From: JSheaIA-Hearing Resource
Sent: Monday, February 15, 2021 7:49 PM
To: JSheaIA-HearingNPEm Resource
Subject: RE: McBrearty / TVA
Attachments: ML21046A050_Redacted.pdf

Hearing Identifier: JShea_IA_NonPublic
Email Number: 1267

Mail Envelope Properties (e0a0e286a213464c915fda91b8000355)

Subject: RE: McBrearty / TVA
Sent Date: 2/15/2021 7:49:27 PM
Received Date: 2/15/2021 7:49:30 PM
From: JSheaIA-Hearing Resource

Created By: JSheaIA-Hearing.Resource@nrc.gov

Recipients:
"JSheaIA-HearingNPEm Resource" <JSheaIA-HearingNPEm.Resource@nrc.gov>
Tracking Status: None

Post Office: HQPWMSMRS02.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	3	2/15/2021 7:49:30 PM
ML21046A050_Redacted.pdf	1853014	

Options
Priority: Normal
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:

From: JSheaIA-Hearing Resource
Sent: Saturday, February 13, 2021 4:05 PM
To: JSheaIA-HearingNPEm Resource
Subject: FW: RE: McBrearty / TVA
Attachments: Exhibit 2 cover sheet (NRC to Shea).pdf; 2018 12 14 McBrearty OSHA response.pdf; Exhibit 1 to Reply E171221t025225_CNL-17-068 SQN SERVICE LIFE LETTER.MASTER -3.pdf

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From: Alan Kabat <kabat@bernabeipllc.com>
Sent: Friday, December 14, 2018 2:09 PM
To: Luina, Scott <Scott.Luina@nrc.gov>
Cc: Michael McBrearty [redacted]
Subject: [External_Sender] RE: McBrearty / TVA

Dear Mr. Luina,

Attached please find Mr. McBrearty's response to TVA's position statement, which I am providing to you as it has additional information on his protected disclosures at TVA and TVA's retaliation against him.

Sincerely,

Alan

Alan R. Kabat
Bernabei & Kabat, PLLC
1400 - 16th Street, N.W., Suite 500
Washington, D.C. 20036-2223
tel. (202) 745-1942 (ext. 242)
fax (202) 745-2627
email: Kabat@BernabeiPLLC.com

From: Alan Kabat
Sent: Wednesday, September 26, 2018 11:53 AM
To: 'Scott.luina@nrc.gov' <Scott.luina@nrc.gov>
Cc: 'Michael McBrearty' < >
Subject: McBrearty / TVA

Dear Mr. Luina,

Greetings. On behalf of Michael McBrearty, attached is the whistleblower retaliation complaint that we filed today with OSHA.

Thank you for your interest,

Alan

Alan R. Kabat
Bernabei & Kabat, PLLC
1400 - 16th Street, N.W., Suite 500
Washington, D.C. 20036-2223
tel. (202) 745-1942 (ext. 242)
fax (202) 745-2627
email: Kabat@BernabeiPLLC.com

Hearing Identifier: JShea_IA_NonPublic
Email Number: 1117

Mail Envelope Properties (e86c4823c4d34c329621971888e9bc24)

Subject: FW: RE: McBrearty / TVA
Sent Date: 2/13/2021 4:05:03 PM
Received Date: 2/13/2021 4:05:08 PM
From: JSheaIA-Hearing Resource

Created By: JSheaIA-Hearing.Resource@nrc.gov

Recipients:
"JSheaIA-HearingNPEm Resource" <JSheaIA-HearingNPEm.Resource@nrc.gov>
Tracking Status: None

Post Office: HQPWMSMRS02.nrc.gov

Files	Size	Date & Time
MESSAGE	3808	2/13/2021 4:05:08 PM
Exhibit 2 cover sheet (NRC to Shea).pdf	50232	
2018 12 14 McBrearty OSHA response.pdf	222640	
Exhibit 1 to Reply E171221t025225_CNL-17-068 SQN SERVICE LIFE LETTER.MASTER -3.pdf	1650603	

Options
Priority: Normal
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:

McBrearty / Tennessee Valley Authority,
No. 4-1760-18-153

Exhibit 2

NRC to J. Shea (TVA) (Nov. 28, 2018)

BERNABEI & KABAT, PLLC

ATTORNEYS AT LAW
1400 16th STREET, N.W., SUITE 500
WASHINGTON, D.C. 20036-2223
202.745.1942
FAX: 202.745.2627
WWW.BERNABEIPLLC.COM

LYNNE BERNABEI
ALAN R. KABAT
PETER M. WHELAN

KRISTEN SINISI
MICHAEL ELLEMENT
DEVIN WRIGLEY
KAIYA LYONS*

*ADMITTED IN MN ONLY

By Email and First Class Mail
December 14, 2018

Ms. Christine Schulz, Investigator
U.S. Department of Labor – OSHA
280 Merchants Drive
P.O. Box 2197
Dallas, GA 30132-0037

Re: *McBrearty / Tennessee Valley Authority*, No. 4-1760-18-153

Dear Ms. Schulz:

On behalf of Michael McBrearty, I respectfully submit his response to TVA's Position Statement (Nov. 20, 2018). TVA's Position Statement improperly misrepresents the significance of Mr. McBrearty's protected conduct, and makes false statements about numerous individuals in the workplace, all in an attempt to justify TVA's improbable theory that Mr. McBrearty and numerous other highly experienced TVA employees are somehow involved in a vast conspiracy against Erin Henderson. In fact, the record evidence shows that Ms. Henderson has a consistent pattern of retaliating against employees who have made protected disclosures about her conduct in suppressing safety reports, and that Ms. Henderson has raised demonstrably false allegations about Mr. McBrearty and others, in an attempt to terminate their employment.

For over two years, Mr. McBrearty conscientiously tried to get Erin Henderson (then Senior Manager, Fleet Regulatory Operations and now the Director for Nuclear Regulatory Affairs), and Joe Shea (her supervisor and the Vice President for Nuclear Licensing) to address two NRC-identified violations of regulatory requirements. Instead of making legitimate efforts to address these violations, Ms. Henderson, with the knowledge and support of Mr. Shea, fabricated allegations against Mr. McBrearty that she knew were false, culminating with a wholly implausible attempt to claim that she was somehow the victim of retaliation, when she was in fact the agent of retaliation against Mr. McBrearty and several other co-workers. OSHA should not condone TVA's attempt to conjure a vast conspiracy out of thin air, and should find that TVA retaliated against Mr. McBrearty because he engaged in protected conduct.

I. Ms. Henderson's False Accusations about Mr. McBrearty's Relationship with Michelle Conner.

TVA devotes much of its Position Statement and the attachments in an unsuccessful attempt to argue that Mr. McBrearty had an improper relationship with Michelle Conner, who was then one of Ms. Henderson's subordinates. Unfortunately for TVA, its argument founders on the simple fact that, as Ms. Henderson well knew, Mr. McBrearty was a friend of Ms. Conner's entire extended family, who essentially adopted him for holiday events, as he had no relatives in Tennessee (he had moved to TVA from California, where his family resided). Mr. McBrearty regularly attended holiday dinners and other events with Ms. Conner's husband, her children, her parents, and assorted other family members. This is a perfectly normal relationship in the real world, and not one that would cause any suspicion.

Ms. Henderson, evidently unsatisfied or jealous by the fact that Mr. McBrearty had healthy friendships with many of his coworkers, had TVA's Human Resources department divert its time and energy into conducting a full-blown investigation of his friendship with Ms. Conner. This was motivated by the fact that not only had Mr. McBrearty made protected disclosures about her failure to act on NRC-identified violations (as discussed in his OSHA complaint), but also by the fact that Ms. Conner had similarly engaged in protected conduct leading to her own OSHA complaint (as TVA admits in its Position Statement).

By way of contrast, Ms. Henderson made no attempt to have Human Resources "investigate" Mr. McBrearty's friendships with yet other co-workers, including Peter Wilson (who was Ms. Conner's predecessor as the TVA Corporate Licensing CFAM). Mr. McBrearty and Mr. Wilson were also good friends. For example, Mr. Wilson invited Mr. McBrearty to his home for dinner, met for lunch on weekends, and Mr. Wilson came to Mr. McBrearty's home for a Christmas party. This was well known information and TVA never raised a concern, nor initiated a secret investigation, about it being an inappropriate relationship due to Mr. Wilson's oversight role of Mr. McBrearty's group. After Ms. Conner was removed as the Corporate Licensing CFAM, she was replaced by James Polickoski, the current CFAM who reports to Ms. Henderson. Mr. Polickoski and Mr. McBrearty also shared a close friendship. Again, neither Ms. Henderson nor anyone else in TVA raised concerns, questioned, nor initiated a secret investigation, about the relationship between Mr. Polickoski and Mr. McBrearty. Although TVA's Position Statement asserts that it had concerns that "Conner could not provide impartial oversight over McBrearty's work" due to their normal friendship, Ms. Henderson raised no such concerns about Mr. Wilson's or Mr. Polickoski's ability to oversee Mr. McBrearty's work.

Throughout TVA's Position Statement, TVA incorrectly and with inflammatory language describe the results of the TVA HR Investigation. TVA claims that "there have long been rumors of an inappropriate relationship between McBrearty and the former licensing employee Conner," and that it was "common knowledge that there is a relationship outside of work between McBrearty and Conner." However, the only rumors came from Ms. Henderson herself. Indeed, given this long-standing "rumor," it is inexplicable that Ms. Henderson would have specifically recruited and hired Ms. Conner into her program in February 2016, and then initiated an investigation less than two months later, in April 2016. The only plausible reason for Ms. Henderson to have done so is that Ms. Conner disagreed with Henderson on a variety of NRC regulatory issues, and Ms. Henderson simply used the pretense of an investigation as a weapon against Ms. Conner. Further, Ms. Henderson initiated the investigation shortly after making disparaging remarks about Mr. McBrearty regarding a reportability issue to the TVA executive management team.

TVA asserted not once but twice that Mr. McBrearty and Ms. Conner had a "secret rendezvous" in Clearwater, Florida. *See* Position Statement, at 5 and 8. However, repetition of a falsehood does not make it true. After Ms. Henderson initiated the investigation, TVA HR interviewed Mr. McBrearty. During the interview, they asked Mr. McBrearty if he was in Florida with Ms. Conner. Mr. McBrearty openly told HR that, yes, he was in Florida with Ms. Conner, along with her parents and her children. Mr. McBrearty freely told HR that he and Ms. Conner are good friends, and their friendship has been well known by TVA employees for a long time, including TVA employees at the Corporate Office such as Ms. Henderson. If TVA were to initiate investigations based on office gossip and rumors including those initiated by Ms. Henderson, TVA would be continually performing endless investigations, including investigations of a number of TVA executives.

Indeed, Mr. McBrearty has often times run into other TVA employees outside of work while he was with Ms. Conner and her family. Mr. McBrearty told HR that Ms. Conner and her parents often invited him to family gatherings during the holidays since they know he does not have family in Tennessee. Mr. McBrearty freely told HR that he is close friends with Ms. Conner's children, husband, her parents, her aunts and uncles, and cousins that he has met at family gatherings, and has attended church services with them. TVA's repeated description of a "secret rendezvous" is false, and is a red herring intended only to smear Mr. McBrearty and avoid addressing his protected conduct. Further, Mr. Shea and Ms. Henderson have continued to perpetuate the rumor of a "secret rendezvous" to continually discredit any concern raised by Mr. McBrearty, including his protected disclosures regarding the two NRC violations.

Although the TVA HR investigation report is dated June 17, 2016, Mr. McBrearty was not informed of the results till nearly nine months later. Following his interviews with TVA HR in 2016, Mr. McBrearty repeatedly visited HR throughout the remainder of 2016 to inquire about the status and conclusions of the investigation. Mr. McBrearty repeatedly expressed openness and willingness to answer any additional questions HR may have. TVA repeatedly told him that the investigation was ongoing and information was still being collected – which TVA knew was false as the final report was already issued on June 17, 2016.

In early 2017, on a day when McBrearty was called into his Director's office (Dennis Dimopoulos) and informed that Corporate Regulatory Affairs was again falsely accusing McBrearty of having omitted Ms. Henderson from an email (discussed *infra*), Mr. McBrearty told Mr. Dimopoulos of his frustration in interacting with Corporate Regulatory Affairs (Ms. Henderson's department). He told Mr. Dimopoulos that he no longer feels able to question or challenge Corporate Regulatory Affairs on any issue because every time he raises a challenge, Corporate Regulatory Affairs dismisses it as hard feelings due to the HR investigation and uses it to further smear his reputation. Mr. McBrearty also told Mr. Dimopoulos that his friendship with Ms. Conner and her family was never a secret and that Ms. Henderson, as well as others in TVA Corporate Regulatory Affairs, were well aware of the friendship before Ms. Henderson hired Ms. Conner. During that conversation, Mr. McBrearty asked Dimopoulos if he knew the status of the HR investigation. Mr. Dimopoulos indicated he thought the HR investigation was long completed and that he would follow up with HR.

TVA is well aware of Mr. McBrearty's openness during the HR investigation initiated by Ms. Henderson, and also well aware of the conclusions of the investigation. Page 3 of the investigation report states the following, "It is apparent that the parties have a very close personal relationship but it is not clear as to whether the personal relationship is inappropriate or creates a conflict of interest." *See* TVA Exhibit C, at 3. The HR investigation concluded there was no evidence of an inappropriate relationship, yet TVA continues to assert falsely that the investigation substantiated Ms. Henderson's concern. Remarkably, when Mr. McBrearty met with Inza Hagins-Dyer, TVA's ECP Senior Manager, Ms. Hagins-Dyer told Mr. McBrearty that Ms. Conner was the actual "target" of Ms. Henderson's investigation and that Mr. McBrearty was simply a "casualty."

Despite the investigation not finding anything improper, TVA and Ms. Henderson continue to perpetuate falsehoods about the investigation results. In fact, Mr. McBrearty is aware that Mr. Shea recently falsely told a Corporate Regulatory Affairs employee that Mr. McBrearty is gone because of his "unethical relationship" with the Licensing CFAM (referring to Ms. Conner).

Therefore, TVA's strenuous attempts to argue that the investigation initiated by Ms. Henderson was justified or corroborated founders on the simple fact that the investigation found only that Mr. McBrearty was a good friend with Ms. Conner's *entire extended family*, a healthy and normal relationship that does not form the basis for any of Ms. Henderson's false accusations.

II. Ms. Henderson's False Allegations that Mr. McBrearty Retaliated Against Her.

Remarkably, after Mr. McBrearty persisted in trying to ensure that TVA would bring itself into compliance with its legal obligations in addressing two important NRC findings of violations at the nuclear power plants, Ms. Henderson then turned around and attempted to "shoot the messenger" by implausibly claiming that Mr. McBrearty was part of a vast conspiracy to retaliate against her. Ms. Henderson's March 9, 2018 complaint identifies a number of individuals that she believes are part of this vast conspiracy:

1. Michael McBrearty;
2. Michelle Conner;
3. Beth Wetzel;
4. Ed Schrull; and
5. Alesia Justice.

See E. Henderson Complaint, at 1 (Exhibit C to TVA's Position Statement). In her complaint, and in TVA's investigative report, she alludes to yet other, unnamed individuals who are part of this supposed conspiracy against her. OSHA should reject Ms. Henderson's attempt to defend her own retaliation against Mr. McBrearty by claiming that individuals who engaged in protected conduct or who were associated with Mr. McBrearty had somehow retaliated against her.

Ms. Henderson's verbose allegations of retaliation boil down to two actual criticisms, neither of which is supported by the factual record – (1) that she has heard second-hand stories of Mr. McBrearty speaking badly about her, and (2) that Mr. McBrearty has repeatedly left her off of emails. In fact, other TVA employees have openly and frequently spoke badly about Ms. Henderson to Mr. McBrearty (and not the other way around), and Mr. McBrearty merely did not include Ms. Henderson on an email for a meeting that she was not to be invited to attend.

TVA Employees Openly Criticizing Ms. Henderson to Mr. McBrearty. As to the first allegation, the truth is that *numerous* individuals in Ms. Henderson's own group have openly told Mr. McBrearty of their complaints about Ms. Henderson. Mr. McBrearty has established friendships with many of the individuals working within the TVA Corporate Regulatory Affairs organization (Mr. Shea's and Ms. Henderson's group), and he spoke and interacted with them frequently. The individuals within Ms. Henderson's organization frequently confided in Mr. McBrearty to express their displeasure with their work environment, and their mistrust in both Ms. Henderson and Mr. Shea. At least one senior level employee in Ms. Henderson's group actively solicited an employment position within Mr. McBrearty's organization (at Sequoyah) up until the time that Mr. McBrearty was suspended. The ECP case files, presented as evidence in TVA's Position Statement, clearly and repeatedly describe how Ms. Henderson's employees distrust her, and repeatedly describes their fear of retaliation if they were to disagree with Ms. Henderson. One of the documents that TVA submitted describes two of Ms. Henderson's employees who stated that she retaliated against them on their performance appraisals because they had disagreed with her on a regulatory issue:

> "Some interviews revealed a lack of confidence that issues raised to the VP of Nuclear Licensing [Shea] would be appropriately addressed. Two employees stated they believed they had been retaliated against in the past for making statements they believed the Senior Manager [Henderson] disagreed with or that may have questioned her experience or judgement. One stated that they had expressed concerns with the way in which a nuclear safety-related incident was being reported on, and the Senior Manager [Henderson] retaliated during the performance review process. This same individual stated that it should not have to rise to the level of a nuclear safety concern for them to lose trust in the Senior Manager [Henderson]. A third individual confirmed they did not always know whether it was appropriate to express a differing opinion from that of the Senior Manager [Henderson]."

See NEC-16-00638, at 5 (Exhibit E to TVA's Position Statement).

Further, Mr. McBrearty had a close friendship with Mr. Polickoski, who succeeded Ms. Conner as the CFAM. Indeed, Mr. Polickoski repeatedly vented to Mr. McBrearty regarding his dislike and distrust in Ms. Henderson, through the time that Ms. Henderson filed her "complaint." Some examples include:

1. Mr. Polickoski noted that, while having a drink with Ms. Henderson in the North Bethesda Marriott hotel bar (in Rockville, Maryland) at the NRC Regulatory Information Conference, Ms. Henderson pointed to a nearby table of men and stated, "That's the problem with the nuclear industry, it's run by a bunch of old white guys and I'm going to change that." Mr. Polickoski told Mr. McBrearty he was

particularly troubled by Ms. Henderson's statement because he (Polickoski) could be considered an "old white guy."

2. Jon Johnson told Mr. McBrearty that Ms. Henderson made a very similar statement to him during her tenure as the Sequoyah Licensing Manager (she was Mr. McBrearty's predecessor), and he too was bothered by it because he too is an "old white guy."

3. Mr. Johnson also told Mr. McBrearty about a comment Ms. Henderson made to him regarding her disdain and lack of respect for stay-at-home moms. Mr. Johnson said Ms. Henderson referred to stay-at-home moms as "lazy and out of shape, and who sit around all day doing nothing but eat bon bons." Mr. Johnson said that he was particularly aggravated because his own wife had given up her career to be a stay-at-home mom for their two children.

4. Mr. Polickoski frequently complained to Mr. McBrearty that he often had to stay at work late at night to get his regular work assignments completed because Ms. Henderson often calls him into her office for hours at a time to help her prepare for regular daily meetings. Mr. Polickoski explained that Ms. Henderson is very ignorant and lacks knowledge of the NRC regulatory process and issues, and he has to spend countless hours briefing her on meeting topics so she can be prepared to participate in any discussion. Mr. Polickoski also expressed resentment that Ms. Henderson does not invite him to these same meetings, and that she improperly takes credit for his accomplishments.

A particularly troubling example of Ms. Henderson's conduct that led to well-deserved criticism from senior TVA employees involves her absence from a critical NRC inspection at Sequoyah. Several days before the start of the NRC 2017 Triennial Fire Protection Inspection at Sequoyah, Mr. Polickoski called Mr. McBrearty on his cell phone after hours and was extremely upset because he had just been viciously berated by Ms. Henderson. Mr. Polickoski told Mr. McBrearty that Ms. Henderson was screaming at him for allowing her vacation plans to become a discussion topic at Sequoyah. A few days later, Peter Wilson, who also worked for Ms. Henderson, told Mr. McBrearty that he witnessed the incident and stated that Ms. Henderson was out of control and unprofessional when she screamed at Mr. Polickoski, and in Mr. Wilson's opinion, Ms. Henderson needed to apologize to Mr. Polickoski.

By way of explanation, Ms. Henderson's and Mr. Shea's group, TVA Corporate Regulatory Affairs, has oversight responsibility for NRC inspections performed at each TVA nuclear plant site. Part of their oversight procedure directs them to ensure that the appropriate TVA site individuals are present and onsite for the inspection, and Corporate Regulatory Affairs has previously criticized sites for allowing those employees to schedule leave or even attend required training during NRC inspections. Here, the Triennial Fire Protection Inspection is one of the largest and most resource-intensive baseline inspections. The first week of the 2017 Triennial Fire Protection Inspection was scheduled during Spring Break for many Chattanooga area school students, including Ms. Henderson's children. Ms. Henderson's husband (Michael Henderson) is the Cognizant Engineering Manager of the Sequoyah Fire Protection Program, *i.e.* the exact subject of the NRC Inspection. Mr. Henderson was specifically designated by the Engineering Director to be the key TVA Engineering Manager responsible for the inspection, but he and Ms. Henderson had scheduled vacation during this week of the inspection. The fact that Mr. Henderson (as well as numerous other key Sequoyah Engineering Managers including the Engineering Director) had scheduled vacation during the first week of the inspection became the subject of much discussion throughout the site as to why it was acceptable for those managers to schedule vacation when individual contributors were previously criticized for scheduling vacation or training time. This legitimate criticism of Ms. Henderson by Mr. Polickoski is yet another example of how numerous TVA employees were openly criticizing Ms. Henderson to Mr. McBrearty.

In early January 2018, Mr. Polickoski told Mr. McBrearty about yet another incident with Ms. Henderson and Mr. Shea that occurred during the 2017 Christmas holidays, and which now had Mr. Polickoski even considering leaving TVA. Ms. Henderson had tasked Mr. Polickoski with developing a required response letter to the NRC related to the 2017 Confirmatory Order and which was due shortly after Christmas. Mr. Polickoski told Mr. McBrearty that he had obtained all necessary concurrences, *including* Ms. Henderson's, and only needed Mr. Shea's signature. Mr. Polickoski gave the letter to Mr. Shea for his approval a few days before the vacation period, but Mr. Shea failed to review and sign the letter prior to leaving for vacation. Mr. Polickoski told Mr. McBrearty that he received a very nasty text message from Ms. Henderson around December 26, 2017, indicating that the letter needed a substantial revision and that Mr. Polickoski would need to come into the office during his scheduled holiday leave in order to rewrite the letter. Mr. Polickoski told Mr. McBrearty that when he pointed out to Ms. Henderson that she had previously provided editorial comments and concurred on the letter, she responded that she had never actually signed the concurrence page, and therefore she had never officially concurred. Mr. Polickoski told Mr. McBrearty that he was subsequently called into Mr. Shea's office, where Mr. Shea and Ms. Henderson together "coached" him on his unsatisfactory performance regarding the letter, when in fact they were the ones who completely dropped the ball on reviewing and approving the letter.

Ms. Henderson's Not Being Included on Email Chains. TVA asserted that Mr. McBrearty somehow retaliated against Ms. Henderson by leaving her off of email distributions and omitting her from meeting invitations. Initially, his director (Mr. Dimopoulos) called Mr. McBrearty to his office and told of allegations from Mr. Shea and Ms. Henderson that he was omitting Ms. Henderson from emails. Each time, Mr. McBrearty denied having done so, and requested examples, but none were ever provided.

Finally, on October 4, 2017, McBrearty had a phone discussion with Fred Marcussen, the TVA Corporate Nuclear Security Director, concerning an NRC White Security Finding at Sequoyah. Mr. McBrearty had contacted Mr. Marcussen because he (McBrearty) was informed Corporate Security was recommending to TVA executive management that Sequoyah deny the violation. Mr. McBrearty explained that he and a member of his Licensing staff had reviewed the NRC Enforcement Policy and determined the Sequoyah violation was a sound violation meeting the White Safety Significance criteria described in the Enforcement Policy. Mr. McBrearty advised Mr. Marcussen that denying the violation was unlikely to be successful and would risk damaging TVA's already poor reputation with the NRC. Mr. Marcussen said he had just met with Mr. Shea to discuss the subject, and asked Mr. McBrearty to immediately set up a meeting so that Messrs. Marcussen, Shea, and McBrearty could discuss the issue. Ms. Henderson was <u>not</u> included in the participants that Mr. Marcussen identified. Mr. McBrearty promptly sent out a meeting invite to Messrs. Marcussen and Shea. Within about an hour, Mr. Dimopoulos called Mr. McBrearty into his office, and said Mr. Shea had just called to complain that Mr. McBrearty had "intentionally" left Ms. Henderson off of a meeting invite. Mr. McBrearty then explained to Mr. Dimopoulos what actually transpired, and told Mr. Dimopoulos that these continual and unfounded complaints from Mr. Shea and Ms. Henderson constituted ongoing harassment and needed to stop immediately.

III. Ms. Henderson's Attempts to get Mr. McBrearty to Bad-Mouth Others.

Ms. Henderson's *modus operandi* evidently includes trying to solicit spurious complaints from other TVA employees and to plant negative ideas with other TVA employees, in an attempt to gin up a basis to investigate people who have engaged in protected conduct or otherwise have crossed paths with her. Remarkably, she even tried to do this with Mr. McBrearty. On February 20, 2018, Mr. McBrearty participated in an after-hours telecom with three of Ms. Henderson's employees; Ed Schrull who is a direct report to Henderson, and Tom Hess and Russ Wells who both report to Mr. Schrull. Mr. Schrull called Mr. McBrearty to discuss problems his group was having finalizing the License Amendment Request (LAR) which they were producing (at Mr. McBrearty's urging) to address one of the two 2015 NRC violations.

Several days after this call, Ms. Henderson called Mr. McBrearty and asked if Mr. Schrull had become "unprofessional" during the call and whether Mr. McBrearty felt Mr. Schrull "had created a hostile or chilled work environment" for his two direct reports. Mr. McBrearty was astonished, and described to Ms. Henderson exactly what transpired during the call, and explained that Mr. Schrull acted appropriately and demonstrated good leadership during the call. However, this explanation did not satisfy Ms. Henderson, because only two days after the call with Ms. Henderson, Mr. McBrearty received a call from TVA HR requesting an interview. The HR individual (Wes Wingo) told Mr. McBrearty that he was conducting an investigation regarding a concern filed by Ms. Henderson that, during the February 20, 2018 telecom, Mr. Schrull was creating a hostile or chilled work environment within Mr. Schrull's group. Mr. McBrearty recounted to Mr. Wingo his earlier call with Ms. Henderson and questioned why she would now be initiating an investigation that was unjustified. Mr. Hess later told Mr. McBrearty (in August 2018 while Mr. McBrearty was out on paid leave) that he and his coworkers were (falsely) led to believe that it was Mr. McBrearty who initiated the HR investigation of Mr. Schrull.

However, it is now obvious to Mr. McBrearty that Ms. Henderson sows false seeds with other TVA employees in an attempt to get them to make negative remarks about individuals who have pushed back against her improper directives or otherwise crossed paths with her.

IV. TVA Misrepresented the Results of Its ECP Investigations and Conclusions.

Throughout TVA's Position Statement, TVA misrepresented and misstated the events and conclusions of the ECP investigations conducted at Ms. Henderson's instigation. In fact, the ECP investigation reports repeatedly note concerns by Ms. Henderson's own employees about their reluctance to challenge her or to take their concerns to Mr. Shea for fear of retaliation.

While Mr. McBrearty was on paid leave, he was contacted by Thomas Hess, a Corporate Regulatory Affairs Program Manager, who said that he (Hess) submitted his resignation letter to TVA without another job lined up and was coming up on his last day. Mr. Hess asked Mr. McBrearty to meet for lunch. During their lunch, Mr. Hess told Mr. McBrearty that he resigned from Corporate Regulatory Affairs because of the long-standing caustic and hostile work environment. Mr. Hess explained that everyone in Corporate Regulatory Affairs is afraid to make a mistake and afraid to speak up to either Mr. Shea or Ms. Henderson. Mr. Hess said he could not take going into work each day, which is why he resigned. He stated that he told TVA he was resigning "to pursue missionary work" because he was afraid of burning bridges.

Nonetheless, TVA continues to allow Ms. Henderson's harsh and retaliatory management style to persist, despite the numerous complaints and investigation results by TVA ECP. Below are excerpts from the TVA ECP files provided by TVA in its own Position Statement.

NEC-16-00638 (Exhibit E to TVA's Position Statement)

Page 2, includes the following;

> "For example, concern No. 2 involved a decision by the VP of Licensing to initially deny the CI's 'request' for another employee, who did not work for the CI, to support a regulatory analysis. The VP of Nuclear Licensing made the decision based upon the manner in which the CI made an assignment for this employee. The VP did not consider this a request for an employee to assist, but rather, it came across as a directive from the CI to the employee to go to Sequoyah. At the time the CI made the assignment to the employee, it had not been coordinated properly with Site VP of Watts Bar, who would be losing this particular employee's expertise on a special project at the site. Once this was properly coordinated by the VP of Nuclear Licensing, then the employee was sent to Sequoyah to support the regulatory analysis."

The CI noted above was the CFAM, Michelle Conner, and the "another employee" was Mr. Polickoski. The issue involved the April 2016 High Pressure Fire Protection event at Sequoyah. Mr. Polickoski was hired into TVA Corporate Regulatory Affairs in 2015 as a Senior Program Manager, but had been fully utilized to support the individual sites in analyzing emergent significant operational events; he was sent to Browns Ferry for an extended period of time in 2015, and most recently had led a Watts Bar Fire Protection Program Project team. Following the Sequoyah event, Mr. Polickoski contacted Mr. McBrearty and offered his assistance since Mr. Polickoski had just completed the Fire Protection Project at Watts Bar that had similarities to the Sequoyah event and which may prove useful for Sequoyah's regulatory required safety analysis of the event.

Mr. Polickoski noted that Ms. Conner initially suggested he contact Mr. McBrearty. Mr. Polickoski offered to bring some of the key people from the Watts Bar Fire Protection Project team to Sequoyah for a couple of hours to discuss lessons learned from Watts Bar that may prove useful to the Sequoyah team.

However, the night before the meeting was scheduled to occur, Mr. Polickoski called Mr. McBrearty and told him he had just received a phone call from Mr. Shea, and that Mr. Shea directed Mr. Polickoski <u>not</u> to support Sequoyah on the Fire Protection issue. Mr. Polickoski described the call with Mr. Shea as one of the strangest conversations he ever had, and he could not understand why Mr. Shea would direct anyone in Corporate Regulatory Affairs to not support a site for such a significant safety event. Mr. Polickoski told Mr. McBrearty that one of the primary responsibilities of Corporate Regulatory Affairs is to support the sites for these types of events. Mr. Polickoski also told Mr. McBrearty that he challenged Mr. Shea as to why Corporate Regulatory Affairs would not want to support a site in need, and that Mr. Shea told him Sequoyah "needs to learn to fend for themselves and handle their own issues" (paraphrasing).

In fact, over the following week, Mr. McBrearty was informed by Ms. Conner that the real issue was that Mr. Shea's ego was "hurt" in that he felt the Sequoyah Site Vice President should have contacted Mr. Shea directly to request assistance. Mr. McBrearty subsequently communicated this to the Sequoyah SVP, who then called Mr. Shea and obtained Mr. Shea's concurrence to utilize Mr. Polickoski's assistance. During the conversation with the SVP, the SVP (who was fairly new to Sequoyah at the time and is since deceased) asked Mr. McBrearty if this was typical of Mr. Shea to have such a big ego.

Here, Mr. Shea, the TVA Vice President of Nuclear Regulatory Affairs, gave Ms. Conner and Mr. Polickoski two very different stories as to why he directed Mr. Polickoski <u>not</u> to support the Sequoyah Nuclear Plant for a safety significant event, and then, as documented in NEC-16-00638, Mr. Shea told ECP a different third version of his story during ECP's official investigation of Ms. Conner's complaint. This behavior is consistent with Ms. Hagins-Dyer's subsequent comment to Mr. McBrearty that TVA executive management, particularly Mr. Shea, continually failed to intervene and address the ongoing unhealthy work environment in Corporate Regulatory Affairs.

Page 4 of NEC-16-00638 (Exhibit E) includes the following;

> "The Senior Manager of Fleet Regulatory Operations has a pattern of writing up individuals on service reviews in a manner that can appear to be retaliatory. For example some individuals reported having negative comments added to their service reviews about the need for respectful communications when the employees may have expressed an opinion that differed from hers. The investigator noted five separate instances in three different departments in the past three years (not including the Concerned Individuals stated fear of being written up), where employees were either placed on a Performance Improvement Plan or have received negative comments on service reviews for what they perceived as disagreeing with the Senior Manager. ***Two individuals indicated that they are under a physician's care for ongoing stress-related illnesses that developed once they began working for the Senior Manager.***" (emphasis added)
>
> "Just as the CI has missed a number of days since working for the Senior Manager, there

> are instances where employees report that the Senior Manager's management style is suspected to be a factor in absenteeism of others, and to have resulted in lower productivity among those who report to her."

This confirms that Ms. Henderson – the "Senior Manager" in these excerpts – acts in a retaliatory way against her subordinates.

NEC-17-00410 (Exhibit G to TVA's Position Statement).[1]

Page 3 of NEC-17-00410 includes the following;

> "Another individual stated that they would not feel safe going to the Vice President of Licensing [Shea] or their management chain of command about any issues involving the SM [Senior Manager, Henderson]."
>
> "Some stated they lacked trust in management and feared they would be demoted for difficulties that they have experienced while working for the SM [Henderson]. At least one person felt the SM [Henderson] had recently questioned individuals about working relationships between the site and Corporate Licensing. This individual felt the SM [Henderson] was trying to elicit negative responses about the CI [McBrearty]."

In fact, one individual in Sequoyah Site Licensing told Mr. McBrearty that during Ms. Henderson's short tenure as the Sequoyah Licensing Manager, he went to HR numerous times to complain about Ms. Henderson's abusive management style but TVA never did anything about it. He noted he subsequently developed a severe stomach ulcer requiring prescription medication. He said his ulcer started to clear up a few months after Ms. Henderson departed the site for her new position at the corporate office.

Yet another Sequoyah Site Licensing individual reported similar experiences as to what was reported in the ECP complaints, in that Ms. Henderson kept secret notes and marked her down on her performance review for issues the individual had no control over.

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[1] In an apparent typographical error, the cover sheets for Exhibits F and G were switched. The cover sheet for Exhibit F states that it is the summary for NEC-17-00410, but Exhibit F instead has the summary for NEC-17-00683. Conversely, the cover sheet for Exhibit G references NEC-17-00683, but contains the summary for NEC 17-00410.

V. Lack of Independence of TVA's ECP Investigations.

Further, TVA's reliance upon the "results" of its internal ECP investigations is misplaced, since even both the current and former directors of TVA's Employee Concerns Program have openly admitted that the ECP process is not a neutral process, but is biased.

While Mr. McBrearty was on paid leave, he was contacted by a retired TVA ECP Manager, Geoff Cook, who was Inza Hagins-Dyer's predecessor. Mr. Cook cautioned Mr. McBrearty to "be careful" because TVA executive management frequently weigh-in heavily on ECP investigation results, and significantly change ECP investigation results as they so desire. Mr. Cook noted this was an ongoing problem during his tenure in TVA ECP. Mr. Cook also said that Ms. Henderson seems to be well connected to the TVA executives, and it is rumored that Henderson is particularly close with David Czufin (Senior Vice President for Engineering and Operations Support, and Mr. Shea's supervisor).

Mr. Cook also said he has kept in touch with Ms. Hagins-Dyer (the current ECP director) and that she told him she has experienced the same problem with TVA executives. Mr. Cook explained that Ms. Hagins-Dyer was upset because she had been cut out of the loop regarding the McBrearty investigation, and she was not aware of a report or the fact that Mr. McBrearty had been suspended until well after the action was taken, and even then, had only learned about it through the rumor mill. Ms. Hagins-Dyer also told Mr. Cook that TVA recently excluded her from a significant meeting with the NRC regarding the Watts Bar Chilled Work Environment, and that she only learned of the meeting through one of her direct reports. Ms. Hagins-Dyer told Mr. Cook she was concerned for her job because of TVA's recent behavior toward her.

Indeed, when Ms. Hagins-Dyer met with Mr. McBrearty in late 2017 to provide the ECP conclusions regarding investigation NEC-17-00683, she told him that his concern was partially substantiated and the following actions would be taken:

> (1) disciplinary action would be taken against Ms. Henderson in accordance with TVA Policy;
> (2) a Corrective Action Letter would be issued to Corporate Regulatory Affairs specifying required actions; and
> (3) Mr. Shea would meet separately with both Ms. Henderson and Mr. McBrearty to work on alleviating the ongoing tension.

However, several weeks later, Ms. Hagins-Dyer asked Mr. McBrearty if Mr. Shea had met with him. Mr. McBrearty responded "no," and mentioned that Mr. Shea had briefly stopped by his office one day at Sequoyah and simply asked him how things were going at Sequoyah and then left. Ms. Hagins-Dyer responded that this is yet another example of TVA executive management (Shea) failing to intervene and address the ongoing work environment in Corporate Regulatory Affairs. Mr. McBrearty asked Ms. Hagins-Dyer if he was allowed to see a copy of the Corrective Action Letter sent to Corporate Regulatory Affairs. Ms. Hagins-Dyer responded that, after her initial meeting with Mr. McBrearty to discuss the investigation results, TVA management decided that a Corrective Letter was not needed and therefore one was not issued. This specifically corroborates the unsolicited information provided by Mr. Cook, *i.e.*, that TVA management actively influences and changes ECP investigation results. Ms. Hagins-Dyer often told Mr. McBrearty that she had numerous complaints about Ms. Henderson's abusive style.

Therefore, OSHA should give little weight to TVA's attempts to argue that the findings and conclusions of the ECP "investigations" support TVA's position, when both the current and former ECP directors at TVA have openly complained about the lack of independence of those investigations, given management's extensive interference with the investigations.

VI. TVA Failed to Address the Safety-Related Regulatory Violations That Mr. McBrearty Persisted in Reporting.

TVA's Position Statement takes an openly dismissive approach towards addressing the two NRC violations received in 2015, reflecting TVA's willingness to flout its obligations under the NRC statute and regulations. As set forth in more detail in Mr. McBrearty's OSHA complaint, the NRC inspection report directed TVA to provide a written response within 30 days if TVA disagreed with the violations. NRC Region II management (Jonathan Bartley) repeatedly told Mr. McBrearty that TVA was outside of NRC process by proposing to submit informational letters for each violation, and neither denying nor correcting the violations. Mr. McBrearty repeatedly communicated this to Mr. Shea and Ms. Henderson, but they repeatedly and consistently refused to address his concerns.

TVA's Position Statement blandly dismisses this issue as Mr. McBrearty merely disagreeing with a "business decision," and Ms. Henderson's internal complaint similarly minimizes the violations, referring to the two violations as "two narrow technical issues that are a couple of years old."

In fact, one of the two NRC violations, *i.e.*, the service life issue, affected thousands of safety-related equipment components. In 2015, TVA, through TVA's Corporate Engineering department, the Sequoyah Site Engineering organization, and a well-respected engineering consulting firm (MPR Associates) developed a cost estimate, which estimated the cost to correct the violation at Sequoyah alone would be over $205 million dollars. The TVA Watts Bar and Browns Ferry nuclear plants would require similar corrective action if TVA was unsuccessful finding a regulatory solution. This estimate was stated in the Service Life Denial Letter authored by Mr. McBrearty, and that Mr. Shea belatedly signed in December 2017. *See* J. Shea to NRC, at E-22 (Dec. 21, 2017) ("The estimated cost to accomplish this extraordinary effort is approximately $205 million"). (attached hereto as Exhibit 1). It was openly discussed within TVA that this $205 million estimate was likely a low estimate.

The other NRC violation involved a component associated with the safety-related Emergency Raw Cooling Water System. Sequoyah Engineering estimated this issue would cost TVA in the millions of dollars to correct. As described in Mr. McBrearty's OSHA complaint, TVA deliberately ignored Mr. McBrearty's numerous attempts to address the issues, and failed to take action until it was clear that the NRC was going to propose additional enforcement action to force TVA to address the violations.

TVA's Position Statement also incorrectly stated that Mr. McBrearty's Condition Reports, "did not concern a specific safety issue that needed corrective action," and that "In fact, McBrearty used the Condition Report to disagree with a business decision by management rather than compliance with regulatory requirements." However, Mr. McBrearty's Condition Reports were directly related to the two NRC regulatory violations described above regarding thousands of safety-related components, and TVA's repeated failure to address the violations.

Therefore, OSHA should not credit TVA's attempts to downplay the significance of the safety-related violations that Mr. McBrearty insisted be investigated and resolved, given that the cost of addressing those violations could have exceeded $205 million at Sequoyah alone.

VII. TVA's Suspension and Constructive Discharge of Mr. McBrearty.

As described in McBrearty's OSHA complaint, just over two weeks prior to TVA suspending him, he raised issues during the Licensing Peer Team telecon regarding recent numerous issues and violations at the TVA plant sites that originated from actions at the TVA corporate office (*i.e.*, Mr. Shea's and Ms. Henderson's group). During the telecon, Mr. Shea repeatedly badgered Mr. McBrearty by asking Mr. McBrearty if he was suggesting that there was a problem in Mr. Czufin's organization (Mr. Shea's boss and a Senior VP reporting directly to the Chief Nuclear Officer). Mr. Shea's conduct came across as veiled threats, *i.e.*, that if Mr. McBrearty persisted in discussing these issues, they would be presented to Mr. Czufin as Mr. McBrearty's personal complaints. However, at the end of the call, Mr. Shea finally "agreed" that the issues raised by Mr. McBrearty should be included in the next Peer Team face-to-face agenda. This was a false resolution, since TVA then suspended Mr. McBrearty on May 25 prior to the next Peer Team Meeting, and the issues he raised were then removed from the Peer Team Agenda. TVA's Position Statement fails to even address this sequence of events.

TVA's consistent refusal to comply with (or willingness to evade) NRC regulations is most recently revealed in the November 28, 2018 NRC Inspection Report issued for Watts Bar (Inspection Report 05000390/2018013, 05000391/2018013) (attached hereto as Exhibit 2). The NRC documented not one, nor two, but three violations related to TVA's failure to comply with both the 2009 and 2017 Confirmatory Orders both of which were issued to address ongoing safety culture issues and which are applicable to the entire TVA fleet, including the Corporate Office. Both of Confirmatory Orders and the Chilled Work Environment Letter required corrective actions for the entire TVA fleet, including the Corporate Office. The 2017 Confirmatory Order was issued after the NRC determined that TVA submitted inaccurate information (violating 10 C.F.R. § 50.9) regarding the 2016 Chilled Work Environment Letter, and after the NRC determined that TVA failed to comply with the 2009 Confirmatory Order related to safety culture.

What is most relevant is that the three recent violations are specifically related to TVA's failure to adequately implement the Adverse Employment Action Program (as required by both Confirmatory Orders) in that TVA failed to adequately consider the impact on employee protection laws and the impact on nuclear safety culture for certain types of adverse actions including denial of an employee's access, which is exactly what TVA did to Mr. McBrearty when TVA denied his access for three months resulting in his forced resignation and constructive discharge. The violations documented in the recent inspection report also note TVA failed to adequately consider the impact of other types of adverse employment actions, including unfavorable performance appraisals.

The ECP files provided with TVA's Position Statement are full of examples where employees complain about inappropriately being marked down (retaliated against) on performance appraisals for disagreeing with Ms. Henderson, and it is believed that TVA failed to implement the requirements of the Confirmatory Orders each time Ms. Henderson was allowed to administer these Adverse Employment Actions. Additionally, the 10 C.F.R. § 50.9 violation – inaccurate information submitted in response to the Chilling Effect Letter – was one of the violations Mr. McBrearty specifically pointed out as an example of violations that appeared to have resulted from performance at the Corporate Office (he also pointed out 5 other examples as described in his OSHA complaint). During the aforementioned Peer Team call, Mr. McBrearty recommended that this example, along with the other five, should be reviewed for potential common causes. It is no coincidence that Mr. McBrearty was suddenly suspended within weeks after making this recommendation, and that TVA Corporate Regulatory Affairs then deleted Mr. McBrearty's recommendation from the Peer Team Agenda.

Further, with respect to the two NRC violations from 2015 (the Service Life issue and the Kirk Key Interlock issue), Mr. McBrearty diligently tried to perform his job responsibilities for over two years, but was continually rebuked by Mr. Shea and Ms. Henderson, until his suspension in May 2018, and constructive discharge in August 2018. As described in Mr. McBrearty's OSHA complaint, the NRC has previously established that a Site Licensing Manager can be held individually liable for willfully failing to meet regulatory requirements, including if the act meets the criteria for careless disregard as defined in the NRC Enforcement Manual.

Finally, on or about August 24, 2018, Mr. McBrearty spoke with Mr. Dimopoulos, the current Sequoyah Operations Director and Mr. McBrearty's former Director (in 2016 and 2017). Mr. McBrearty contacted Mr. Dimopoulos to say goodbye and wish him well in his future with TVA. During the phone call, Mr. Dimopoulos said that the Sequoyah Site Leadership Team, including the Sequoyah Site Vice President, were never aligned with the actions that the TVA corporate office (*i.e.*, Mr. Shea and Ms. Henderson) had taken against McBrearty. At around the same time, Mr. Johnson (from Sequoyah Licensing Group), contacted Mr. McBrearty and told him that the entire Sequoyah Licensing Group wanted to treat him to lunch at a Chattanooga restaurant, which they did. During that lunch, Mr. Johnson told Mr. McBrearty that the current Sequoyah Site Vice President (Tony Williams) insisted on paying for the lunch, and told Mr. Johnson to give Mr. McBrearty his (Williams') best regards. This was several weeks after TVA stated that the final investigation report was signed and issued, and shows that the senior management at Sequoyah knew that Mr. McBrearty was an honest and well-respected manager.

Similarly, the NRC resident inspectors at Sequoyah had a good working relationship with Mr. McBrearty, and the NRC inspectors openly complained to Mr. McBrearty about Ms. Henderson after she left Sequoyah, because she was a roadblock to their efforts to monitor Sequoyah and enforce TVA's compliance with the NRC statute and regulations.

VIII. TVA's False Explanations Are Strong Evidence of Pretext.

OSHA should find that TVA's false explanations for investigating Mr. McBrearty and TVA's false explanations for the outcomes of the retaliatory investigations that Ms. Henderson initiated after Mr. McBrearty persisted in trying to ensure that Ms. Henderson and Mr. Shea addressed the NRC-identified violations, are strong evidence of pretext.

As the Supreme Court held in *Reeves*, proof that an employer's explanation is false, as here, is powerful evidence of unlawful discrimination:

> In reaching this conclusion, however, we reasoned that it is *permissible* for the trier of fact to infer the ultimate fact of discrimination from the falsity of the employer's explanation. . . .
>
> Proof that the defendant's explanation is unworthy of credence is simply one form of circumstantial evidence that is probative of intentional discrimination, and it may be quite persuasive. [*St. Mary's Honor Center v. Hicks*, 509 U.S. 502, 517 (1990)] ("[P]roving the employer's reason false becomes part of (and often considerably assists) the greater enterprise of proving that the real reason was intentional discrimination"). **In appropriate circumstances, the trier of fact can reasonably infer from the falsity of the explanation that the employer is dissembling to cover up a discriminatory purpose.** Such an inference is consistent with the general principle of evidence law that the factfinder is entitled to consider a party's dishonesty about a material fact as affirmative evidence of guilt. Moreover, once the employer's justification has been eliminated, discrimination may well be the most likely alternative explanation, especially since the employer is in the best position to put forth the actual reason for its decision. . . .
>
> Thus, a plaintiff's prima facie case, combined with sufficient evidence to find that the employer's asserted justification is false, may permit the trier of fact to conclude that the employer unlawfully discriminated.

Reeves v. Sanderson Plumbing Products, Inc., 530 U.S. 133, 147-48 (2000) (emphasis added).

Here, too, TVA's asserted explanations for investigating Mr. McBrearty and for placing him on leave, are easily proven false, thereby allowing the trier of fact to find that TVA unlawfully retaliated against Mr. McBrearty.

IX. Conclusion.

For the foregoing reasons, and those set forth in Mr. McBrearty's OSHA complaint, OSHA should find that TVA violated the Energy Reorganization Act, 42 U.S.C. § 5851 *et seq.*, and NRC Regulation 10 C.F.R. § 50.7, when it initiated a retaliatory investigation of Mr. McBrearty, and used that investigation to place him on paid leave in order to force his termination.

Sincerely,

Alan R. Kabat

Alan R. Kabat
Attorney for Michael McBrearty

Enc.

cc: Mr. Michael McBrearty
Stephen C. Chin, Esquire (TVA)

McBrearty / Tennessee Valley Authority,
No. 4-1760-18-153

Exhibit 1

J. Shea (TVA) to NRC (Dec. 21, 2017)

TVA

Tennessee Valley Authority, 1101 Market Street, Chattanooga, TN 37402

CNL-17-068

December 21, 2017

10 CFR 50.4
10 CFR 50.109

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

Sequoyah Nuclear Plant, Units 1 and 2
Renewed Facility Operating License Nos. DPR-77 and DPR-79
NRC Docket Nos. 50-327 and 50-328

Subject: **Denial of a Non-Cited Violation Involving the Qualification of Class 1E Electrical Equipment and Backfit Claim Proposing the NRC Action Constitutes a Plant-Specific Backfit**

Reference: Letter from NRC to TVA, Sequoyah Nuclear Plant - NRC Evaluation of Changes, Tests, and Experiments and Permanent Plant Modifications Inspection Report 05000327/2015007 and 05000328/2015007, dated September 14, 2015

On July 31, 2015, the Nuclear Regulatory Commission (NRC) completed an inspection at Sequoyah Nuclear Plant (SQN) for Evaluation of Changes, Tests, and Experiments and Permanent Plant Modifications as documented in the above reference. NRC inspectors documented four non-cited violations (NCV) of very low safety significance (green) and one Severity Level IV NCV.

In accordance with 10 CFR 50.4 and the NRC Enforcement Policy, Tennessee Valley Authority (TVA) hereby submits its basis for why NCV 05000327, 328/2015007-05, Failure to Identify Qualification Criteria Associated with Class 1E Electrical Component Static Performance Characteristics," (SQN NCV) as documented in the above Reference, should not have been issued.

TVA's position is that the SQN NCV, as discussed in the Enclosure, represents a new NRC Staff position that appears to significantly expand the equipment qualification requirements for SQN by requiring SQN to establish qualification criteria for design life and certain performance characteristics for Class 1E molded case circuit breakers (MCCBs) in mild environments, contrary to the Commission's regulation in 10 CFR 50.49(c)(3), regulatory guidance, industry standards, and SQN's licensing basis. SQN's equipment qualification program for Class 1E MCCBs in mild environments is consistent with the Commission's regulations, guidance, and SQN's licensing basis.

Following receipt of the reference noted above, TVA did not initially dispute the SQN NCV because TVA's understanding was that the issue raised by the SQN NCV would be addressed by the NRC generically in an NRC Regulatory Issue Summary (RIS) and because TVA was informed that Region II would revisit the SQN NCV upon completion of this RIS addressing equipment service life issues. TVA actively engaged with the industry and the NRC in an attempt to appropriately resolve the issue raised in the SQN NCV. TVA personnel participated in public meetings and provided comments on the draft RIS since 2015. On September 14, 2017, TVA participated in a public meeting with the NRC Committee to Review Generic Requirements (CRGR) to provide comments on the draft RIS. On October 17, 2017, the CRGR issued a letter to the NRC Executive Director for Operations and recommended that the draft RIS not be issued. TVA is now submitting this denial and Backfit Claim setting forth the reasons that the SQN NCV should not have been issued, and making a backfit claim to the NRC Staff if the SQN NCV is not withdrawn.

If the NCV is not withdrawn, this letter provides a Backfit Claim for the SQN NCV because NCV 05000327, 328/2015007-05 is a new NRC Staff position that would greatly expand the requirements for equipment qualification in mild environments. As discussed in the Enclosure, the NRC Staff is required to conduct a backfit analysis for new staff positions as required by 10 CFR 50.109(a)(3). That backfit analysis must demonstrate that the backfit would lead to a cost-justified, substantial increase in public health and safety before the new NRC Staff position can be imposed on SQN. The Enclosure describes the basis for denying NCV 05000327, 328/2015007-05 and the Backfit Claim.

There are no regulatory commitments contained in this submittal. If you have any questions, please call Michael McBrearty, SQN Site Licensing Manager at (423) 843-7170.

Sincerely,

J. W. Shea
Vice President, Nuclear Regulatory Affairs and Support Services

Enclosure: Denial for Violation Documented in NRC Inspection Report 05000327, 328/2015007 and Backfit Claim

cc: (Enclosure)

Director of the Office of Nuclear Reactor Regulation (NRR)
Director of the Office of Enforcement
Regional Administrator - Region II
NRC Branch Chief - Region II
NRC Senior Resident Inspector - Sequoyah Nuclear Plant
NRC Project Manager - Sequoyah Nuclear Plant

ENCLOSURE

TENNESSEE VALLEY AUTHORITY

DENIAL FOR VIOLATION DOCUMENTED IN

NRC INSPECTION REPORT 05000327, 328/2015007

AND BACKFIT CLAIM

ENCLOSURE
DENIAL FOR VIOLATION DOCUMENTED IN NRC INSPECTION REPORT
05000327, 328/2015007 AND BACKFIT CLAIM

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ENCLOSURE
DENIAL FOR VIOLATION DOCUMENTED IN NRC INSPECTION REPORT
05000327, 328/2015007 AND BACKFIT CLAIM

Executive Summary

On July 31, 2015, the Nuclear Regulatory Commission (NRC) completed an inspection at Sequoyah Nuclear Plant (SQN) for Evaluation of Changes, Tests, and Experiments and Permanent Plant Modifications as documented in Inspection Report 05000327/2015007 and 05000328/2015007, dated September 14, 2015. NRC inspectors documented a non-cited violation (NCV) of very low safety significance (green) involving the failure to identify qualification criteria associated with Class 1E electrical component static performance characteristics (SQN NCV).

The violation specifically involved safety-related Class 1E replacement breakers located in mild environments at SQN installed under Design Change Notices (DCNs) 23085 and 23082. The breakers from DCN 23085 are molded case circuit breakers (MCCBs) for the normal and alternate supply to the 480 Volt (V) Essential Raw Cooling Water (ERCW) Motor Control Centers (MCCs); the replacement breaker was necessitated by equipment obsolescence. The breaker from DCN 23082 is a MCCB associated with the 480V reactor vent boards that feed the ice condenser air handling units; the replacement breaker was evaluated as equivalent to the original breaker.

Tennessee Valley Authority (TVA) has reviewed the broad base of regulatory requirements and guidance and related industry standards as well as the SQN plant specific licensing basis; e.g. 10 CFR 50.49, NUREG-0800, RG 1.89, GL 82-09, and relevant IEEE standards. The applicable SQN Supplemental Safety Evaluation Reports (SSERs), as developed and approved by the Office of Nuclear Reactor Regulation (NRR) during original licensing, approved the SQN program and its alignment to the above regulations, standards, and guidance. TVA's review of the current SQN program found it to be consistent with the SSER approved program as originally reviewed and approved by NRR. Based on this review, TVA concluded that SQN programs and processes for qualification of Class 1E electrical equipment in mild environments are appropriate and consistent with SQN licensing basis, and regulatory requirements and guidance. Therefore, based on the understanding of and adherence to the program as originally approved, the SQN NCV represents a new NRC Staff position and new regulatory requirement.

As discussed above, SQN is in compliance with its approved licensing basis consistent with applicable Commission guidance, standards, and regulations, and SQN's design basis is in compliance with the Commission's regulations. The replacement breakers at issue were procured in accordance with TVA specifications and standards for safety-related electrical equipment, including environmental and seismic qualification requirements appropriate to equipment located in mild environments. As part of the review of DCNs 23085 and 23082, TVA determined that, consistent with the original breakers, the replacement breakers are not susceptible to significant degradation because they are installed in mild environments (as defined in 10 CFR 50.49(c)(3)), and, therefore, a qualified life is not required to be established, provided that the breakers are procured and maintained appropriately for the application. The replacement breakers were determined to be functionally equivalent to the originally installed breakers. The breakers are maintained and tested in accordance with the SQN breaker program, consistent with licensing and design requirements for safety-related Class 1E breakers located in mild environments.

TVA believed that the issue related to qualification criteria associated with Class 1E electrical component static performance characteristics would be addressed through a Regulatory Issue Summary (RIS), “Disposition of Information Related to the Time Period that Safety-Related Structures, Systems or Components are Installed”. On September 14, 2017, TVA participated in a public meeting with the NRC Committee to Review Generic Requirements (CRGR) to provide comments on the draft RIS. On October 17, 2017, the CRGR issued a letter to the NRC Executive Director for Operations and recommended that the draft RIS not be issued due to the “risk of unintended backfit” and the potential to “cause backfit problems during implementation of the inspection program.” Consequently, TVA is submitting a denial of the NCV and requests that the NRC withdraw the NCV. Should the NRC not withdraw the NCV, TVA is concurrently submitting a backfit claim so that the NRC Staff, in accordance with 10 CFR 50.109, “Backfitting,” and the policy reflected in NUREG-1409, “Backfitting Guidelines,” will review the NRC Staff position in the SQN NCV as a plant-specific backfit. As a backfit, the NRC Staff cannot impose the position until it has performed the required backfitting analysis pursuant to 10 CFR 50.109(a)(3) and determined the backfit is justified.

I. NRC NON-CITED VIOLATION 05000327, 328/2015007-05: Failure to Identify Qualification Criteria Associated with Class 1E Electrical Component Static Performance Characteristics

NRC Inspection Report 05000327, 328/2015007, dated September 14, 2015, states non-cited violation (NCV) 05000327, 328/2015007-05 as follows (emphasis added):

10 CFR Part 50, Appendix B, Criterion III, “Design Control,” stated, in part, that “Measures shall be established for the selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the safety-related functions of the structures, systems and components.” *Contrary to the above, since 2013, the licensee failed to establish measures for the selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the safety-related functions of the structures, systems and components. Specifically, the licensee failed to establish measure for the selection and review for suitability of static and dynamic performance characteristics used in the design and qualification of Class 1E electrical equipment.* Because the finding was of very low safety significance (Green) and was entered into the licensee’s corrective action program as CR 1064785, this violation will be treated as an NCV consistent with section 2.3.2 of the NRC enforcement policy. This violation is identified as NCV 05000327, 328/2015007-05, Failure to Identify Qualification Criteria Associated with Class 1E Electrical Component Static Performance Characteristics.

In describing this violation, NRC Inspection Report (IR) 2015-007, also stated, “The inspectors identified that the licensee did not establish qualification criteria for design life,” and “[t]he inspectors determined that, the static and dynamic performance characteristics over normal service conditions described conditions related to shelf life and design life.”

TVA Position

TVA’s position is that 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” was appropriately applied to the design, selection and installation of the safety-related molded case circuit breakers described in the violation. The replacement breakers described in the NCV are functionally equivalent to the original breakers installed in the plant, and comply with the same design requirements as the original breakers. Consistent with the original breakers, once installed, station surveillance and preventive maintenance programs, through implementing procedures, provide continued review of the circuit breakers for suitability and quality. This practice is consistent with SQN’s approved licensing basis, and with long-established NRC rules and guidance for safety-related electrical equipment located in mild environments, and with industry practice for such equipment. The NRC finding effectively treats safety-related electrical equipment located in mild environments similarly to the treatment of such equipment located in a harsh environment. The NRC finding requires the replacement breakers to satisfy a different requirement than the original breakers; i.e., the requirements for equipment installed in harsh environments. 10 CFR Part 50.49, establishes requirements for environmental qualification of electrical equipment important to safety for nuclear power plants, and 10 CFR Part 50.49(c) specifically states, “[r]equirements for (1) dynamic and seismic qualification of electric equipment important to safety, (2) protection of electric equipment important to safety against other natural phenomena and external events, and (3) environmental qualification of electric equipment important to safety located in a mild environment are not included within the scope of this section.”

When TVA replaced the subject equipment described in the SQN NCV, the procurement specifications were consistent with the procurement specifications for the original equipment during initial plant licensing. TVA's program for safety-related equipment located in a mild environment is consistent with the NRC position/requirements delineated in Generic Letter 82-09.(GL 82-09), Question and Answer (Q&A) 4, which was issued during promulgation of the rule specified in 10 CFR Part 50.49, "Environmental Qualification of Safety Related Electrical Equipment." GL 82-09, Q&A 4 states:

> Q. Can periodic surveillance, testing and maintenance programs adequately demonstrate qualification of electrical equipment in mild environments?
>
> "A. For existing equipment located in mild environments, equipment environmental qualification can be adequately demonstrated and maintained by the use of the following three programs:
>
> "1. A periodic maintenance, inspection, and/or replacement program based on sound engineering practice and recommendations of the equipment manufacturer which is updated as required by the results of an equipment surveillance program;
>
> "2. A periodic testing program to verify operability of safety related equipment within its performance specification requirements (system level testing of the type typically required by the plant technical specifications may be used); and
>
> "3. An equipment surveillance program which includes periodic inspections, analysis of equipment and component failures, and a review of the results of preventive maintenance and periodic testing programs.
>
> "For replacement and new equipment, the licensee must also establish and document the environmental design basis for the equipment locations. The purchase specifications must reflect those design basis environmental conditions that are bounding for all applicable equipment locations."

The Statements of Consideration for the 10 CFR 50.49 rule (48 FR 1983) further note that, "[t]he final rule does not cover the electric equipment located in a mild environment. The Commission has concluded that the general quality and surveillance requirements applicable to electric equipment as a result of other Commission regulations, including 10 CFR Part 50, Appendix B (see for example, Regulatory Guide 1.33, 'Quality Assurance Requirements (Operation), Revision 3) are sufficient to ensure adequate performance of electrical equipment important to safety located in mild environments. Since it has been concluded that no further environmental qualification requirements are needed for such equipment provided they fully satisfy all other applicable regulations, the Commission has determined that no additional requirements are necessary with respect to electric equipment located in mild environments in order for licensees to satisfy, with respect to such equipment, existing license conditions or technical specifications calling for qualification of safety-related electric equipment in accordance with DOR Guidelines or NUREG-0588."

TVA's review showed evidence that TVA complies with its approved licensing basis, and with the NRC staff position established in GL 82-09, Q&A 4, and is consistent with the Statements of Consideration for 10 CFR Part 50.49 published at 48 FR 1983 associated with safety-related electrical equipment in a mild environment. For the replacement equipment described in the SQN NCV, the purchase specification reflected those design basis environmental conditions that are bounding for the equipment location.

In IR 2015-007, the NRC introduced a new staff position/interpretation regarding requirements for safety-related equipment located in a mild environment; specifically with respect to the NRC's interpretation that static and dynamic performance characteristics require specification of a shelf life and design life. This interpretation effectively extends the rules for safety-related equipment located in harsh environments to safety-related equipment located in mild environments. This new position conflicts with existing NRC rules and guidance specifically for equipment located in mild environments. The NRC violation described in IR 2015-007 conflicts with the staff position delineated in GL 82-09, and establishes new requirements for safety-related equipment located in a mild environment.

II. DENIAL AND BACKFIT CLAIM, NRC NON-CITED VIOLATION 05000327, 328/2015007-05 is a New Staff Position Which Requires a Backfit Analysis

1. Background

On May 7, 2015, NRC issued Task Interface Agreement (TIA) 2014-01 concerning inspections conducted during 2012 and 2013 at Monticello, D.C. Cook, and Palisades where NRC inspectors identified several safety-related structures, systems, or components (SSCs) in mild environments installed for periods greater than the period of time specified in vendor correspondence, vendor manuals, or Certificates of Compliance. The TIA specified that all SSCs require a determination of how long an installed SSC can be relied upon to perform its safety function.

On September 14, 2015, NRC issued Non-Cited Violation (NCV) 05000327, 328/2015007-05 documented in Inspection Report 05000327, 05000328/2015007 (SQN NCV) for SQN. The violation specifically involved safety-related Class 1E replacement breakers located in mild environments at SQN installed under Design Change Notices (DCNs) 23085 and 23082. The breakers from DCN 23085 are molded case circuit breakers (MCCBs) for the normal and alternate supply to the 480 Volt (V) Essential Raw Cooling Water (ERCW) Motor Control Centers (MCCs). The breaker from DCN 23082 is a MCCB for the 480V reactor vent boards that feed the ice condenser air handling units. During and after the onsite inspection at SQN, NRC Staff repeatedly referred to the staff position established in TIA 2014-01 to support the violation, and as a basis for not treating the issue as an Unresolved Item.

In an October 6, 2015, phone call with NRC Region II, SQN was granted an extension for providing a response to the NRC from the original 30-day response period to November 13, 2015. At that time, SQN's intent was to deny the NCV.

On October 1, 2015, the NRC rescinded TIA 2014-01 with the intent of developing a Regulatory Issue Summary (RIS) to communicate the NRC Staff's positions on service life. Even though TIA 2014-01 had been rescinded, the Nuclear Energy Institute (NEI) submitted a letter to the NRC on October 20, 2015 with subject, "Industry Position on the Role of Vendor Recommendations for Service Life of Safety-Related Components," that documented the industry's concerns with regulatory positions taken in TIA 2014-01. One of these concerns was that TIA 2014-01 appeared to change existing NRC positions on preventative maintenance requirements for safety-related equipment in mild environments. The letter submitted by NEI directly addressed the issue raised by the SQN NCV.

TVA discussed the SQN NCV with NRC Region II on November 3, 2015. The following individuals participated: TVA Vice President - Licensing, Senior Manager - Fleet Regulatory Operations, NRC - Director of Reactor Safety, Region II and NRC - Director of Reactor Projects, Region II. During the discussions, NRC indicated that, even if TVA did not deny the SQN NCV, NRC Region II would reexamine the SQN NCV after the agency completed its review of the October 20, 2015 NEI letter and issued the RIS. Following the discussions, a decision was made by TVA to delay submitting a formal letter contesting the SQN NCV at that time and work with the industry on review of the RIS to address the SQN NCV. TVA likewise decided not to contest or submit a clarification letter that had been drafted regarding the SQN NCV because TVA believed that the SQN NCV would be resolved through the RIS and that Region II would then reexamine the SQN NCV. TVA actively engaged with industry and the NRC on service life issues and development of the service life RIS.

Between December 2015 to present, the NRC issued preliminary drafts of the service life RIS, and held public meetings to solicit industry and public feedback. TVA actively participated in the industry efforts regarding the development of the RIS in order to support resolution of this generic industry issue regarding regulatory requirements for electrical equipment in mild environments. The most recent NRC public meeting was conducted on September 14, 2017, during which NEI (including a representative from TVA) presented the industry's position. On October 17, 2017, the CRGR issued a letter to the NRC Executive Director for Operations and recommended that the draft RIS not be issued.

The timeline table below provides a synopsis of the above discussion chronologically.

Service Life Interaction Timeline	
Date	**Activity**
May 7, 2015	NRC issues TIA 2014-01
September 14, 2015	SQN receives NCV for safety-related Class 1E components in mild environments
October 1, 2015	NRC rescinds TIA 2014-01
October 6, 2015	Teleconference between NRC Region II and TVA regarding response to SQN NCV
October 20, 2015	NEI submits letter to NRC regarding concerns with rescinded TIA 2014-01
November 3, 2015	Discussions between NRC Region II and TVA (addressed SQN NCV)
December 9, 2015	NRC issues preliminary draft of RIS 2016-XX on Service life
January 20, 2016	NRC Public Meeting on preliminary draft RIS 2016-XX
May 10, 2016	NRC issues revised draft RIS 2016-XX for public comment
June 1, 2016	Initial meeting of NEI Service life Focus Group to develop comments on draft RIS
June 23, 2016	NEI Service life Focus Group meeting to finalize comments
July 18, 2016	NEI submits draft RIS comment letter to NRC
July 21, 2016	NEI RITF meeting
October 19-20, 2016	NEI RITF and RIWG meetings
October 31, 2016	NRC issues draft RIS comment resolutions
November 18, 2016	NEI Service life Focus Group to review NRC comment resolutions
November 30, 2016	RUG II meeting
February 2, 2017	NEI RIWG meeting
September 14, 2017	NRC CRGR Public Meeting Regarding Draft RIS
October 17, 2017	CRGR recommends the RIS not be issued

Based on the above, TVA is submitting the backfit claim with respect to the SQN NCV with an explanation of why the NCV should not have been issued.

2. SQN Licensing and Design Basis

2.1 SQN Updated Final Safety Analysis Report (UFSAR)

The licensing basis for SQN is delineated in the SQN UFSAR, which references NRC Regulatory Guide (RG) 1.89, and Institute of Electrical and Electronics Engineers (IEEE) standards IEEE 323-1971 and IEEE 323-1974. The UFSAR identifies equipment and systems subject to 10 CFR 50.49 and the SQN implementing procedures for environmental qualification. For Engineered Safety Features (ESF) equipment located in a mild environment, the SQN UFSAR Section 3.11.2.3, Environmental Design of ESF Components, states:

> ESF Systems and RPS components have established industrial ratings equal to or in excess of the required environmental capabilities. These environmental capabilities are demonstrated by testing or by appropriate analyses. The 10 CFR 50.49 scope equipment is addressed under the harsh environment qualification program (see Section 3.11.2.4).
>
> Qualification of other equipment important to safety is addressed by design/purchase specifications, functional requirements, and associated environmental conditions. Periodic maintenance and surveillance adequately demonstrates qualification of equipment in mild environments.

As described in this enclosure, the SQN UFSAR prescribes qualifying ESF equipment located in a mild environment that is consistent with industry-accepted practices, and NRC requirements and guidance. The SQN UFSAR, Section 8.1.5 states:

> Although the design of the electric power system for the Sequoyah Nuclear Plant preceded the publication of several of the standards and regulatory guides referenced below, it is TVA's belief that the design meets the intent of those standards and guides.

The standards and guides listed in the SQN UFSAR include IEEE 279-1971, IEEE 308-1971, and IEEE 323-1971, which SQN applied to the MCCBs described in the SQN NCV. Equipment qualification requirements from each of these IEEE standards are provided below.

IEEE 279-1971, Criteria for Protection Systems for Nuclear Power Generating Stations, Section 4.4, discusses equipment qualification as follows: “Type test data or reasonable engineering extrapolation based on test data shall be available to verify that protection system equipment shall meet, on a continuing basis, the performance requirements determined to be necessary for achieving the system requirements.”

IEEE 308-1971, Criteria for Class 1E Electric Systems for Nuclear Power Generating Stations, Section 4.7, discusses equipment qualification as follows: “Each type of Class 1E electric equipment shall be qualified by analysis, successful use under similar conditions, or by actual test to demonstrate its ability to perform its function under normal and design basis events.”

IEEE 323-1971, Qualifying Class 1 Electric Equipment for Nuclear Power Generating Stations, Sections 3, 5.1, and 5.2, discusses equipment qualification as follows: "Each type of equipment is qualified for its application. Type test data shall contain equipment specifications, identification of specific features to be demonstrated by the type test, test program outline (typically includes service conditions and design basis event conditions to be simulated, static and dynamic performance characteristics, etc.), and test results. Service conditions are defined as environmental, power and signal conditions expected as a result of normal operating requirements, expected extremes in operating requirements and postulated conditions appropriate for the design basis events of the station."

2.2 Regulatory Requirements and Applicable Guidance

The NRC's requirements with respect to environmental qualification are set forth in 10 CFR 50.49. 10 CFR 50.49, Environmental Qualification of Electric Equipment Important to Safety for Nuclear Power Plants, establishes qualification requirements for equipment ***only*** in non-mild environments. Of note, 10 CFR 50.49(c)(3) states:

> Requirements for environmental qualification of electric equipment important to safety located in a mild environment are not included within the scope of this section. A mild environment is an environment that would at no time be significantly more severe than the environment that would occur during normal plant operation, including anticipated operational occurrences.

In addition, the NRC guidance in NUREG-0800, Standard Review Plan, Revision 3, March 2007, Section 3.11, Environmental Qualification of Mechanical and Electrical Equipment, states for mild environments:

> For electrical and mechanical equipment located in a mild environment, acceptable environmental design can be demonstrated by the "design/purchase" specifications for the equipment. The specifications must contain a description of the functional requirements for a specific environmental zone during normal environmental conditions and anticipated operational occurrences.
>
> A well-supported maintenance/surveillance program, in conjunction with a good preventive maintenance program, is sufficient to ensure that equipment that meets the design/purchase specifications is qualified for the designed life. Compliance with 10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," and associated guidance in Regulatory Guide 1.160 are sufficient to provide reasonable assurance that environmental considerations established during design are reviewed every refueling outage and maintained on a continuing basis to ensure that the qualified design life has not been reduced by thermal, radiation, and/or cyclic degradation resulting from unanticipated operational occurrences or service conditions. Modification to the replacement program and/or replacement of equipment should be based on the review of maintenance/surveillance data.

Design specifications will be discussed in Section 3.3.

Generic Letter 82-09.(GL 82-09), Question and Answer (Q&A) 4, states:

> Q. Can periodic surveillance, testing and maintenance programs adequately demonstrate qualification of electrical equipment in mild environments?
>
> A. For existing equipment located in mild environments, equipment environmental qualification can be adequately demonstrated and maintained by the use of the following three programs:
>
> 1. A periodic maintenance, inspection, and/or replacement program based on sound engineering practice and recommendations of the equipment manufacturer which is updated as required by the results of an equipment surveillance program;
>
> 2. A periodic testing program to verify operability of safety related equipment within its performance specification requirements (system level testing of the type typically required by the plant technical specifications may be used); and
>
> 3. An equipment surveillance program which includes periodic inspections, analysis of equipment and component failures, and a review of the results of preventive maintenance and periodic testing programs.
>
> For replacement and new equipment, the licensee must also establish and document the environmental design basis for the equipment locations. The purchase specifications must reflect those design basis environmental conditions that are bounding for all applicable equipment locations.

The Statements of Consideration for the 10 CFR 50.49 rule (48 FR 1983) further note that, "[t]he final rule does not cover the electric equipment located in a mild environment. The Commission has concluded that the general quality and surveillance requirements applicable to electric equipment as a result of other Commission regulations, including 10 CFR Part 50, Appendix B (see for example, Regulatory Guide 1.33, 'Quality Assurance Requirements (Operation), Revision 3) are sufficient to ensure adequate performance of electrical equipment important to safety located in mild environments. Since it has been concluded that no further environmental qualification requirements are needed for such equipment provided they fully satisfy all other applicable regulations, the Commission has determined that no additional requirements are necessary with respect to electric equipment located in mild environments in order for licensees to satisfy, with respect to such equipment, existing license conditions or technical specifications calling for qualification of safety-related electric equipment in accordance with DOR Guidelines or NUREG-0588."

Regulatory Guide (RG) 1.89, Environmental Qualification of Certain Electric Equipment Important to Safety for Nuclear Power Plants, Revision 1, Section A, provides additional regulatory guidance and positions regarding environmental qualification. RG 1.89 specifically states that (emphasis added):

> Section 50.49 does not include requirements for seismic and dynamic qualification, protection of electric equipment against other natural phenomena and external events, and ***equipment located in a mild environment***.

RG 1.89 endorses IEEE 323-1974, IEEE Standard for Qualifying Class 1E Equipment for Nuclear Power Generating Stations, when applied in conjunction with RG 1.89.

The NRC's regulations and guidance, 10 CFR 50.49, NUREG-0800, RG 1.89, and other standards and guidance, specifically provide that equipment in mild environments are beyond the scope of the equipment qualification requirements of 10 CFR 50.49. Although earlier versions of IEEE 323 (1971 and 1974) do not specifically define mild and harsh environments, IEEE 323-1983 (and later versions) include definitions of those terms.

The forward to IEEE 323-1983 states that:

> Electrical equipment qualified in accordance with either IEEE Standard 323-1974 or IEEE Standard 323-1983 will meet the requirements of IEEE Standard 627-1980 which provides the basic principles for design qualification for all safety systems equipment for use in Nuclear Power Generating Stations. This revision to IEEE Standard 323-1974 was made to clarify its requirements and imposes no additional requirements for qualifying Class 1E equipment.
>
> This standard defines requirements that are adequate to qualify Class 1E equipment located in all areas of the Nuclear Power Generating Station including harsh and mild environment [sic] areas. At this time, it appears that seismic is the only design basis event with potential for common cause failure in otherwise mild environments; however, other environmental service conditions may also be contributors.

Specific guidance in IEEE 323-1983, Section 4 states the following:

> It is the primary role of qualification to ensure that Class 1E equipment can perform its safety function(s) with no failure mechanism that could lead to common cause failures under postulated service conditions.
>
> It is degradation with time (aging), followed by exposure to the environmental extremes of temperature, pressure, humidity, radiation, vibration, or chemical spray resulting from design basis events which presents a potential for causing common cause failures of Class 1E equipment. For this reason it is necessary to establish a qualified life for equipment with significant aging mechanisms unless aging is adequately addressed by periodic surveillance/maintenance. The qualified life determination shall be accomplished using the qualification methods described in the remainder of this standard. These methods include type testing, operating experience, analysis, or any combination thereof.
>
> For equipment located in mild environments and which has no significant aging mechanisms, a qualified life is not required. This equipment shall be selected for application to the specific service conditions based on sound engineering practices and manufacturer's recommendations.

3. TVA Position - Establishing Performance Characteristics

3.1 NRC Statement

The NRC Inspection Report stated:

> The licensee did not establish the Class 1E static and dynamic performance characteristics under the full range of service conditions as specified by IEEE 323-1971 and required by IEEE 279 and IEEE 308.

3.2 TVA Position

There is no requirement under NRC regulations or the SQN licensing basis to establish Class1E static and dynamic performance characteristics for the MCCBs referenced in the SQN NCV. The terms static and dynamic are not specifically defined in the IEEE standards. Static and dynamic performance characteristics are included in Section 5.2 of IEEE 323-1971 as elements of type test data that are used to demonstrate the qualification of equipment. IEEE 279-1971 and 308-1971 require equipment qualification to be performed in order to demonstrate its ability to perform its function under normal and design basis events. SQN meets these requirements as follows:

TVA procedure NPG-SPP-09.2, Equipment Environmental Qualification (EQ) Program, applies to electrical equipment located in a harsh environment in accordance with 10 CFR 50.49. The definitions of mild environment in this procedure are consistent with 10 CFR 50.49, NUREG-0800, RG 1.89, and IEEE 323. Specifically, electrical equipment important to safety that is located in a mild environment is not included in the 10 CFR 50.49(b) scope of equipment. A mild environment is defined in 10 CFR 50.49 as an environment that would at no time be significantly more severe than the environment that would occur during normal plant operation, including anticipated operational occurrences. For non-harsh (mild) environmental conditions, TVA understands the static and dynamic performance characteristics under the full range of service conditions per IEEE requirements is: functionality in a mild environment resulting from normal service conditions and extremes (abnormal) in service conditions where an earthquake is the only design basis event of consequence. The normal and abnormal service conditions were specified in the SQN procurement documents for the replacement MCCBs subject to the SQN NCV, and the equipment was certified to meet these specified requirements. As documented in procurement documents detailed in Section 3.3 below, SQN established characteristics and specifications that were appropriate for Class 1E electrical equipment located in a mild service environment.

The above approach is also consistent with NUREG-0800, Standard Review Plan, Revision 3, March 2007, Section 3.11, which states, in part; “For electrical and mechanical equipment located in a mild environment, acceptable environmental design can be demonstrated by the ‘design/purchase’ specifications for the equipment. The specifications must contain a description of the functional requirements for a specific environmental zone during normal environmental conditions and anticipated operational occurrences.”

As described in Section 3.3 below, the SQN procurement process is consistent with the NUREG-0800 guidance.

3.3 SQN Procurement Process

As a part of the design change process, SQN procurement specifications are provided to ensure applicable material and equipment standards, attributes, qualifications, etc., are met. For breakers such as those included in DCNs 23085 and 23082, TVA procedure NPG-SPP-09.2, Equipment Environmental Qualification (EQ) Program, and the applicable standards as described below were required to be met during the procurement process.

Standard SS-E18.10.01, Environmental Qualification Requirements for Safety Related Electrical Equipment, requires that electrical equipment designated Class 1E to be qualified to the requirements of IEEE Standards 323-1974. Qualification of Class 1E equipment in mild environments is specifically addressed in Section 2 of SS-E18.10.01, including the effects of aging on equipment. Standard CEB-SS-5.10, Seismic Qualification of Electrical, Mechanical, and I&C Devices, provides the seismic qualification requirements for the breakers. In the certificate of conformance, the vendor certified that the breakers were qualified in accordance with these standards.

In accordance with SS-E18.10.01, a datasheet provided the specific environmental requirements for the replacement breakers using the specification code “T3056-Nonharsh EQ Cond”. DS-M18.2.18, Standard Procurement Notes, defines T3056 as shown below.

T3056 - The following nonharsh environmental conditions are applicable:

Avg. Temperature	85°F (Normal)
Max. Temperature	120°F (will occur less than 1% of plant life)
Avg. Relative Humidity	55%
Max. Relative Humidity	90%
Normal Pressure	14.4 PSIA (ATM)
Tornado Pressure	11.25 PSIA for 5 seconds
Total 40-year Integrated dose	3.5 X 10 square rads
Integrated accident dose	Less than 1 X 10 to the 4th power rads

The Nuclear Logistics, Incorporated (NLI) Certificate of Conformance, CC-02110650-02 states: “Nuclear Logistics, Inc. certifies that the items identified above are qualified in accordance IEEE 323-1974, IEEE 344-1975, and TVA standard specification SS-E18.10.01 and CEB-SS-5.10, as documented in NLI Report QR-0219980-1, Rev. 2.”

Based on the above, SQN was in compliance with the SQN licensing basis. SQN had and has appropriate Class 1E static and dynamic performance characteristics for the replacement breakers under the full range of service conditions as specified by IEEE 323-1974 and required by IEEE 279 and IEEE 308. With respect to static and dynamic performance characteristics, the NRC interpretation described in IR 2015-007, represents a new staff position.

The NUREG-0800 aspect for maintenance/surveillance and preventive maintenance are discussed in section 4 below.

4. TVA Position - Establishing Qualification Criteria

4.1 NRC Statement

The NRC Inspection Report stated:

> The inspectors reviewed procurement packages for DCNs 23085 and 23082 that purchased Class 1E molded case circuit breakers (MCCBs) to assess the qualification criteria. The inspectors identified that the licensee did not establish qualification criteria for design life.

4.2 TVA Position

There is no requirement under NRC regulations or the SQN licensing basis to establish qualification criteria for design life for the Class 1E MCCBs cited in the NRC Inspection Report. As defined in IEEE 323-1983, design life is the time during which satisfactory performance can be expected for a specific set of service conditions. The IEEE provides that design life may be specified in several ways, including calendar time, operating time, number of operating cycles or some other performance interval, as appropriate. For equipment located in a mild environment, SQN utilizes a periodic surveillance/maintenance program to ensure that the equipment remains qualified. This SQN position is consistent with SQN's original licensing basis, long established NRC rules and guidance, and with industry practice for equipment located in mild environments. The MCCBs described in the NCV are installed in a mild environment, and a specific qualified life is not required. Preventive maintenance and testing frequencies for manual cycling and exercising of mechanical trip devices, detailed inspections and cleaning, electrical trip testing, and periodic replacement of MCCBs all consider age-related failure mechanisms. As documented in Section 4.3 below, the preventive maintenance and testing program established by SQN for the replacement breakers ensures these MCCBs remain qualified and will continue to operate under design basis conditions.

The above approach is consistent with the NRC guidance in GL 82-09, NUREG-0800, RG 1.89, and IEEE 323-1983. Specifically, NUREG-0800, Standard Review Plan, Revision 3, March 2007, Section 3.11, states that a well-supported maintenance/surveillance program in conjunction with a good preventive maintenance program is sufficient to ensure that equipment in a mild environment that meets the design/purchase specifications is qualified for the designed life. The NRC guidance does not provide for the establishment of qualification criteria for design life of such equipment.

4.3 SQN Preventive Maintenance and Testing

SQN has programs in place to comply with its licensing basis for MCCBs such as those MCCBs included in DCNs 23085 and 23082. For such MCCBs, the SQN breaker program requires periodic testing and preventive maintenance. Through preventive maintenance and breaker replacement, the SQN breaker program ensures the equipment will continue to operate under its design basis conditions. When SQN receives information (e.g., operating experience) from equipment vendors or industry OE that could challenge operability/functionality of such equipment, SQN evaluates the information to ensure continued operability/functionality of installed equipment, or else takes actions to replace the suspect equipment.

The replacement MCCBs described in the NRC NCV are maintained and tested as follows:

The reactor vent board breakers (from DCN 23082) are included in the Technical Requirements Manual (TRM) breaker population. A 10% population of each breaker catalog type is tested every fuel cycle (18 months) in accordance with surveillance instructions SI-258.2, Testing of Molded Case and Lower Voltage Containment Penetration Circuit Breakers, and SI-275.2, Testing of Non-Class 1E Load Circuit Breakers Fed From Class 1E Busses. If there are any failures during testing, an additional 10% population is tested until there are no failures or until the total catalog type population has been tested. There have been no testing failures that would have affected the design function of the reactor vent board breakers. In addition to testing, preventive maintenance on these breakers is performed every six years in accordance with surveillance instruction SI-266.2.3, 72-Month Inspection of Molded Case Circuit Breakers. [NOTE: TRM requirements as defined at the time the SQN NCV was issued]

The ERCW breakers (from DCN 23085) are included in the non-TRM breaker population. A 5% population of each breaker catalog type is tested every fuel cycle (18 months) in accordance with Technical Instruction 0-TI-SBR-000-001.0, Breaker Testing and Maintenance Program, Step 6.6.1. If there are any failures during testing, an additional 5% population is tested until there are no failures or until the total catalog type population has been tested. There have been no testing failures that would have affected the safety function of the ERCW breakers. In addition to testing, preventive maintenance on these breakers is performed when other MCC board preventive maintenance is performed. Preventive maintenance on the breakers is performed in accordance with Preventive Maintenance Work Instructions 057531001 for ERCW MCC 1A-A and 057532001 for ERCW MCC 2A-A. These preventive maintenance activities are scheduled to be performed every 15 years, but in practice are performed more frequently (every 5 years) as a result of other scheduled maintenance, such as swapping out the 6.9 kV supply breaker. When SQN tests a MCCB in the Breaker Testing and Maintenance Program, a new, pre-tested MCCB is installed and the existing MCCB is removed and tested for program requirements. Replacing the MCCB being sampled with a new MCCB minimizes equipment and system outage time. SQN has replaced close to half of the MCCBs that are included in the Breaker Testing and Maintenance Program. Replacements are ongoing at a rate of approximately 70 per year.

The Independent Qualified Review Maintenance Template for SQN MCCs and MCCBs addresses age-related failure mechanisms. Age-related failure mechanisms are considered and addressed in the preventive maintenance and testing frequencies for manual cycling and exercising of mechanical trip devices, detailed inspections and cleaning, electrical trip testing, and replacement of MCCBs. The Equipment Reliability Strategy incorporates age-related failure mechanisms and serves as the technical basis for the Preventative Maintenance (PM) program. Changes to the PM program are evaluated by engineering with respect to the strategy, which is developed and maintained in accordance with NPG-SPP-09.18.3, Equipment Reliability Program Component Strategy Development and Implementation Process.

As discussed above, the SQN preventive maintenance process and periodic testing/surveillance program for the replacement breakers comply with the licensing basis for SQN and regulatory guidance documents and regulations and are adequate to ensure the equipment will continue to operate under its design basis conditions. No additional qualified life specifications are required under SQN's licensing basis. Aging mechanisms are appropriately considered in the development of the preventive maintenance and periodic testing.

5. Change in NRC Staff Position Requires a Backfit Analysis

Section 50.109(a)(1) of Title 10 of the Code of Federal Regulations provides the following definition of backfitting:

> Backfitting is defined as the modification of or addition to systems, structures, components, or design of a facility; or the design approval or manufacturing license for a facility; or the procedures or organization required to design, construct or operate a facility; any of which may result from a new or amended provision in the Commission's regulations or the imposition of a regulatory staff position interpreting the Commission's regulations that is either new or different from a previously applicable staff position after:
>
> * * * *
>
> (iii) The date of issuance of the operating license for the facility for facilities having operating licenses;

NRR Office Instruction, LIC-202, “Procedures for Managing Plant-Specific Backfits and 50.54(f) Information Requests,” Revision 2 (LIC-202), Section 1 sets forth the Commission policy regarding backfits. In pertinent part:

> The Backfit Rule, Title 10 of the Code of Federal Regulations (10 CFR) 50.109, governs the requirements for backfitting of nuclear power plants. It requires that the Nuclear Regulatory Commission (NRC) justify each backfit with either a backfit analysis or a documented evaluation. The term backfit is used in these procedures to denote modification of or addition to (1) systems, structures, components, or design of a facility; (2) the design approval or manufacturing license for a facility; (3) the procedures or organization required to design, construct, or operate a facility if the modification or addition results from a new or amended provision in the Commission rules or from the imposition of a regulatory staff position interpreting the Commission rules that is either new or different from a previously applicable staff position. To be considered a backfit, these new or different positions must be taken after certain dates specified in 50.109(a)(1)(i-vii). Furthermore, a backfit is plant-specific when it involves the imposition of a position that is unique to a particular plant.

NUREG 1409, Backfitting Guidelines, Section 2.1.1, provides that “[t]he scope of the rule includes all design and hardware aspects of systems, structures, and components as well as supporting activities reflected by procedures and organization.”

LIC-202, Appendix B, Section I provides that a staff position constitutes a backfit if it meets the following criteria:

- A staff position may be a proposed backfit if it would cause a licensee to change the design, construction, or operation of a facility from that consistent with already applicable regulatory staff positions as described below.
- A staff position, as described above, is a proposed backfit if it is first made known to the licensee after certain important design, construction, or operation milestones involving NRC approvals of various kinds have been reached. A new or revised staff position will be considered a backfit:

* * * *

After the date of issuance of the operating license (for the facility or facilities having operating licenses); or

* * * *

LIC-202, Appendix B, Section I further provides a definition of "applicable regulatory staff positions," as follows:

> Applicable Regulatory Staff Positions: The term "applicable regulatory staff positions" is used in these procedures to denote those requirements, commitments, or positions specifically imposed on a licensee or committed to by a licensee when the plant-specific backfit is identified:
>
> • Legal requirements, as in regulations, orders, and plant licenses (including amendments, conditions, technical specifications). Some regulations have update features built into them; for example, 10 CFR 50.55a, "Codes of Standards." Such update features are applicable as described in the regulation.
>
> * * * *
>
> • NRC staff positions that explicitly interpret the more general regulations and that are approved and stated in such documents as standard review plans (SRPs), branch technical positions, regulatory guides, generic letters, and bulletins, and to which a licensee has previously committed or upon which a licensee has previously relied. Positions contained in these documents are not considered applicable regulatory staff positions with respect to a particular licensee unless the staff has, in a previous licensing or enforcement action, identified to the licensee part or all of the position.

The SQN NCV represents a change in NRC Staff position regarding Class 1E equipment qualification in mild environments. The Commission's regulations, SRP, and GL 82-09 are clear that there is no requirement to establish environmental qualification criteria for design such as the MCCBs in the SQN NCV because they are in mild environments, as 10 CFR 50.49(c)(3) states:

Requirements for environmental qualification of electric equipment important to safety located in a mild environment are not included within the scope of this section. A mild environment is an environment that would at no time be significantly more severe than the environment that would occur during normal plant operation, including anticipated operational occurrences.

GL 82-09, Q&A 4 states:

Q. Can periodic surveillance, testing and maintenance programs adequately demonstrate qualification of electrical equipment in mild environments?

A. For existing equipment located in mild environments, equipment environmental qualification can be adequately demonstrated and maintained by the use of the following three programs:

1. A periodic maintenance, inspection, and/or replacement program based on sound engineering practice and recommendations of the equipment manufacturer which is updated as required by the results of an equipment surveillance program;

2. A periodic testing program to verify operability of safety related equipment within its performance specification requirements (system level testing of the type typically required by the plant technical specifications may be used); and

3. An equipment surveillance program which includes periodic inspections, analysis of equipment and component failures, and a review of the results of preventive maintenance and periodic testing programs.

For replacement and new equipment, the licensee must also establish and document the environmental design basis for the equipment locations. The purchase specifications must reflect those design basis environmental conditions that are bounding for all applicable equipment locations.

The Statements of Consideration for the 10 CFR 50.49 rule (48 FR 1983) further note that, “[t]he final rule does not cover the electric equipment located in a mild environment. The Commission has concluded that the general quality and surveillance requirements applicable to electric equipment as a result of other Commission regulations, including 10 CFR Part 50, Appendix B (see for example, Regulatory Guide 1.33, ‘Quality Assurance Requirements (Operation), Revision 3) are sufficient to ensure adequate performance of electrical equipment important to safety located in mild environments. Since it has been concluded that no further environmental qualification requirements are needed for such equipment provided they fully satisfy all other applicable regulations, the Commission has determined that no additional requirements are necessary with respect to electric equipment located in mild environments in order for licensees to satisfy, with respect to such equipment, existing license conditions or technical specifications calling for qualification of safety-related electric equipment in accordance with DOR Guidelines or NUREG-0588.”

The NRC Inspection Report states the SQN NCV in part as:

> … the licensee failed to establish measures for the selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the safety-related functions of the structures, systems and components. Specifically, the licensee failed to establish measures for the selection and review for suitability of static and dynamic performance characteristics used in the design and qualification of Class 1E electrical equipment.

In addition, the NRC Inspection Report noted that the NRC Staff believes that qualification criteria for design life were included in the characteristics that should be part of qualification of Class 1E MCCBs in a mild environment:

> The inspectors reviewed procurement packages for DCNs 23085 and 23082 that purchased Class 1E molded case circuit breakers (MCCBs) to assess the qualification criteria. The inspectors identified that the licensee did not establish qualification criteria for design life.

The qualification requirements set forth in the NRC Inspection Report is a new staff position that would constitute a modification or addition to the procedures required to operate SQN by requiring SQN to establish qualification criteria for design life and dynamic and static performance characteristics of Class 1E MCCBs in mild environments, contrary to 10 CFR 50.49, GL 82-09, and the SQN licensing basis, as discussed in Sections 3 and 4, *supra*.

Because TIA 2014-01 has been rescinded, no other plant, to TVA's knowledge, is subject to a similar requirement, so the backfit is plant-specific.

The NRC characterization of the regulatory basis related to service life in the SQN NCV appears to be based on an oversimplification of the many inputs that are required to develop effective maintenance programs and did not fully consider how TVA complies with the NRC's existing regulations, GL 82-09, the SRP, and the SQN licensing basis. As discussed above, SQN is in compliance with applicable regulations and its licensing basis contrary to the SQN NCV. As a result, the SQN NCV, as a new NRC Staff position, represents a significant expansion of regulatory requirements with respect to design basis information, maintenance programs, and mild environment equipment qualification, in excess of existing regulatory requirements for quality assurance programs. The SQN NCV effectively changes existing NRC rules by establishing an equipment qualification requirement for all SSCs located in mild environments beyond those specifically defined in 10 CFR 50.49, "Environmental qualification of electric equipment important to safety for nuclear power plants," contrary to the NRC Staff's position in GL82-09.

The regulatory precedent and licensing basis ramifications of this new NRC Staff position would be significant to SQN, the rest of the TVA nuclear fleet, and industry if the NCV is not withdrawn.

Under such a position, extensive evaluations and third-party testing would be required for components that are not subject to those evaluations or testing under current NRC regulations and the SQN licensing basis. For reference, the current Class 1E population with a qualified life per 10 CFR 50.49 (i.e., harsh environment) at SQN is approximately 3,500 components. Based on this potentially new licensing basis requirement, an additional approximately 22,730 Class 1E components in mild environments at SQN may require evaluation. The estimated cost to accomplish this extraordinary effort is approximately $205 million. This estimate only considers the top component categories (e.g., breakers, chillers, circuit boards, motors, switches, etc.), and includes developing a new program establishing end of service life replacement of non-EQ 1E equipment, cost of equipment evaluation, equipment replacement (material and labor), work order and PM processing, additional testing/evaluation to establish service life documentation for some equipment, and accounting for some obsolete equipment. The additional impact to TVA could include similar evaluations for the rest of the TVA fleet and possibly other utilities.

Because this change in NRC Staff position constitutes a backfit, the NRC Staff must satisfy the backfitting requirements of 10 CFR 50.109 before imposing the new NRC Staff position. The NRC staff must first perform a systematic and documented backfit analysis. The NRC staff must then determine that the backfit would constitute "a substantial increase in the overall protection of the public health and safety or the common defense and security" and that "the direct and indirect costs of implementation for that facility are justified in view of this increased protection." Only after making these findings can the NRC require TVA to implement the new NRC Staff position in the SQN NCV.

6. <u>Conclusion</u>

TVA performed qualification of the safety-related Class 1E replacement breakers included in DCNs 23085 and 23082 in accordance with the SQN design and licensing basis and NRC requirements. Appropriate measures were established for the selection and review for suitability of static and dynamic performance characteristics used in the design and qualification of the replacement breakers as delineated in the design/purchase specifications.

The SQN preventive maintenance process and periodic testing/surveillance program for these replacement breakers are adequate to ensure the equipment will continue to operate under their design basis conditions. Aging mechanisms were appropriately considered in the development of the preventive maintenance and periodic testing. Because the replacement equipment is located in a mild environment, no additional qualified life specifications were required.

TVA has actively followed the industry service life issue, including participation at the NRC September 14, 2017, Public Meeting, and industry forums involving service life issues to ensure due diligence in properly resolving the SQN NCV. The SQN service life issue as characterized in NCV 05000327, 328/2015007-05 documented in Inspection Report 05000327, 05000328/2015007 is not consistent with NRC regulatory requirements and associated guidance. Therefore, TVA respectfully requests that the SQN NCV be withdrawn and, if it is not, TVA requests that the NRC treat this as a new NRC Staff position, which requires that the NRC Staff conduct a backfitting analysis pursuant to 10 CFR 50.109(a)(3).

References

1. 10 CFR 50.49, Environmental Qualification of Electric Equipment Important to Safety for Nuclear Power Plants

2. 10 CFR 50.109, Backfitting

3. NUREG-0800, Standard Review Plan, Section 3.11, Environmental Qualification of Mechanical and Electrical Equipment

4. NUREG-1409, Backfitting Guidelines

5. Regulatory Guide (RG) 1.89, Environmental Qualification of Certain Electric Equipment Important to Safety for Nuclear Power Plants, Revision 1

6. Institute of Electrical and Electronics Engineers (IEEE) 323-1971, Qualifying Class 1 Electric Equipment for Nuclear Power Generating Stations

7. IEEE 279-1971, Criteria for Protection Systems for Nuclear Power Generating Stations

8. IEEE 308-1971, Criteria for Class 1E Electric Systems for Nuclear Power Generating Stations

9. IEEE 323-1974 and -1983, Qualifying Class 1E Equipment for Nuclear Power Generating Stations

10. Task Interface Agreement (TIA) 2014-01, "Final Task Interface Agreement - Regulatory Position on Design Life of Safety-Related Structures, Systems, and Components Related to Unresolved Items at Donald C. Cook Nuclear Power Plant, Monticello Nuclear Generating Plant, and Palisades Nuclear Plant."

11. LIC-202, Procedures for Managing Plant-Specific Backfits and 50.54(f) Information Requests