REQUEST FOR ADDITIONAL INFORMATION FOR WESTINGHOUSE ELECTRIC COMPANY TOPICAL REPORT WCAP-17794-P, REVISION 0, AND WCAP-17794-NP, REVISION 0, "10X10 SVEA FUEL CRITICAL POWER EXPERIMENTS AND NEW CPR CORRELATIONS: D5 FOR SVEA-96 OPTIMA3" (TAC NO. MF3368)

By letter dated November 22, 2013 (ADAMS Accession No. ML13333A274), Westinghouse Electric Company (Westinghouse) submitted a request for review and approval of WCAP-17794-P, Revision 0, and WCAP-17794-NP, Revision 0, "10x10 SVEA Fuel Critical Power Experiments and New CPR Correlation: D5 for SVEA-96 Optima3" (Proprietary/Non-Proprietary) (WCAP-17794-P/NP, Revision 0) topical report (TR), which describes the D5 critical power correlation.

Between June 3 and June 4, 2015 the US Nuclear Regulatory Commission (NRC) staff conducted an audit for understanding to increase comprehension of the TR. From the initial reading of the TR, the NRC staff developed a list of 208 comprehension questions. During the audit, many of these comprehension questions were answered, resulting in a list of 28 NRC staff reviewer concerns. Since that audit, the NRC staff has worked toward the initial draft safety evaluation (SE) and has identified 35 requests for additional information (RAIs).

To facilitate better communication, each of the requests for additional information (RAIs) has been categorized by the NRC staff. The three categories considered are:

- Level of Concern (i.e., “How concerned is the NRC staff with the statements in the submittal which generated this RAI?”)
- Level of Impact (i.e., “What is the perceived level of impact of RAI to the approval of the submittal?”
- Level of Effort (i.e., “What is the perceived level of work which will be needed to satisfy this RAI?”)

Each RAI is assigned a level in each category (1-5) and the scores are combined to generate the following significance table. Further details on each category are provided at the end of this document. The individual levels of each RAI are provided with that RAI below.

Table 1: RAI Summary for WCAP-17794-P/NP, Revision 0:

Level of Significance	Number of RAIs
High	1
Medium	10
Low	24

Table 2: RAI Categorization Summary for WCAP-17794-P/NP, Revision 0

RAI	Concern	Impact	Effort	Significance
1	3	5	4	Low
2	3	5	3	Low
3	3	3	3	Low
4	2	3	2	Medium
5	3	3	3	Low
6	2	2	2	High
7	3	3	3	Low
8	3	3	3	Low
9	3	3	3	Low
10	3	5	3	Low
11	3	5	4	Low
12	2	3	3	Medium
13	3	3	4	Low
14	3	3	3	Low
15	3	3	3	Low
16	3	3	3	Low
17	3	1	3	Medium
18	3	3	2	Low
19	4	2	3	Medium
20	3	3	3	Low
21	3	3	3	Low
22	3	2	3	Medium
23	1	3	3	Medium
24	3	5	4	Low
25	3	3	3	Low
26	2	3	3	Medium
27	2	3	3	Medium
28	2	3	3	Medium
29	2	3	2	Medium
30	3	3	4	Low
31	3	3	3	Low
32	3	3	3	Low
33	3	3	3	Low
34	3	3	4	Low
35	5	5	5	Low

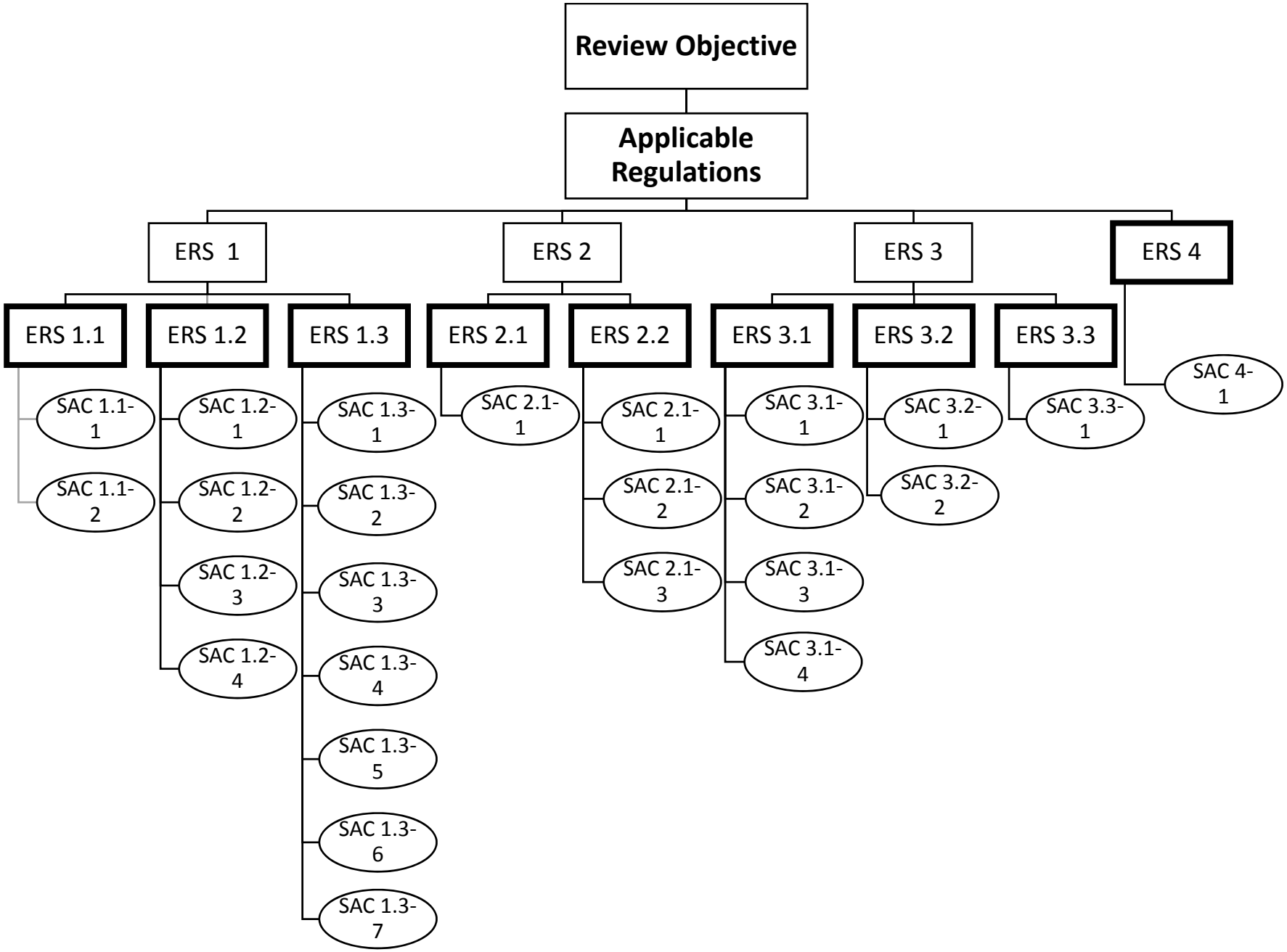
The following framework was developed for the review of correlations used to predict critical boiling transition, such as D5. The NRC staff reviewer considerers the Essential Review Standards (ERS) to be necessary for demonstrating the applicable regulations have been satisfied. Each ERS is typically satisfied using the Specific Acceptance Criteria (SAC) given. Each RAI has been focused on a particular SAC.

REVIEW OBJECTIVE	*The critical heat flux or critical power correlation must be acceptable for use in reactor safety licensing calculations (i.e., the correlation must be able to be trusted).*
APPLICABLE REGULATIONS	**GDC 10, GDC 12, 10 CFR 52.47(b)(1), 10 CFR 52.80(a)**
ERS 1	**The experimental data must be accurate.**
ERS 1.1	The test facility must be demonstrated to be credible.
SAC 1.1-1	*The test facility should be described in appropriate detail and references should be provided. At a minimum, this should include a loop description, test section description, heat rod description, and description of the instrumentation. A reference to any applicable documents which describe the test facility should be provided in including a reference to the Quality Assurance program applied at the facility.*
SAC 1.1-2	*The results of the test facility should be demonstrated to be accurate compared to an external source (i.e., benchmarked).*
ERS 1.2	The local conditions in the reactor fuel bundle must be reproduced in the test bundle.
SAC 1.2-1	*The ranges of the experimental parameters (e.g., pressure, powers, flow rates) should be representative of the values expected in a reactor during normal operation and anticipated operational occurences (AOOs). This includes radial power peaking in boiling water reactor (BWR) tests.*
SAC 1.2-2	*The test bundle should result in the same flow field as the reactor fuel bundle. At a minimum this includes ensuring the same grid spacer design and axial location, rod diameter, heated length, and inlet flow distribution. Typically, the grid spacers and heated rods used in the test bundle should be within the manufacturing tolerances of the grid spacers and fuel rods used in the fuel bundle in the reactor.* *Any differences between the test bundle and the reactor bundle should be addressed. This includes components which are not in the reactor bundle but are needed for testing purposes.*
SAC 1.2-3	*The local powers in the test bundle should reflect the expected local powers in the reactor assembly/bundle. This is accomplished through testing of representative axial and radial power shapes.*

SAC 1.2-4	*Any part-length or unheated rods in a reactor bundle should be accurately reflected in the test bundle. Additionally, any part-length rods should have the same heated length in both the reactor and test bundles.*
ERS 1.3	The experiment must provide accurate measurements of all important parameters including critical heat flux (CHF) or critical power (CP).
SAC 1.3-1	*The test procedures should be described in appropriate detail and references should be provided. This should be provided for both steady state and transients tests. A reference to any applicable documents which describe the testing procedures should be provided.* *The method for determining departure from nucleate boiling (DNB) or dryout should ensure an accurate capture of the CHF or CP. This includes the stability conditions and the procedure for approaching a critical boiling transition and includes both steady state and transient tests as the tests often have different testing procedures and may have different critical boiling transition criteria.*
SAC 1.3-2	*Ideally, the experimental input conditions would be randomized during each run, but this is impractical due to testing considerations. Therefore, some method of ensuring that the experimental data taken is independent of any bias due to similar input conditions should be demonstrated. Further, input conditions which can be randomized should be.*
SAC 1.3-3	*The measurement uncertainties of all measured parameters and other variables important to the CHF or CP correlation should be reasonably low.*
SAC 1.3-4	*Important experimental parameters (e.g., pressure, flow, temperature, and power) should have diverse and redundant means of experimentally measuring their values.*
SAC 1.3-5	*The instrumentation should be repeatedly calibrated and checked to ensure accurate measurements.*

SAC 1.3-6	*The experimental uncertainty in obtaining the CHF or CP should be quantified. Such an uncertainty includes not only the measurement uncertainties, but also any uncertainties in the procedure for determining DNB or dryout occurred and in the testing procedures used. This uncertainty should be provided for both steady state and transient tests as the tests often have different testing procedures and may have different critical boiling transition. .* *At a minimum, the experimental uncertainty should be quantified by taking repeat test points and determining the CHF or CP which causes critical boiling transition. This uncertainty should be small when compared with the uncertainty in the critical boiling transition correlation.*
SAC 1.3-7	*Heat losses from the test bundle should be well characterized.*
ERS 2	**The correlation must be generated in a logical fashion.**
ERS 2.1	The mathematical form of the correlation must be appropriate.
SAC 2.1-1	*The reasoning behind the mathematical form of the correlation should be discussed.*
ERS 2.2	The process for determining the correlation's coefficients must be appropriate.
SAC 2.2-1	*The training data (i.e., the data used to generate the coefficients of the correlation) should be identified.*
SAC 2.2-2	*The method for calculating the correlation's coefficients should be described.*
SAC 2.2-3	*The method for calculating the R or K factors and the additive constants (for both full length and part length rods) should be described. Further, a description should be provided of how such these values are calculated if dryout is not measured on the rod under consideration* ***(CP only)****.*
ERS 3	**The correlation must have sufficient validation as demonstrated by appropriate quantification of its uncertainty.**
ERS 3.1	The validation data must be appropriately distributed throughout the computational domain.
SAC 3.1-1	*The validation data (i.e., the data used to quantify the correlation's error) should be identified and result in an appropriate calculation of the correlation's predictive capability. This data should be separate from the training data.*

SAC 3.1-2	*The computational domain of the correlation should be mathematically defined.*
SAC 3.1-3	*Describe how it is ensured that the correlation will not be used outside of the computational domain.*
SAC 3.1-4	*Sparse regions (i.e., regions of low data density) in the computational domain should be identified and justified to be appropriate.*
ERS 3.2	Any inconsistencies in the validation error must be accounted for appropriately.
SAC 3.2-1	*The validation data should be investigated to determine if it contains any sub-groups which are obviously not from the same population (i.e., not poolable).*
SAC 3.2-2	*The computational domain should be investigated to determine if contains any obvious non-conservative subregions as the correlation's predictive behavior should be independent of its location in the computational domain.*
ERS 3.3	The correlation statistics must be conservatively calculated.
SAC 3.3-1	*The calculation of the correlation statistics should reflect any changes deemed necessary to generate a conservative correlation statistic.*
SAC 3.3-2	*The correlation should be implemented in a manner which will ensure that its predictive capability is not decreased from that capability expressed in the uncertainty calculated above.*
ERS 4	**The correlation must be correctly implemented.**
SAC 4-1	*The correlation should be implemented in a manner which will ensure that its predictive capability is not decreased from that capability expressed in the uncertainty calculated above.*


Review Objective
Applicable Regulations
ERS 1
ERS 2
ERS 3
ERS 4
ERS 1.1
ERS 1.2
ERS 1.3
ERS 2.1
ERS 2.2
ERS 3.1
ERS 3.2
ERS 3.3
SAC 1.1-1
SAC 1.1-2
SAC 1.2-1
SAC 1.2-2
SAC 1.2-3
SAC 1.2-4
SAC 1.3-1
SAC 1.3-2
SAC 1.3-3
SAC 1.3-4
SAC 1.3-5
SAC 1.3-6
SAC 1.3-7
SAC 2.1-1
SAC 2.1-1
SAC 2.1-2
SAC 2.1-3
SAC 3.1-1
SAC 3.1-2
SAC 3.1-3
SAC 3.1-4
SAC 3.2-1
SAC 3.2-2
SAC 3.3-1
SAC 4-1

1. RAI-SNPB-01

Reference for Test Facility *Provide appropriate references which describe the test facility in greater detail and the Quality Assurance program applied.*					
Essential Review Standards	ERS 1.1	**Specific Acceptance Criteria**	SAC 1.1-1	**Section in SE**	**Error! Reference source not found.**
Level of Concern	3	**Level of Impact**	5	**Level of Effort**	4
Overall Significance	Low				

2. RAI-SNPB-02

Validation for Test Facility *Demonstrate that the FRIGG test facility has been validated by comparison to experimental results from an outside source (i.e., benchmarks).*					
Essential Review Standards	ERS 1.1	**Specific Acceptance Criteria**	SAC 1.1-2	**Section in SE**	
Level of Concern	3	**Level of Impact**	5	**Level of Effort**	3
Overall Significance	Low				

3. RAI-SNPB-03

Plots for Range of Parameters *Provide plots similar to Figures 4-5 through 4-8 which demonstrate that the typical application range is bounded by the experimental data. This should include plots of Pressure vs. R-factor and Inlet Subcooling vs. R-factor. These plots should identify the domain of the Typical Application as well as the domain of the limits of the D5 correlation (i.e., the computational domain).*					
Essential Review Standards	ERS 1.2	**Specific Acceptance Criteria**	SAC 1.2-1	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Low				

4. RAI-SNPB-04

Difference in dimensions between fuel and test bundle *Provide a more detailed description about the difference between the fuel bundle and the test bundle, as quantified in Figure 3-4 of the TR. Discuss the cause of these differences, how these differences were addressed, and any impact of these differences.*					
Essential Review Standards	ERS 1.2	**Specific Acceptance Criteria**	SAC 1.2-2	**Section in SE**	
Level of Concern	2	**Level of Impact**	3	**Level of Effort**	2
Overall Significance	Medium				

5. RAI-SNPB-05

Difference in grid spacer types between fuel and test bundle *Provide justification that the differences between the grid spacers used in the test bundle and those used in the reactor fuel bundle will not impact the flow field. Further, provide details as to why different spacers were used. Specifically justify the use of SP1-XA spacer.*					
Essential Review Standards	ERS 1.2	**Specific Acceptance Criteria**	SAC 1.2-2	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Low				

6. RAI-SNPB-06

Axial Shift in Grid Spacers

Provide a figure which contains the initial and final position of the axial grid spacers. Provide any results of state points which were repeated on the cosine power shape vs the date the data point was taken. Provide a plot of the error vs. date and time of data point for the cosine power tests. Provide further details on if the axial shift could have impacted the thermocouples measuring dryout (e.g., could the grid spacer move to cover the thermocouple and thus prevent dryout detection). In general, provide further analysis demonstrating that the axial shift does still results in a similar flow field for the tested bundle compared with the reactor fuel bundle.

Essential Review Standards	ERS 1.2	**Specific Acceptance Criteria**	SAC 1.2-2	**Section in SE**	
Level of Concern	2	**Level of Impact**	2	**Level of Effort**	2
Overall Significance	High				

7. RAI-SNPB-07

Radial Power Distributions					
*The NRC staff recognizes it is not realistically possible to test every possible combination of local powers, however, some methodology should be used to ensure that those combinations tested bound the possible local power distributions during transients and AOOs. Provide details of the methodology used by Westinghouse and justification that the combination of **radial** powers tested bound the possible radial power distribution expected during normal operations and AOOs.*					
Essential Review Standards	ERS 1.2	**Specific Acceptance Criteria**	SAC 1.2-3	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Low				

8. RAI-SNPB-08

Axial Power Distributions					
*The NRC staff recognizes it is not realistically possible to test every possible combination of local powers, however, some methodology should be used to ensure that those combinations tested bound the possible local power distributions during transients and AOOs. Provide details of the methodology used by Westinghouse and justification that the combination of **axial** powers tested bound the possible axial power distribution expected during normal operations and AOOs.*					
Essential Review Standards	ERS 1.2	**Specific Acceptance Criteria**	SAC 1.2-3	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Low				

9. RAI-SNPB-09

Part Length Fuel Rods *Provide a further discussion on the **[*** ***]***					
Essential Review Standards	ERS 1.2	**Specific Acceptance Criteria**	SAC 1.2-4	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Low				

10. RAI-SNPB-10

More Detailed Test Procedure *Provide a more detailed description of the test procedure. Specifically identify how each state point was reached including which system parameters were targeted first, second, etc…. Include the criteria for the stability of each type of data point (i.e., how much deviation in the system parameters would be needed to throw out a data point) as well as the criteria for determining when dryout has been observed. Provide these procedural details for both steady state and transient tests.*					
Essential Review Standards	ERS 1.3	**Specific Acceptance Criteria**	SAC 1.3-1	**Section in SE**	
Level of Concern	3	**Level of Impact**	5	**Level of Effort**	3
Overall Significance	Low				

11. RAI-SNPB-11

Reference for Test Procedure *Provide appropriate references for the test procedure.*					
Essential Review Standards	ERS 1.3	**Specific Acceptance Criteria**	SAC 1.3-1	**Section in SE**	
Level of Concern	3	**Level of Impact**	5	**Level of Effort**	4
Overall Significance	Low				

12. RAI-SNPB-12

Statistical Design of Experiments

Provide an explanation of methodology used to determine the values of experimental parameters where critical boiling transition measurements would be obtained. Specifically discuss the selection process in light of the general practices in statistical design of experiments where randomization is implemented to reduce any potential biases. Where could such practices be applied, where could such practices not be applied. Provide justification that the resulting statistics would still be applicable over the entire computational domain.

Essential Review Standards	ERS 1.3	**Specific Acceptance Criteria**	SAC 1.3-2	**Section in SE**	
Level of Concern	2	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Medium				

13. RAI-SNPB-13

Mass Flux Uncertainty

[ ]

Generally, estimated accuracies are reported as ± X. Provide further clarification on the estimated accuracy of mass flux.

Essential Review Standards	ERS 1.3	**Specific Acceptance Criteria**	SAC 1.3-3	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	4
Overall Significance	Low				

14. RAI-SNPB-14

Other Means of Measurement

Provide details on the capability for diverse and redundant means of measuring the important experimental parameters including pressure, inlet mass flux, inlet temperature, and power.

Essential Review Standards	ERS 1.3	**Specific Acceptance Criteria**	SAC 1.3-4	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Low				

15. RAI-SNPB-15

Instrumentation Calibration *Provide details on the instrumentation calibration, re-calibration, and verification. Include information on how often were the instruments were calibrated and checked.*					
Essential Review Standards	ERS 1.3	**Specific Acceptance Criteria**	SAC 1.3-5	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Low				

16. RAI-SNPB-16

Calculation of CPR Uncertainty *Provide further details on how the accuracy in the critical power of **[ ]** was determined. Did this uncertainty contain the measurement uncertainties as well as any uncertainties caused by the procedure? How was the uncertainty in CPR calculated?*					
Essential Review Standards	ERS 1.3	**Specific Acceptance Criteria**	SAC 1.3-6	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Low				

17. RAI-SNPB-17

Experimental Uncertainty *Provide an analysis of repeated test points to estimate the experimental uncertainty in the CP value. Demonstrate that this uncertainty is small compared with the overall uncertainty in the critical boiling transition correlation.*					
Essential Review Standards	ERS 1.3	**Specific Acceptance Criteria**	SAC 1.3-6	**Section in SE**	
Level of Concern	3	**Level of Impact**	1	**Level of Effort**	3
Overall Significance	Medium				

18. RAI-SNPB-18

Quantified Heat Losses *Provide an analysis which quantifies the heat losses in the test section and confirms the power measurement and power uncertainty is accurate.*					
Essential Review Standards	ERS 1.3	**Specific Acceptance Criteria**	SAC 1.3-7	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	2
Overall Significance	Low				

19. RAI-SNPB-19

Derivation of the Transient Correlation *Provide additional details on the D5 transient correlation.* ***[*** ***]***					
Essential Review Standards	ERS 2.1	**Specific Acceptance Criteria**	SAC 2.1-1	**Section in SE**	
Level of Concern	3	**Level of Impact**	2	**Level of Effort**	3
Overall Significance	Medium				

20. RAI-SNPB-20

I_2 Limits *Provide additional justification on **[*** ***]***					
Essential Review Standards	ERS 2.1	**Specific Acceptance Criteria**	SAC 2.1-1	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Low				

21. RAI-SNPB-21

Process for Generating Correlation Coefficients *Provide an overview of the manner in which the data was used to generate the correlation coefficients. Start with the initially chosen form and coefficients and detail how those coefficients were updated, when the rod constants and R-factors were initially calculated, and when they were updated, and conclude with the final form of the correlation's coefficients, the R factors, and the rod constants.*					
Essential Review Standards	ERS 2.2	**Specific Acceptance Criteria**	SAC 2.2-2	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Low				

22. RAI-SNPB-22

MEFISTO Analysis *The analysis performed with MEFISTO supported* ***[*** ***]***					
Essential Review Standards	ERS 2.2	**Specific Acceptance Criteria**	SAC 2.2-2	**Section in SE**	
Level of Concern	3	**Level of Impact**	2	**Level of Effort**	3
Overall Significance	Medium				

23. RAI-SNPB-23

Validation Data *Data used to determine the correlation's predictive uncertainty (i.e., validation data) should not be used to train the correlation, as the correlation will predict training data with more accuracy than it would predict data it has never seen. Given that* ***[*** ***]***					
Essential Review Standards	ERS 3.1	**Specific Acceptance Criteria**	SAC 3.1-1	**Section in SE**	
Level of Concern	1	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Medium				

24. RAI-SNPB-24

Enforcement of the Computational Domain *Provide details which specify how the computational domain of the correlation is enforced. What happens if the code using the correlation attempts to apply it outside that domain?*					
Essential Review Standards	ERS 3.1	**Specific Acceptance Criteria**	SAC 3.1-3	**Section in SE**	
Level of Concern	3	**Level of Impact**	5	**Level of Effort**	4
Overall Significance	Low				

25. RAI-SNPB-25

Sparse Region (1) in the Computational Domain ***[*** ***]***					
Essential Review Standards	ERS 3.1	**Specific Acceptance Criteria**	SAC 3.1-4	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Low				

26. RAI-SNPB-26

Sparse Region (1) in the Computational Domain ***[*** ***]***					
Comment	N/A				
Essential Review Standards	ERS 3.1	**Specific Acceptance Criteria**	SAC 3.1-4	**Section in SE**	
Level of Concern	2	**Level of Impact**	3	**Level of Effort**	3

Overall Significance	Medium

27. RAI-SNPB-27

Sparse Region (2) in the Computational Domain *[* *]* Reference					
Essential Review Standards	ERS 3.1	**Specific Acceptance Criteria**	SAC 3.1-4	**Section in SE**	
Level of Concern	2	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Medium				

28. RAI-SNPB-28

Other Sparse Regions in the Computational Domain *[* *]*					
Essential Review Standards	ERS 3.1	**Specific Acceptance Criteria**	SAC 3.1-4	**Section in SE**	
Level of Concern	2	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Medium				

29. RAI-SNPB-29

Demonstrate Data Set Poolability					
Provide analysis which demonstrate that the data from the three axial power distributions are poolable. This analysis should include a comparison of the mean, variances, and shape of the populations of the bottom-peaked, cosine, and top-peaked axial power shapes.					
Essential Review Standards	ERS 3.2	**Specific Acceptance Criteria**	SAC 3.2-1	**Section in SE**	
Level of Concern	2	**Level of Impact**	3	**Level of Effort**	2
Overall Significance	Medium				

30. RAI-SNPB-30

Negative Bias					
Provide a discussion on why not crediting the negative bias is conservative.					
Essential Review Standards	ERS 3.3	**Specific Acceptance Criteria**	SAC 3.3-1	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	4
Overall Significance	Low				

31. RAI-SNPB-31

Figures 4-9 and 4-10					
In Figures 4-9 and 4-10 ***[*** ***]*** *Provide a further analysis of these figures.* Reference					
Review-Specific Standards	RSS 3.3	**Specific Acceptance Criteria**	AC 3.3-1	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Low				

32. RAI-SNPB-32

Degrees of Freedom *How many degrees of freedom were used in the analyses? [ ]*					Reference
Review-Specific Standards	RSS 3.3	**Specific Acceptance Criteria**	AC 3.3-1	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Low				

33. RAI-SNPB-33

Transient Selection *Provide details on the transient forcing functions chosen. Justify how the forcing functions represent the limiting or most extreme AOOs in which the correlation will be applied for safety analysis.*					Reference
Review-Specific Standards	RSS 1.2	**Specific Acceptance Criteria**	AC 1.2-1	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	3
Overall Significance	Low				

34. RAI-SNPB-34

Figure 7-2					
Will the D5 correlation be implemented in computer codes other than BISON-SLAVE? If so, provide the criteria which will be used to ensure an appropriate implantation.					Reference
Review-Specific Standards	RSS 4	**Specific Acceptance Criteria**	SCC 4-1	**Section in SE**	
Level of Concern	3	**Level of Impact**	3	**Level of Effort**	4
Overall Significance	Low				

35. RAI-SNPB-35

Figure 7-2					
Is the y-axis title for figure 7-2 correct?					Reference
Review-Specific Standards	N/A	**Specific Acceptance Criteria**	N/A	**Section in SE**	
Level of Concern	5	**Level of Impact**	5	**Level of Effort**	5
Overall Significance	Low				

Level of Concern	Definition	Significance Score
1	The NRC staff is very concerned as the RAI is focused upon statements which the staff understands, but the staff believes are incorrect.	1
2	The NRC staff is concerned as the RAI is focused upon statements which the staff understands, but the staff is skeptical about being correct.	1
3	The NRC staff is somewhat concerned as the RAI is focused upon statements which the staff understands and believes are correct, but considers the supporting documentation to be inadequate.	0
4	The NRC staff is unsure of their concern as the as the RAI is focused upon statements which the staff does not understand, and; therefore clarification is needed.	0
5	The NRC staff is minimally concerned.	0

Level of Impact	Definition	Significance Score
1	The RAI could have a very large impact. If it is not resolved, either the submittal will be denied or the approval would be so limited that the method described in the submittal may be unusable.	1
2	The RAI could have a large impact. If it is not resolved, the approval will be limited such that the submittal would be usable, but significantly limited.	1
3	The RAI could have somewhat of an impact. If it is not resolved, the approval will be limited such that the submittal would be usable and only slightly limited.	0
4	The impact of the RAI is unknown as it is address information in the submittal which the staff does not understand.	0
5	The RAI likely has a minimal impact. If it is not resolved, the approval would likely not be limited.	0

Level of Effort	Definition	Significance Score
1	The RAI will likely require a very significant level of effort to resolve. Such requests are typically made when important aspects of a specific assertion of the submittal are missing and likely require substantial additional analysis by the submitter or the NRC staff Examples: data required for independent verification, need for additional computational runs, need for additional experimental data	1
2	The RAI will likely require a significant level of effort to resolve. Such requests are typically made when important aspects of a specific assertion of the submittal are missing and likely require additional analysis by the submitter. Examples: complete justifications of an assertion, detailed summary	0
3	The RAI will likely require some level of effort to resolve. Such requests including requesting data or information which may not be immediately available, but is likely known or understood by the submitter. Examples: further explanations or details, high level summary	0
4	The RAI will likely require a small level of effort to resolve. Such requests include requesting a data or information which is likely to be immediately available, but has not been given. Examples: a citation for a reference, a figure or a table of known data	0
5	The RAI will likely require a minimal level of effort to resolve. Such requests include requesting an affirmation of a certain position (i.e., “yes” or “no”). Examples: a confirmation that a certain procedure is being used	0