

**NON-CONCURRENCE PROCESS    NCP-2016-013**  
**COVER PAGE**

The U.S. Nuclear Regulatory Commission (NRC) strives to establish and maintain an environment that encourages all employees to promptly raise concerns and differing views without fear of reprisal and to promote methods for raising concerns that will enhance a strong safety culture and support the agency's mission.

Employees are expected to discuss their views and concerns with their immediate supervisors on a regular, ongoing basis. If informal discussions do not resolve concerns, employees have various mechanisms for expressing and having their concerns and differing views heard and considered by management.

Management Directive, MD 10.158, "NRC Non-Concurrence Process," describes the Non-Concurrence Process (NCP), <http://nrcweb.nrc.gov:8600/policy/directives/catalog/md10.158.pdf>.

The NCP allows employees to document their differing views and concerns early in the decision-making process, have them responded to (if requested), and attach them to proposed documents moving through the management approval chain to support the decision-making process.

NRC Form 757, "Non-Concurrence Process" is used to document the process.

Section A of the form includes the personal opinions, views, and concerns of a non-concurring NRC employee.

Section B of the form includes the personal opinions and views of the non-concurring employee's immediate supervisor.

Section C of the form includes the agency's evaluation of the concerns and the agency's final position and outcome.

NOTE: Content in Sections A and B reflects personal opinions and views and does not represent official factual representation of the issues, nor official rationale for the agency decision. Section C includes the agency's official position on the facts, issues, and rationale for the final decision.

At the end of the process, the non-concurring employee(s):

- Concurred
- Continued to non-concur
- Agreed with some of the changes to the subject document, but continued to non-concur
- Requested that the process be discontinued
- The non-concurring employee(s) requested that the record be non-public.
- The non-concurring employee(s) requested that the record be public.
- This record is non-public and for official use only.
- This record has been reviewed and approved for public dissemination.



NCP PM 7/21/2016  
NCP-2016-013

NON-CONCURRENCE PROCESS

SECTION A - TO BE COMPLETED BY NON-CONCURRING EMPLOYEE

TITLE OF SUBJECT DOCUMENT  
Wolf Creek Generating Station - NRC Focused Baseline Inspection Report 05000482/2016008; Preliminary

ADAMS ACCESSION NO.

DOCUMENT SIGNER  
Troy W. Pruett

SIGNER TELEPHONE NO.  
(817) 200-1248

TITLE  
Director, Division of Reactor Projects

ORGANIZATION  
Region IV

NAME OF NON-CONCURRING EMPLOYEE(S)  
David P. Loveless, Gregory Pick

TELEPHONE NUMBER  
(817) 200-1161

TITLE  
Senior Reactor Analyst

ORGANIZATION  
Region IV, Division of Reactor Safety

DOCUMENT AUTHOR  DOCUMENT CONTRIBUTOR  DOCUMENT REVIEWER  ON CONCURRENCE

NON-CONCURRING EMPLOYEE'S SUPERVISOR  
Heather Gepford

TITLE  
Chief, Plant Support Branch 2

ORGANIZATION  
Region IV, Division of Reactor Safety

I WOULD LIKE MY NON-CONCURRENCE CONSIDERED AND WOULD LIKE A WRITTEN EVALUATION IN SECTION B AND C.  
 I WOULD LIKE MY NON-CONCURRENCE CONSIDERED, BUT A WRITTEN EVALUATION IN SECTIONS B AND C IS NOT NECESSARY.

WHEN THE PROCESS IS COMPLETE, I WOULD LIKE THE NCP FORM:  PUBLIC  NON-PUBLIC

REASONS FOR THE NON-CONCURRENCE, POTENTIAL IMPACT ON MISSION, AND THE PROPOSED ALTERNATIVES  
(use continuation pages or attach Word document)  
I disagree with the preliminary characterization of the finding related to the emergency diesel generator exciter system diodes documented in draft NRC Inspection Report 05000482/2016008. The document is currently undergoing review and formal concurrence, and I was a contributor tasked with providing significant document content and am included in the document concurrence block.

The reasons for my non-concurrence are provided in the attached Word file.

Additional Non-concurring Employee: Gregory Pick Telephone Number: (817) 200-1270  
Title: Senior Reactor Inspector Organization: Region IV, Division of Reactor Safety, Engineering Branch 2

Signature: Gregory A. Pick Date: 7/18/2016

SIGNATURE: David P. Loveless DATE: 7/14/16

**Section A - Reasons for Non-Concurrence and Proposed Alternatives**  
**NCP Tracking Number #####**

Impact on Reliability of the Process:

As documented in the subject inspection report, the Significance and Enforcement Review Panel determined that the preliminary significance determination of a failure of Wolf Creek's emergency diesel generator was White based on a sensitivity study (Risk Evaluation 2) performed as part of the detailed risk evaluation (DRE) that is attached to the report. This was as opposed to the results of the DRE (Risk Evaluation 1) which indicated that the significance was Green. The difference in the two conclusions is the use of Assumption 17 in the DRE. In Risk Evaluation 1, Assumption 17 states that although the station blackout emergency diesel generators were not available from February 5, 2014 to April 25, 2014, the analyst would assume that the station blackout diesels would fail at their nominal rate as opposed to failing at all times. The sensitivity study, Risk Evaluation 2, assumed that the station blackout diesels would fail at all times during this period.

Inspection Manual Chapter (IMC) 0308, Attachment 3, "Significance Determination Process Technical Basis Document," Section 0308.06, "The Independence of Inspection Findings," states that multiple findings that are separate and independent will be treated independently in the significance determination process. Attachment 3 also states that the Action Matrix performs the "summing" of risk impacts to inform the degree of regulatory response, and will produce an appropriate regulatory response. In addition, Attachment 3 states that NRC management can decide to deviate from the Action Matrix in accordance with IMC 0305, "Operating Reactor Assessment Program," if they determine the response is not appropriate.

The finding associated with the station blackout emergency diesel generators was documented and characterized in NRC Inspection Report 05000482/2015002. Because this is a separate finding, assuming that these diesels were unavailable would not be treating the two findings (which were separate and independent and had different proximate causes) independently as required by IMC 0308. Therefore, the analysts determined that the complete failure of the station blackout emergency diesel generators should not be included in the assessment of the failure of Emergency Diesel Generator B, Risk Evaluation 1. Additionally, because we previously characterized the risk of the licensee's failure to properly install the station blackout emergency diesel generators, we are double counting the risk to include that failure in the analysis of the Emergency Diesel Generator B failure.

To understand the importance of this, we must discuss a little bit about risk calculation. The basis for not including the blackout diesels as failed (as IMC 0308 dictates) is that fundamentally, there is no such thing as past risk. Either the core melted yesterday or it didn't. Risk is only directly applicable to future operations. Therefore, to effectively use risk to analyze a past event, we must have a rigorous set of rules delineating how we will assess the risk. For example, in evaluating a degraded condition, the significance determination process requires that we model the condition (or failed component) as always in a failed state, but every other component may fail at its nominal failure probability.

In the case of the subject inspection report, because we are relying on the analysis of two separate findings combined, we are not in compliance with those fundamental rules that are required to make sense of past risk. A person could argue, "We know that the station blackout emergency diesel generators were not available, so we should not credit them as being available." While that is one way to analyze past risk, it is not in accordance with the program rules. Once we decide to vary the rules, licensees could then (equally valid) argue that "We

**Section A - Reasons for Non-Concurrence and Proposed Alternatives**  
**NCP Tracking Number #####**

knew that Emergency Diesel Generator A was working during that time, so you should give us credit for that diesel always being available.” This is just one example of how the calculation of past risk could be manipulated to make the result unpredictable and not repeatable.

We believe that the way the agency wants to characterize the finding in the subject inspection report is one way to evaluate past risk, but it is not in keeping with the rules established in the significance determination process. Flexibility in implementing the rules in calculating past risk provides a result that is not valid within the context of the development of the program and it is inappropriate to compare such a result to any threshold set up by the program (i.e.: Green/White threshold). This violates the principle of good regulation, reliability. If we don't follow explicit rules when conducting risk assessments, these assessments are not repeatable or objective. If management determines that the significance result of the two findings, as summed in the Action Matrix, does not appropriately characterize the performance of Wolf Creek, they can deviate from the Action Matrix, as permitted by IMC 0305. The subject inspection report appears to apply such a deviation to the significance determination process as opposed to the Action Matrix.

Impact on Efficiency in the Process:

It should be clear that providing a preliminary White finding and going through the public process required to issue escalated enforcement, if the issue is actually Green, is not an efficient use of agency resources. The argument of the Significance and Enforcement Review Panel, although not documented in the subject report, was:

The SBO EDGs were not successfully installed until the licensee rewired the current transformer in the Class 1E 4kV alternate feeder breaker cubicles and confirmed the ability of the SBO EDG to connect to the electrical bus. During the period of October 1, 2013, to April 25, 2014, Wolf Creek should not have reduced the baseline risk of the facility by revising the plant-specific PRA model. All performance deficiencies occurring during this seven month time-window should exclude the SBO EDG from the baseline risk of the facility. Essentially, the SBO EDG was, “never installed” during this period and therefore should, “never be credited” in the baseline risk of the facility.

The panel's goal was clearly to not reward the licensee when they had improperly implemented a design modification. Unfortunately, this implies that the licensee's inadequate performance should not be treated as a separate finding, but as if the licensee's modification had never been installed. Were that true, and the station blackout diesels had not been installed, operators would not have potentially relied upon them during the month and a half of interest following a postulated accident. Under such an assumption, the analysts would have modeled the licensee's control room abandonment in a different way, giving more credit to other sources of power. In that case, the calculated risk of the failure of Emergency Diesel Generator B would have been lower than that provided in the sensitivity, Risk Evaluation 2.

In our opinion, we need to evaluate the risk of the finding using the rules of the significance determination process. However, if we were to change those rules to determine that the previous finding should be addressed as if the station blackout diesels were never installed, we would get a different numerical result than that of the sensitivity, Risk Evaluation 2, that the Significance and Enforcement Review Panel used for the preliminary determination. Risk Evaluation 2 assumed that the station blackout diesels were installed, but would not work, as opposed to the “never installed” referred to above. The use of Risk Evaluation 2 is known to be wrong and will require the agency and licensee to go through the escalated enforcement

**Section A - Reasons for Non-Concurrence and Proposed Alternatives**  
**NCP Tracking Number #####**

process, only to determine that the licensee would have different response scenarios if the diesels had not been installed. We believe this difference alone would result in the finding being Green.

**Impact on Clarity of the Process**

The draft of the subject inspection report provided to us for concurrence did not clearly state the methods used in coming to a significance determination of White. Our comments were incorporated into the comments from Plant Support Branch 2 and are provided as markups in the attached draft inspection report. We continue to work informally with Division of Reactor Projects, Project Branch B to ensure that the report clearly documents the exact process used by the Significance and Enforcement Review Panel. Resolution of these comments is a part of this non-concurrence and is required to ensure that the agency's position is readily understood and easily applied.

**NON-CONCURRENCE PROCESS**

NCP-16-013

**SECTION B - TO BE COMPLETED BY NON-CONCURRING EMPLOYEE'S SUPERVISOR**

TITLE OF SUBJECT DOCUMENT

Wolf Creek Generating Station - NRC Focused Baseline Inspection Report 05000482/2016008; Preliminary

ADAMS ACCESSION NO.

NAME

Heather J. Gepford

TITLE

Branch Chief, Plant Support Branch 2

TELEPHONE NUMBER

(817) 200-1156

ORGANIZATION

Region IV, Division of Reactor Safety

COMMENTS FOR THE NCP REVIEWER TO CONSIDER (use continuation pages or attach Word document)

I fully support the use of the non-concurrence process by Mr. Loveless and Mr. Pick for this issue. The results of the detailed risk evaluation (DRE), including the sensitivity analysis in question, generated significant levels of discussion throughout the region and headquarters during the development of the DRE, prior to the significance and enforcement review panel (SERP) discussion/decision, and during the review/concurrence on the document to which the DRE is an attachment.

The guidance provided in Manual Chapter 0308, Attachment 3, "Significance Determination Process Technical Basis," seems to be clear that the risk evaluation for independent performance deficiencies associated with degraded conditions that overlap in time are to be considered independently by the significance determination process. The underlying basis is that the Action Matrix will perform the "summing" of risk impacts from multiple discrete inputs and thus to do so in the risk evaluation would in a sense be double-counting.

However, the Wolf Creek case addressed here has a unique aspect with respect to determining the risk associated with the diesel generator performance deficiency. The previously evaluated performance deficiency related to the station blackout (SBO) diesels identified an issue in which the diesels would not have operated, a condition that could be thought of as "the SBO diesels were never installed." However, Wolf Creek included credit for the SBO diesel generators in their baseline risk model from the time of installation rather than from the time at which the SBO diesels were properly installed (wired correctly) and operable. This raises the question of whether the guidance, or "rules" if you will, in MC 0308, Attachment 3, are adequate to characterize the risk significance of any performance deficiencies that overlap in time with the SBO diesel performance deficiency. However, even if they are not, it is unclear how not following the agency process as defined is appropriate.

Because there is continued disagreement related to whether the NRC's established process and procedures were followed in applying the significance determination process to this issue by the SERP, the non-concurrence process is an appropriate means to reach resolution.

SIGNATURE



DATE

7/26/16

<b>NRC FORM 757</b> NRC MD 10.158 (02-2016)	<b>U. S. NUCLEAR REGULATORY COMMISSION</b>	NCP TRACKING NUMBER
<b>NON-CONCURRENCE PROCESS</b>		
<b>SECTION B - TO BE COMPLETED BY NON-CONCURRING EMPLOYEE'S SUPERVISOR</b>		
TITLE OF SUBJECT DOCUMENT See Section A	ADAMS ACCESSION NO.	
NAME Gregory E. Werner		
TITLE Branch Chief/ Engineering Branch 2	TELEPHONE NUMBER 817-200-1137	
ORGANIZATION RIV/DRS		
COMMENTS FOR THE NCP REVIEWER TO CONSIDER (use continuation pages or attach Word document)  <p>I was not involved in the review and/or approval of the DRE or of the inspection report. Although I am Greg Pick's supervisor of record, he was assigned to perform work under Heather Gepford and I did not supervise his work associated with this effort. I did encourage him to use the non-concurrence process after he discussed his concerns and lack of making progress on how the risk information was characterized in the inspection report. I recommended that he discuss his concerns and to provide recommended ways to resolve with both Jeff Clark and Tony Vegel, as well as with the Regional Administrator, Kriss Kennedy.</p>		
SIGNATURE <i>Gregory E. Werner</i>	DATE July 21, 2016	

**NON-CONCURRENCE PROCESS**

NCP-2016-013

**SECTION C - TO BE COMPLETED BY NCP COORDINATOR**

TITLE OF SUBJECT DOCUMENT

Wolf Creek Generating Station Inspection Report 05000482/2016008

ADAMS ACCESSION NO.

NAME

Nicholas H. Taylor

TITLE

Chief, Projects Branch B

TELEPHONE NUMBER

(817) 200-1141

ORGANIZATION

Division of Reactor Projects, Region IV

AGREED UPON SUMMARY OF ISSUES (use continuation pages or attach Word document)

Please see attached document entitled Summary of Issues.

EVALUATION OF NON-CONCURRENCE AND RATIONALE FOR DECISION (use continuation pages or attach Word document)

Please see attached document entitled Evaluation of Non-Concurrence and Rationale for Decision.

TYPED NAME OF NCP COORDINATOR

Nicholas H. Taylor

TITLE

Chief, Projects Branch B

ORGANIZATION

Division of Reactor Projects, Region IV

SIGNATURE--NCP COORDINATOR



DATE

8/4/16

TYPED NAME OF NCP APPROVER

Troy W. Pruett

TITLE

Division Director

ORGANIZATION

Division of Reactor Projects, Region IV

SIGNATURE--NCP APPROVER



DATE

8/5/16



## Summary of Issues

1. The SERP decision to include the results of sensitivity study related to the unavailability of the station blackout diesel generators in the preliminary risk significance determination is contrary to the guidance provided in Inspection Manual Chapter 0308, Attachment 3, Section 0308.06, "The Independence of Inspection Findings." This is because the issue affecting the availability of the station blackout diesel generators was previously documented as a finding in NRC Inspection Report 05000482/2015002 and characterized under the significance determination process.
2. If the SERP believed that a Green finding for each of these two performance deficiencies did not appropriately characterize the performance at Wolf Creek, there is an option in the program that is in accordance with the program guidance. While Manual Chapter 0308 states that the summing of the significance of multiple inspection findings is performed in the Action Matrix (and not in the significance determination process), Manual Chapter 0305 permits deviation from the Action Matrix to appropriately characterize the licensee performance.
3. Varying from the guidance in IMC 0308 could result in risk assessments that are not repeatable or objective. This is primarily because arguments supporting varying from the guidance can then be raised regarding other analysis rules that can make the result change in either direction.
  - a. If we argue (as the SERP does), "We know that the station blackout emergency diesel generators were not available, so we should not credit them as being available."
  - b. An equally valid argument is, "We knew that Emergency Diesel Generator A was working during that time, so you should give us credit for that diesel always being available."
4. The decision to consider the SBO diesels to "never have been installed" would require a re-evaluation of the risk of the performance deficiency, as the licensee would not have attempted to rely on a component that was not installed. The evaluation performed assumed that the station blackout diesels were installed, but would not have worked. This reanalysis would be inefficient and would likely yield a "green" result.
5. The draft inspection report reviewed by the author did not clearly state the methods used in coming to a significance determination of White.

## Evaluation of Non-Concurrence and Rationale for Decision

The evaluation of the risk significance of the subject performance deficiency has been the subject of near-continuous discussion since the draft inspection finding was proposed on December 17, 2015. The resident inspectors and DRP staff worked closely with the SRAs to provide supporting details, perform plant walkdowns, participate in table-top discussions with the licensee and validate key assumptions. Early on in the discussion, the questions that make up the substance of this non-concurrence were posed by the SRAs. The dialogue on this issue has been substantial and professional. On June 23, 2016, the Significance and Enforcement Review Panel met to discuss this proposed violation, including a substantial discussion of the subject of this non-concurrence. The voting members of the SERP voted unanimously to proceed with the Preliminary White finding based in full view of the pending non-concurrence.

The staff worked closely with the author of the non-concurrence (and the cosigner) to understand their concerns with the position taken by the Significance and Enforcement Review Panel. The staff accepted substantial input from the non-concurring employee to better inform the language in the inspection report. Nonetheless, the non-concurring employee provided a number of specific concerns with the proposed outcome. The staff's response to the five specific issues is summarized below:

1. **Non-Concurrence Concern:** The SERP decision to include the results of sensitivity study related to the unavailability of the station blackout diesel generators in the preliminary risk significance determination is contrary to the guidance provided in Inspection Manual Chapter 0308, Attachment 3, Section 0308.06, "The Independence of Inspection Findings." This is because the issue affecting the availability of the station blackout diesel generators was previously documented as a finding in NRC Inspection Report 05000482/2015002 and characterized under the significance determination process.

**Evaluation:** The staff agrees with the author of the non-concurrence that Manual Chapter 0308 does not allow combining the significance of multiple violations to achieve a more severe risk result. Neither the inspection staff nor the SERP has proposed to take such an action.

The staff has determined that the licensee inappropriately reduced the baseline risk of the facility by crediting the station blackout (SBO) diesel generators in October 2013 before they had been fully installed or operationally tested. In doing so, the licensee underestimated the baseline risk at the facility for all processes that relied on their risk model until the SBO diesels were fully installed and operationally tested in April 2014.

This practice by the licensee is contrary to long-standing NRC policy on use of probabilistic risk assessment (PRA) methods in regulatory activities. Specifically, the NRC's 1995 Policy Statement, "Use of Probabilistic Risk Assessment (PRA) Methods in Nuclear Regulatory Activities," specifically stipulates:

"Therefore, the Commission adopts the following policy statement regarding the expanded NRC use of PRA: ....(3) PRA evaluations in support of regulatory decisions should be as realistic as practicable..."

Additionally, NRC Inspection Manual Chapter 0308 describes that the CDF and LERF risk significance metrics were adopted from Regulatory Guide 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the

Licensing Basis.” Revision 2 of Regulatory Guide 1.174 contains the following specific language, which is consistent with the 1995 policy statement:

“The analyses should reflect the actual design, construction, and operational practices of the plant.”

“The technical adequacy of a PRA analysis used to support an application is measured in terms of its appropriateness with respect to scope, level of detail, technical adequacy, and plant representation.”

“One overriding requirement is that the PRA should realistically reflect the actual design, construction, operational practices, and operational experience of the plant and its owner.”

“A PRA used in risk-informed regulation should be performed correctly, in a manner that is consistent with accepted practices and commensurate with the scope and level of detail required as discussed above... and appropriately represents the plant...”

“The PRA results used to support an application are derived from a PRA model that represents the as-built and as-operated plant to the extent needed to support the application.”

The action by the licensee to reduce the baseline risk of the facility by inappropriately crediting the risk mitigation capability of the SBO diesel generators was contrary to NRC policy. Furthermore, NRC policy requires that risk assessments reflect the actual design and operation of the plant. As such, the staff determined, and the SERP unanimously agreed, that providing risk mitigation credit for the SBO diesels before they were fully installed and operationally tested is not in alignment with NRC policy. For this reason, the SERP determined that the risk significance of the finding appropriately considered the SBO diesels to be unavailable for risk mitigation prior to April 2014.

2. **Non-Concurrence Concern:** If the SERP believed that a Green finding for each of these two performance deficiencies did not appropriately characterize the performance at Wolf Creek, there is an option in the program that is in accordance with the program guidance. While Manual Chapter 0308 states that the summing of the significance of multiple inspection findings is performed in the Action Matrix (and not in the significance determination process), Manual Chapter 0305 permits deviation from the Action Matrix to appropriately characterize the licensee performance.

**Evaluation:** The staff agrees with the author of the non-concurrence that Manual Chapter 0305 permits deviation from the Action Matrix as an option to consider summing the significance of multiple inspection findings, versus using the Action Matrix to arrive at the appropriate assessment outcome. However, the staff has not proposed to sum the significance of multiple inspection findings, and as such no deviation from the Action Matrix is necessary.

As described above, the staff has determined that the decision by the licensee to reduce the baseline risk in their risk model of the facility without fully installing the SBO diesels was improper and resulted in an underestimation of the baseline risk of all plant configurations and inspection findings during the period of time before the SBO diesels was properly installed in April 2014. The decision by the SERP reflects the reality that the proper analysis

for the proposed inspection finding, and any other inspection findings overlapping the period of time before the SBO diesels were properly installed in April 2014, should reflect the actual configuration of the facility, as described in Regulatory Guide 1.174.

3. Non-Concurrence Concern: Varying from the guidance in IMC 0308 could result in risk assessments that are not repeatable or objective. This is primarily because arguments supporting varying from the guidance can then be raised regarding other analysis rules that can make the result change in either direction.
  - a. If we argue (as the SERP does), "We know that the station blackout emergency diesel generators were not available, so we should not credit them as being available."
  - b. An equally valid argument is, "We knew that Emergency Diesel Generator A was working during that time, so you should give us credit for that diesel always being available."

Evaluation: The staff has determined that the outcome of the SERP is in alignment with the guidance of Manual Chapter 0308, and risk assessments will continue to be repeatable and objective. The staff does recognize the unique nature of this situation and the potential for similar future situations to be misinterpreted. The staff will consider suggesting additional guidance for Manual Chapter 0308 to provide guidance for situations where licensees inappropriately reduce the baseline risk for their facilities without testing the credited equipment to ensure it is capable of performing its risk mitigation function.

The staff views this as a fundamentally different situation than the degradation of an installed structure, system or component (SSC) whose reliability has been appropriately characterized in the risk model, such as the opposite train standby diesel generator. Regulatory Guide 1.174 directly addresses the expectations for licensees to take credit for risk mitigating equipment, including definition of implementation and monitoring programs for the reliability of the equipment. In part, Regulatory Guide 1.174 prescribes that:

"The licensee should propose monitoring program(s) that include a means to adequately track the performance of equipment that, when degraded, can affect the conclusions of the licensee's engineering evaluation and integrated decision making that support the change to the [licensing basis]....This may include monitoring associated with nonsafety-related SSCs if the analysis determines that those SSCs are risk significant. The program should be structured such that (1) SSCs are monitored commensurate with their safety importance (i.e., monitoring for SSCs categorized as having low safety significance may be less rigorous than that for SSCs of high safety significance), (2) feedback of information and corrective actions is accomplished in a timely manner, and (3) degradation in SSC performance is detected and corrected before plant safety can be compromised. ...In particular, monitoring that is performed in conformance with 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants" (the Maintenance Rule) can be used when the monitoring performed under the Maintenance Rule is sufficient for the SSCs affected by the risk-informed application....For example, establishing a monitoring program with a performance-based feedback approach may combine some of the following activities:

- monitoring performance characteristics under test conditions that are similar to those expected during a design-basis event,

- monitoring and trending performance characteristics to verify aspects of the underlying analyses, research, or bases for a requirement (e.g., measuring battery voltage and specific gravity, inservice inspection of piping),
- component quality controls, including developing pre- and post-component installation tests”

In light of this guidance in Regulatory Guide 1.174, the staff understands that fully installed SSCs whose reliability is monitored through programs such as the maintenance rule can be appropriately credited in a licensee’s probabilistic risk analysis. For example, the opposite train standby diesel generator is fully installed and is monitored through programs such as the maintenance rule and can be appropriately credited in a licensee’s probabilistic risk analysis. By the same token, the staff understands that NRC guidance does not allow providing risk mitigation credit for equipment that has never been fully installed, operationally tested, and whose reliability is unmonitored by the licensee. Specifically, NRC guidance does not allow providing risk mitigation credit for the SBO diesels when they had never been adequately fully installed, operationally tested, or monitored by the licensee.

4. Non-Concurrence Concern: The decision to consider the SBO diesels to “never have been installed” would require a re-evaluation of the risk of the performance deficiency, as the licensee would not have attempted to rely on a component that was not installed. The evaluation performed assumed that the station blackout diesels were installed, but would not have worked. This reanalysis would be inefficient and would likely yield a “green” result.

Evaluation: The licensee did, in fact, consider the SBO diesels to have been fully installed. The staff’s position is that this was inappropriate, and that the baseline risk of the facility should never have been reduced for the reasons stated above. Nonetheless, the licensee considered the SBO diesels to have been installed and available, and specifically communicated to the inspectors their intention to rely on the SBO diesels to mitigate the SBO event described in this inspection finding. It is likely that if the events described in the finding would have occurred, the licensee would have attempted, unsuccessfully, to recover power using the SBO diesels. The detailed risk analysis included with the inspection report properly characterizes the risk impact of this chain of events.

5. Non-Concurrence Concern: The draft inspection report reviewed by the author did not clearly state the methods used in coming to a significance determination of White.

Evaluation: NRC Inspection Manual Chapter 0612, “Power Reactor Inspection Reports,” dated May 6, 2016, paragraph 06.03.b.4 contains guidance on the level of detail to include in the four part write-up of an inspection finding with a preliminary risk significance determination. Specifically, the guidance directs the report author to include the risk characterization or other basis as determined by the SERP, and “State that the significance determination is preliminary or pending an initial significance characterization.”

The draft inspection report reviewed by the non-concurrence author was an early draft of the final document. The draft did, however, contain the full detailed risk evaluation provided by the author of the non-concurrence (and the cosigner) with all of the relevant detail as an attachment. The staff determined that the subject inspection report is fully aligned with the expectations in Manual Chapter 0612.