



Program Management Office
4350 Northern Pike
Monroeville, Pennsylvania 15146

December 21, 2007

OG-07-543

WCAP-15981-NP, Rev 0 (Non-Proprietary)
Project No. 694

To: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: **Comments on the Draft Safety Evaluation for WCAP-15981-NP, "Post Accident Monitoring Instrumentation Re-Definition for Westinghouse NSSS Plants," (LSC-0072 R1/MUHP-3038)**

Reference:

1. NRC Letter, S. Rosenberg to G. Bischoff, "Draft Safety Evaluation for Pressurized Water Reactor Owners Group (PWROG) Topical Report (TR) WCAP-15981-NP, "Post Accident Monitoring Instrumentation Re-Definition for Westinghouse NSSS [Nuclear Steam Supply] Plants," (TAC no. MC4524)", October 22, 2007

The purpose of this letter is to provide comments on the Draft Safety Evaluation (Reference 1) for WCAP-15981-NP, "Post Accident Monitoring Instrumentation Redefinition for Westinghouse NSSS Plants."

Based on several discussions between the PWROG and NRC, the PWROG requests that the changes identified in the Attachment to this letter be incorporated into the Final Safety Evaluation. The PWROG also requests that a teleconference be held to discuss any issues the Staff may have with these comments prior to issuing the Final Safety Evaluation.

Please contact Christine DiMuzio at 412-374-5680 to discuss the proposed changes to this Draft Safety Evaluation.

Sincerely yours,

Frederick P. "Ted" Schiffler, II, Chairman
Pressurized Water Reactor Owners Group

FPS:CAD:sv

D048
LRR

cc: Licensing Subcommittee
Steering Committee
S. Peters, NRC (via FedEx)
S. Rosenberg, NRC (via FedEx)
J. D. Andrachek
R. J. Lutz
C. B. Brinkman
J. A. Gresham
PMO

PWROG Comments on Draft Safety Evaluation for Pressurized Water Reactor Owners Group (PWROG) Topical Report (TR) WCAP-15981-NP, "Post Accident Monitoring Instrumentation Re-Definition for Westinghouse NSSS [Nuclear Steam Supply System] Plants" (TAC No. MC4524)

References:

1. PWROG letter, OG-07-376, Response to Requests for Clarification of June 28, 2007 RAI Responses for WCAP-15981-NP, "Post Accident Monitoring Instrumentation Re-Definition for Westinghouse NSSS Plants," (LSC-0072 R1/MUHP-3038), dated August 22, 2007.
2. PWROG letter, OG-07-292, Response to Additional Requests for Information for WCAP-15981-NP, "Post Accident Monitoring Instrumentation Re-Definition for Westinghouse NSSS Plants," (LSC-0072 R1/MUHP-3038), dated June 28, 2007.

Page 8, Section 3.2.2, Lines 4 though 8:

"However, TR WCAP-15981... should be included in the PAM TS."

Comment 1:

The response to item 4 on page 2 of Attachment 3 to OG-07-376 (Reference 1) discusses that the primary indication of a potential approach to recriticality is provided by the measurement of the reactor coolant boron concentration by sampling, as opposed to the use of instrumentation to determine the boron concentration. Additionally, the Source Range Neutron Flux reactor trip function is contained in Tech Spec 3.3.1, "RTS Instrumentation," which requires the indication to be operable when this portion of the Nuclear Instrumentation System (NIS) provides useful information (i.e., below P-6 when rod withdrawal is imminent or occurring). Additional information supporting this comment was presented during the September 20, 2007 public meeting between the PWROG and the NRC staff (slide 17 in the meeting handout, draft SE Reference 15)..

During the September 20, 2007 public meeting, the NRC staff did not indicate that they disagreed with this conclusion. As a consequence, the PWROG was not provided an opportunity to provide additional information that may have satisfied the NRC staff and changed the staff's conclusion.

The NRC staff should identify the basis of their rejection of the TR WCAP-15981-NP conclusion so that licensees will have an opportunity to provide additional information in plant specific License Amendment Requests.

Page 12, Section 3.2.10, Lines 27 through 33:

"TR WCAP-15981-NP recommends that Refueling Water Storage Tank Level also be classified as a Type B Category 1 key variable for the Core Cooling function. TR WCAP-15981-NP concluded that Refueling Water Storage Tank Level satisfies Criterion 4 of 10 CFR 50.36(c)(2)(ii) and should be included in the PAM TS. However, TR WCAP-15981-NP does not discuss how Refueling Storage Tank Level instrumentation provides information concerning the Core Cooling function. Therefore, the NRC staff is unable to determine the applicability of Refueling Water Storage Tank Level to the Core Cooling function."

Comment 2:

The response to item 1 on page 1 of Attachment 3 to OG-07-376 (Reference 1) provides the discussion of how Refueling Water Storage Tank Level instrumentation provides information concerning the Core Cooling function. Therefore, we believe that the NRC staff should be able to make a determination of the applicability of the Refueling Water Storage Tank Level to the Core Cooling function. Note that while this response to item 1 in Attachment 3 of Reference 1 does not explicitly refer to the Core Cooling function, the response directly discusses the role of the Refueling Water Storage Tank Level in the accomplishment of the Core Cooling function.

Page 13, Section 3.2.11, Lines 1 through 7 and 33 through 37:

"The information provided in the letter dated August 22, 2007 (Reference 14), does not satisfactorily demonstrate that the Containment Sump Water Level (Wide Range) instrumentation used in the CSF status trees of the ERGs for Westinghouse NSSS plants does not meet Criterion 4 of 10 CFR 50.36(c)(2)(ii). Based on the information provided the NRC staff does not agree with the proposed reclassification of Containment Sump Water Level (Wide Range) and concludes that Containment Sump Water Level (Wide Range) should be included in the PAM TS."

.....

"Therefore, the NRC staff agrees with the PWROG that based on the generic assessment, the containment sump water level (wide range) does not satisfy Criterion 4 of 10 CFR 50.36(c)(2) (ii) and need not be included in PAM TS. However, licensees will need to confirm whether this instrument should be retained in the plant-specific TS using the methodology in TR WCAP-15981-NP."

Comment 3:

During the September 20, 2007 public meeting between the PWROG and the NRC staff (slide 21 in the meeting handout, Reference 15 in the draft SE) the basis for the TR WCAP-15981-NP recommendation that the Containment Sump Water Level (Wide Range) instrumentation could be relocated from the PAM TS was discussed with respect to its use in the Emergency Response Guideline Containment Critical Safety Function (CSF) Status Tree. While the NRC staff agreed with this position (as discussed in lines 33 through 37 in the draft SE), the NRC staff did not indicate that they disagreed with the basis for relocation of the Containment Sump Water Level (Wide Range) from the PAM TS from the perspective of indicating function detection, accomplishment of mitigation, and verification of the Maintaining RCS Integrity as discussed in the response to RAI 1, part C. f on page 10 of Attachment 1 to OG-07-292 (Reference 2). As a consequence, the PWROG was not provided an opportunity to provide additional information that may have satisfied the NRC staff and changed the staff's conclusion.

As a result, the draft SE offers two different conclusions regarding relocation of the same indication, i.e., Containment Sump Water Level (Wide Range) from the PAM TS (i.e., lines 1 through 7 versus lines 33 through 37). The PWROG is concerned with the inconsistency in the NRC staff's position with regard to relocating the Containment Sump Water Level (Wide Range) from the PAM TS.

Also, with respect to the NRC staff position stated in lines 1-7, the basis for the rejection of the TR WCAP-15981-NP conclusion should be identified so that licensees will have an opportunity to provide additional information in plant specific License Amendment Requests.

Page 17, Section 3.2.21, Lines 1 through 48, and Page 18 Lines 1 through 8:

"Proposed Alternate Instrumentation.....instrumentation on a generic basis."

Comment 4:

Except for Containment Area Radiation (High Range) which is currently addressed in the Bases for TS 3.3.3 of NUREG-1431, the NRC staff has not generically approved the PWROG recommendations for the use of alternate indications in the event that the instrumentation in the PAM TS is inoperable. The basis for this NRC staff conclusion is tied to the apparent lack of qualification of the alternate instrumentation.

The use of alternate instrumentation was not included in any NRC Requests for Additional Information, nor were any issues raised during the public meeting held on September 20, 2007 (Reference 15 in the draft SE).

The PWROG requests that this discussion be deleted from the draft SE so that the use of alternate instrumentation and the justification for its use can be included in the TSTF that incorporates the other changes proposed by WCAP-15981-NP and approved by the NRC.

Page 18 Lines 10 through 20:

"Core Exit Temperature Channels.....for Core Exit Temperature in NUREG-1431."

Comment 5:

The proposed change to the number of required Core Exit Temperature channels was not included in any NRC Requests for Additional Information, nor were any issues raised during the public meeting held on September 20, 2007 (Reference 15 in the draft SE).

The PWROG requests that this discussion be deleted from the draft SE so that the proposed change to the number of required Core Exit Temperature channels and the justification for the change can be included in the TSTF that incorporates the other changes proposed by WCAP-15981-NP and approved by the NRC.

Page 20, Section 3.2.22, Lines 5 through 10:

"The NRC staff does not agree with the TR WCAP-15981-NP recommendation that the following variables can be relocated from the PAM TS for the function indicated:

Variable	Function	Type/Category
Neutron Flux (Source Range)	Reactivity Control	B1
Containment Sump Water Level	Maintaining RCS Integrity	B1"

Comment 6:

See Comment 1 and 3 above.

Page 20, Section 3.2.22, Lines 12 through 18:

"The NRC staff was unable to determine the applicability of the following variable for the function indicated and, therefore, does not agree with the TR WCAP-15981-NP recommendation that the following variable should be included in the PAM TS for the function indicated:

Variable	Function	Type/ Category
Refueling Water Storage Tank Level"	Core Cooling	A1, D2

Comment 7:

See Comment 2 above.

Page 25, Section 4.0, Lines 9 through 15:

"As discussed in Section 3.2.21.... for Core Exit Temperature in NUREG-1431."

Comment 8:

See Comment 5 above..

Page 26, Section 5.0, Lines 29 through 31:

"For those items where....as a revision to TR WCAP-15981-NP."

Comment 9:

Please revise this sentence to:

"For those items where the NRC staff was unable to conclude that the proposed change was acceptable, the PWROG may submit those changes and the justification for the changes in the TSTF that incorporates the changes proposed by WCAP-15981-NP and approved by the NRC."

Draft SE Attachment, pages 1 (source range) and 4 (RWST level and containment sump water level):

Comment 10:

See comments 1, 2, and 3 above.