-1002, Step 4.5.2, states "Examples of commitments within Exelon include but are not limited to the following... UFSAR."

In the specific case of NCV 05000454/2017009-01; 05000455/2017009-01, the licensee changed explicit statements embodied in the UFSAR in support of the involved SF changes. For instance, the UFSAR stated that Byron Station complied with Revision 3 of RG 1.9, "Selection, Design, Qualification, and Testing of Diesel-Generator Units Used as Class 1E Onsite Electric Power Systems at Nuclear Power Plants," which endorses Institute of Electrical and Electronic Engineers (IEEE) Standard 387-1984, "IEEE Standard Criteria for Diesel-Generator Units Applied as Standby Power Supplies for Nuclear Power Generating Stations." Because these statements were embodied in the UFSAR, they were submitted in writing on the docket to the NRC in accordance with 10 CFR 50.71, "Maintenance of records, making of reports." Therefore, the NRC staff determined that these explicit statements were NRC commitments. In addition, the NRC staff noted that the licensee recognized that these explicit statements were commitments in SFCP evaluation BY-13-003, "DG and Integrated Safeguards LOOP ESF Surveillance Test Surveillance Frequency STI Evaluation," Revision 0. For example, Section C.7 states "...RG 1.9 to which Byron is committed to, with some exceptions, in the UFSAR, Appendix A."

As a result of the above review, the NRC staff concluded that, in the case of NCV 05000454/2017009-01; 05000455/2017009-01, the NEI 04-10 process was the governing change process for the subject SF changes while the 10 CFR 50.59 process was the governing change process for changing the UFSAR commitments made in support of the involved SF changes.

#### 4. NEI 04-10 Treatment of Codes and Standards Related to Proposed SF Changes

During this review, the NRC staff noted that the NRC SE for Byron Station Amendment No. 171 states that Revision 1 of NEI 04-10 was acceptable because, in part, it meets each key safety principle required for risk-informed changes to the TSs identified in Revision 1 of RG 1.177, "An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications." This RG describes an acceptable approach for assessing the nature and impact of proposed TS changes in completion times and SFs by considering engineering issues and applying risk insights. It states that "In implementing risk-informed decisionmaking, TS changes are expected to meet a set of key principles." Revision 2 of RG 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," which is referenced by RG 1.177, further clarified that "One aspect of the engineering evaluations [conducted to justify any proposed CLB change] is to show that the fundamental safety principles on which the plant design was based are not compromised by the proposed change." This risk-informed approach to TS is consistent with the NRC general review guidance for TS contained in Revision 1 of Section 16.1, "Risk-Informed Decision Making: Technical Specifications," of NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition—Technical Specifications."

The third key safety principle identified by the RGs is that the proposed TS change maintains sufficient safety margin. The RG 1.177 states that sufficient safety margin is maintained when, in part, "Codes and standards (e.g., American Society of Mechanical Engineers, Institute of Electrical and Electronic Engineers (IEEE)) or alternatives approved for use by the NRC are met, (e.g., the proposed TS completion time or SF change is not in conflict with approved codes and standards relevant to the subject system [emphasis added])." Accordingly, the NRC SE for Byron Station Amendment No. 171 states that an engineering evaluation will be conducted by the licensee under the SFCP that will assess the impact of the proposed SF change with the principle that sufficient safety margin is maintained. It further states that "The guidelines used for making that assessment will include ensuring the proposed surveillance test frequency change is not in conflict with approved industry codes and standards [emphasis added]..." The SE also states "Thus, safety margins are maintained by the proposed methodology, and the third key safety principle of RG 1.177 is satisfied." The NRC staff found similar statements in relevant Statements of Considerations published by the NRC in 73 FR 74202 (December 5, 2008) and 74 FR 31996 (July 6, 2009).

In the case of NCV 05000454/2017009-01; 05000455/2017009-01, the SF changes were in conflict with the UFSAR commitment to comply with Revision 3 of RG 1.9, which endorses IEEE Standard 387-1984, and the licensee did not resolve this conflict in accordance with the NRC risk-informed philosophy as incorporated into Revision 1 of NEI 04-10. Specifically, Steps 1 through 4 of NEI 04-10 include guidelines for checking for NRC commitments related to the proposed SF change and, when commitments are identified, changing the commitments using a method acceptable to the NRC prior to changing the SF or canceling the proposed SF change if the commitments cannot be changed. However, the licensee did not identify the UFSAR commitment to comply with Revision 3 of RG 1.9 when performing these steps. Their UFSAR review only consisted of a search of the key-words "test" (and all its word forms), "surveillance," "frequency," "interval," "refueling," and "outage" as documented in Byron Station SFCP evaluation BY-13-003. Despite the deficient implementation of Steps 1 through 4, the licensee identified the UFSAR commitment while performing Step 7 of NEI 04-10, which prompted the licensee to update the UFSAR in support of the SF changes via DRP 15-073, "Revise Diesel Generator and Integrated Safeguards LOOP/ESF Surveillance Test Frequency from 18 Months to 18 Months on a Staggered Test Basis," Revision 0. This UFSAR revision package included a 10 CFR 50.59 screening for the UFSAR commitment change to determine if an evaluation pursuant to 10 CFR 50.59 was required.

However, the licensee's 10 CFR 50.59 screening incorrectly concluded that a 10 CFR 50.59 evaluation was not required by, in relevant part, crediting SFCP evaluation BY-13-003, which was performed in accordance with the NEI 04-10 process instead. Specifically, Step 2 of the SFCP change process from Revision 1 of NEI 04-10 emphasizes that "Evaluating changes to the NRC commitments is a separate activity based on a method acceptable to the NRC for managing and changing regulatory commitments, e.g., NEI 99-04." Step 1 of Revision 0 of NEI 99-04 for handling regulatory commitments states "Commitments that are embodied in the UFSAR as descriptions of the facility or procedures are changed by applying the provisions of 10 CFR 50.59 to determine if a change requiring prior NRC approval exists." However, instead of performing the 10 CFR 50.59 evaluation

as identified by NEI 99-4, the licensee incorrectly applied the 10 CFR 50.59(c)(4) exemption crediting the SFCP to provide more specific criteria to accomplish the change. This created a circular logic as stated in the Description Section of NCV 05000454/2017009-01; 05000455/2017009-01.

As a result of the above review, the NRC staff concluded that evaluations performed in accordance with Byron Station SFCP, as approved by the NRC, must ensure that the proposed SF changes are not in conflict with approved industry codes and standards. In the case of NCV 05000454/2017009-01; 05000455/2017009-01, the SF changes were in conflict with a UFSAR commitment to comply with an approved industry standard and the licensee addressed this conflict by changing the commitment without applying the 10 CFR 50.59 process, which was the governing change process for this UFSAR commitment change as discussed in Section 4.3 of this Enclosure. Specifically, the NRC-approved SFCP recognizes 10 CFR 50.59 to be the governing change control process for any proposed change to UFSAR commitments associated with codes and standards, in order to maintain sufficient safety margin by ensuring the proposed surveillance test frequency change is not in conflict with approved industry codes and standards. Code-required surveillance requirements reside within codes outside the technical specifications framework, and may be relied upon for other allowances within those codes, and therefore are appropriately treated differently from technical specification surveillance requirements.

#### 5. Evaluation of the Original Enforcement Action

The NRC staff noted that the "contrary to the above" paragraph of the Enforcement Section of NCV 05000454/2017009-01; 05000455/2017009-01 included an explanatory statement that was open to interpretation. The "contrary to the above" paragraph is quoted below showing the explanatory statement in bold.

Contrary to the above, between February 14, 2014, and June 1, 2017, the licensee failed to provide a written evaluation which provided the basis for determining that a change, test, or experiment made pursuant to 10 CFR 50.59(c) did not require a license amendment. Specifically, the licensee failed to provide a basis for why a change to the surveillance frequencies of emergency diesel generators described in the Updated Final Safety Analysis Report did not require prior NRC approval. The licensee did not provide a basis for why the change would not result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety.

In the context of the information documented in the Description Section of NCV 05000454/2017009-01; 05000455/2017009-01, the explanatory statement could be interpreted to convey, at least, the following messages:

- 1. The licensee failed to apply the 10 CFR 50.59 evaluation change process to EDG SF changes and the 10 CFR 50.59 evaluation change process was applicable because the SFs were described in the UFSAR; or
- 2. The licensee failed to apply the 10 CFR 50.59 evaluation change process to a UFSAR commitment change made in support of EDG SF changes.

Based on a review of licensee documents associated with the disputed NCV, the NRC staff determined that the second interpretation conveys the intended message of the explanatory statement. Further, it was determined that this intended message was consistent with the NRC staff conclusions derived during this review of the disputed NCV.

As a result of the above review along with the reviews included in Sections 4.1 through 4.4 of this Enclosure, the NRC staff determined that the original enforcement action of NCV 05000454/2017009-01; 05000455/2017009-01 was valid.

# 5. CONCLUSION

The NRC staff determined that the licensee performed two changes: (1) SF changes; and (2) a UFSAR change to address a conflict between the SF changes and a standard that the licensee was committed to. The licensee evaluated both changes using their NRC-approved SFCP, which was based on Revision 1 of NEI 04-10. However, this process was only approved for evaluating SF changes. Evaluating a UFSAR commitment change involving an approved standard and accepting a conflict between proposed SF changes and a committed standard using Byron Station SFCP was not in accordance with: (1) the limitations delineated in Revision 1 of NEI 04-10; (2) the EGC procedures established to implement the NEI 04-10 process; and (3) the NRC SE approving Byron Station's SFCP.

Based on this review and after careful consideration of the information provided by EGC in letter dated July 31, 2017, the NRC staff determined that the violation of 10 CFR 50.59(d)(1) occurred as stated in NCV 05000454/2017009-01; 05000455/2017009-01. The NRC staff gave importance to the fact that the NRC SE approving Byron Station SFCP accepted its methodology because, in relevant part, it would ensure that the proposed SF changes would not be in conflict with approved industry codes and standards to meet the NRC key safety principles for risk-informed changes to the TSs and not compromise the fundamental safety principles on which the plant design was based. The NRC staff also gave importance to the fact that Revision 1 of NEI 04-10 explicitly recognized its limitation to evaluate NRC commitment changes.

In addition, the NRC staff determined that the Enforcement Section of NCV 05000454/ 2017009-01; 05000455/2017009-01 included an explanatory statement that was open to interpretation. Based on a review of licensee documents associated with the disputed NCV, the NRC staff determined that the intended message of the explanatory statement was that the licensee failed to provide a basis for why a change to the UFSAR commitment to comply with Revision 3 of RG 1.9 did not require prior NRC approval. Further, it was determined that this intended message was consistent with the NRC staff conclusions derived during this review of the disputed NCV.

## 6. **REFERENCES**

- Letter from Robert C. Daley to Bryan C. Hanson; "Byron Station, Units 1 and 2 Evaluation of Changes, Tests, and Experiments Baseline Inspection Report 05000454/2017009; 05000455/2017009;" June 29, 2017.
- 2. Letter from Mark Kanavos to the NRC Document Control Desk; "Response to NRC Evaluation of Changes, Tests, and Experiments Baseline Inspection Report 05000454/2017009, 05000455/2017009;" July 31, 2017.

- 3. "Technical specifications;" 10 CFR 50.36; 2017.
- 4. "Changes, Tests, and Experiments;" 10 CFR 50.59; 2017.
- 5. "Maintenance of records, making of reports;" 10 CFR 50.71; 2017.
- Regulatory Guide 1.9; Rev. 3; "Selection, Design, Qualification, and Testing of Diesel-Generator Units Used as Class 1E Onsite Electric Power Systems at Nuclear Power Plants;" U.S. Nuclear Regulatory Commission; Washington, DC.
- Regulatory Guide 1.174; Rev. 2; "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis; "U.S. Nuclear Regulatory Commission; Washington, DC.
- Regulatory Guide 1.177; Rev. 1; "An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications;" U.S. Nuclear Regulatory Commission; Washington, DC.
- Regulatory Guide 1.187; Nov. 2000; "A Guidance for Implementation of 10 CFR 50.59, Changes, Test, and Experiments;" U.S. Nuclear Regulatory Commission; Washington, DC.
- 10. NUREG-0800; Chapter 16; "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition – Technical Specifications," Section 16.1; Rev. 1; "Risk-Informed Decision Making: Technical Specifications."
- 11. 64 FR 53582; "Changes, Tests, and Experiments;" Federal Register; Volume 64; p. 53582; Washington, DC; October 4, 1999.
- 12. 73 FR 74202; "Notice of Opportunity to Comment on Model Safety Evaluation on Technical Specification Improvement to Relocate Surveillance Frequencies to Licensee Control-Risk-Informed Technical Specification Task Force (RITSTF) Initiative 5b, Technical Specification Task Force-425, Revision 2;" Federal Register; Volume 73; p. 74202; Washington, DC; December 5, 2008.
- 74 FR 31996; "Notice of Availability of Technical Specification Improvement to Relocate Surveillance Frequencies to Licensee Control-Risk-Informed Technical Specification Task Force (RITSTF) Initiative 5b, Technical Specification Task Force-425, Revision 3;" Federal Register; Volume 74; p. 31996; Washington, DC; July 6, 2009.
- "Final Safety Evaluation for Nuclear Energy Institute (NEI) Topical Report (TR) 04-10, Revision 1, 'Risk-Informed Technical Specification Initiative 5B, 'Risk-Informed Method for Control of Surveillance Frequencies;'" U.S. Nuclear Regulatory Commission; September 19, 2007.
- "Safety Evaluation by the Office of Nuclear Reactor Regulation Related to Amendment No. 171 to Facility Operating License No. NPF-37 and Amendment No. 171 to Facility Operating License No. NPF-66;" U.S. Nuclear Regulatory Commission; February 24, 2011.
- 16. NRC Enforcement Manual; Revision 10.

- 17. NRC Enforcement Policy; November 1, 2016.
- 18. NRR Office Instruction LIC-105; "Managing Regulatory Commitments Made by Licensees to the NRC;" Revision 7 (publicly available).
- 19. IEEE 387-1984; "IEEE Standard Criteria for Diesel-Generator Units Applied as Standby Power Supplies for Nuclear Power Generating Stations;" November 21, 1984.
- 20. NEI 96-07; "Guidelines for 10 CFR 50.59 Implementation;" Revision 1.
- 21. NEI 99-04; "Guidelines for Managing NRC Commitment Changes;" Revision 0.
- NEI 04-10; "Risk-Informed Method for Control of Surveillance Frequencies;" Revision 1.
- 23. Byron/Braidwood Nuclear Stations Updated Final Safety Analysis Report; Revision 14.
- 24. Byron/Braidwood Nuclear Stations Updated Final Safety Analysis Report; Revision 15.
- Byron Station Technical Specification 3.8.1; "AC Sources Operating;" Amendment 194.
- 26. Byron Station Technical Specification 5.5.19; "Surveillance Frequency Control Program;" Amendment 171.
- 27. EGC Procedure ER-AA-425; "Implementation of the Technical Specification Surveillance Frequency Control Program;" Revision 1.
- 28. EGC Procedure ER-AA-425-1000; "Selecting a Candidate to be Evaluated for a Proposed Surveillance Test Interval (STI) Change;" Revision 1.
- 29. EGC Procedure ER-AA-425-1001; "Surveillance Test Interval (STI) Evaluation Form;" Revision 1.
- 30. EGC Procedure ER-AA-425-1002; "Engineering Evaluation of Proposed Surveillance Test Interval Changes;" Revision 1.
- Byron Station Evaluation BY-13-003; "DG and Integrated Safeguards LOOP ESF Surveillance Test Surveillance Frequency STI Evaluation;" Revision 0.
- 32. Byron Station UFSAR Change DRP 15-073; "Revise Diesel Generator and Integrated Safeguards LOOP/ESF Surveillance Test Frequency from 18 Months to 18 Months on a Staggered Test Basis;" Revision 0.