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Chief, Rules and Directives Branch  
Division of Administrative Services  
Office of Administration  
U.S. Nuclear Regulatory Commission  
Mail Stop T6-D59  
Washington, DC 20555-0001

Subject: Westinghouse Owners Group  
Westinghouse Owners Group Comments on Proposed Generic  
Communication; "Potential Impact of Debris Blockage on  
Emergency Recirculation During Design Basis Accidents at  
Pressurized Water Reactors"

Reference: Federal Register, Vol. 69, No. 62, March 31, 2004, Page 16980

The Westinghouse Owners Group (WOG) has reviewed the Nuclear Regulatory Commission's (NRC) Proposed Generic Communication; "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors" as published in the Federal Register on Wednesday, March 31, 2004. The primary review effort was performed by a team of Westinghouse and utility personnel who have been intimately involved in the development of the industry guidance related to this issue. The WOG would like to thank the NRC for the opportunity to provide comments at this time.

The WOG understands and appreciates the importance of ensuring that the Emergency Core Cooling and Containment Spray Systems meet their design, safety analysis, and licensing basis requirements. However the WOG has a major concern with the draft Generic Letter (GL). The major concern is with the confirmation of compliance with 10 CFR 50.46(b)(5) and other existing regulatory requirements listed in this generic letter, which is referred to in numerous locations throughout the draft GL. All licensees are in compliance with 10 CFR 50.46(b)(5) and the applicable regulatory requirements that form their current design and licensing basis. The new information presented in the draft GL is not part of any licensees' current design and licensing basis, and therefore the current design and licensing basis does not have to be evaluated with respect to compliance based on this new information. The evaluations to be performed should be focused on what changes, if any, would need to be made to the

F-RFDS = ADM-03  
Adm = C. Petrone (CDP)

- Domestic Members**
- AmerenUE
  - Callaway
  - American Electric Power Co.  
D.C. Cook 1 & 2
  - Arizona Public Service Co.  
Palo Verde 1, 2 & 3
  - Constellation Energy Group  
Calvert Cliffs 1 & 2
  - Dominion Nuclear Connecticut  
Millstone 2 & 3
  - Dominion Virginia Power  
North Anna 1 & 2  
Surry 1 & 2
  - Duke Energy  
Catawba 1 & 2  
McGuire 1 & 2
  - Entergy Nuclear Northeast  
Indian Point 2 & 3
  - Entergy Nuclear South  
ANO 2  
Waterford 3
  - Exelon Generation Company LLC  
Braidwood 1 & 2  
Byron 1 & 2
  - FirstEnergy Nuclear Operating Co.  
Beaver Valley 1 & 2
  - FPL Group  
St. Lucie 1 & 2  
Seabrook  
Turkey Point 3 & 4
  - Nuclear Management Co.  
Kewaunee  
Palisades  
Point Beach 1 & 2  
Prairie Island
  - Omaha Public Power District  
Fort Calhoun
  - Pacific Gas & Electric Co.  
Diablo Canyon 1 & 2
  - Progress Energy  
H. B. Robinson 2  
Shearon Harris
  - PSEG - Nuclear  
Salem 1 & 2
  - Rochester Gas & Electric Co.  
R. E. Ginna
  - South Carolina Electric & Gas Co.  
V. C. Summer
  - Southern California Edison  
SONGS 2 & 3
  - STP Nuclear Operating Co.  
South Texas Project 1 & 2
  - Southern Nuclear Operating Co.  
J. M. Farley 1 & 2  
A. W. Vogtle 1 & 2
  - Tennessee Valley Authority  
Sequoyah 1 & 2  
Watts Bar 1
  - TXU Electric  
Commanche Peak 1 & 2
  - Wolf Creek Nuclear Operating Corp.  
Wolf Creek

- International Members**
- Electrabel  
Doel 1, 2, 4  
Tihange 1 & 3
  - Electricité de France  
Kansai Electric Power Co.  
Mihama 1  
Takahama 1  
Ohi 1 & 2
  - Korea Hydro & Nuclear Power Co.  
Kori 1 - 4  
Ulchin 3 & 4  
Yonggwang 1 - 5
  - British Energy plc  
Sizewell B
  - NEK  
Krško
  - Spanish Utilities  
Asco 1 & 2  
Vandellós 2  
Almaraz 1 & 2
  - Ringhals AB  
Ringhals 2 - 4
  - Taiwan Power Co.  
Maanshan 1 & 2

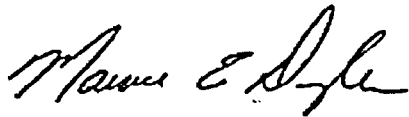
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current design and licensing basis, as opposed to whether the current design and licensing basis is in compliance with the new information. This will result in a much more efficient use of both NRC staff and industry resources to resolve this issue.

Detailed comments are provided in the attachment to this letter and are presented by the section of the draft Generic Letter. If you have any questions associated with these comments, please contact me at 620-364-4127.

Very truly yours,



Maurice E. Dingler, Chairman  
Systems & Equipment Engineering Subcommittee  
Westinghouse Owners Group

Attachment

cc: WOG Steering Committee  
WOG Management Committee  
WOG Licensing Subcommittee  
WOG Systems & Equipment Engineering Subcommittee  
WOG Risk Management Subcommittee  
J.D. Andrachek  
W.J. Rinkacs  
T.S. Andreychek  
T.L. O'Connor  
PMO

**Westinghouse Owners Group  
Comments on**

**Proposed Generic Communication;  
“Potential Impact of Debris Blockage on Emergency Recirculation  
During Design Basis Accidents at Pressurized Water Reactors”**

On March 31, 2004, the NRC published a draft generic communication for public comment. This draft generic communication would request Pressurized Water Reactor (PWR) licensees, except for those that have ceased operations and have certified that fuel has been permanently removed from the reactor vessel to provide information regarding their compliance with 10 CFR 50.46(b)(5), which requires long-term reactor core cooling following a design basis loss of coolant accident based on the additional plant-specific licensing basis requirements listed in the generic letter. The requested information is based on the potential susceptibility of PWR recirculation sump screens to debris blockage during design basis accidents that require recirculation operation of the Emergency Core Cooling System or Containment Spray System (CSS).

The Westinghouse Owners Group (WOG) understands and appreciates the importance of ensuring that the ECCS and CSS meet their design, safety analysis, and licensing basis requirements. The following discussion contains comments from the WOG on the proposed generic communication that are presented by the section of the proposed Generic Letter (GL).

**Purpose**

Comment 1:

Item (1) in the draft GL requests that addressees submit information “to confirm compliance with 10 CFR 50.46(b)(5), which requires long-term core cooling, and other existing regulatory requirements listed in this generic letter.”

The purpose of the GL should be revised to clarify that the intent of the GL is to confirm compliance with 10 CFR 50.46(b)(5) and the other existing requirements listed in the GL, based on the new information (test data and analyses) utilized in the parametric study and technical assessment of GSI-191, that was completed on June 9, 2003. Licensees may be required to revise their “current design and licensing basis,” to be in compliance with 10 CFR 50.46(b)(5) based on this new information, and performing a mechanistic analysis that addresses debris generation and transport. A schedule for revising the design and licensing basis, if required, which may include NRC approval, would be provided in the response to the GL.

The GL should be revised to acknowledge that all licensees are in compliance with 10 CFR 50.46(b)(5) and the applicable regulatory requirements that form their current design and licensing basis.

**Westinghouse Owners Group  
Comments on**

**Proposed Generic Communication;  
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**Background**

**Comment 2:**

The draft GL states “Addressees who were unable to assure regulatory compliance pending further analysis were asked to describe any interim compensatory measures that have been or will be implemented to reduce risk until the analysis could be completed.”

This statement should be revised to reflect that NRC Bulletin 2003-01 provided two options for the Requested Information and the second option was describe what interim compensatory measures that have been or would be implemented. Option 2 was provided in Bulletin 2003-01, because the methodology necessary to perform the mechanistic analysis to address debris generation and transport was not available.

Please also see the discussion for Comment 1 above, regarding compliance with 10 CFR 50.46(b)(5).

**Comment 3:**

To resolve potential concerns identified in the proposed GL, the GL suggests that licensees may need to “reevaluate the adequacy of their compensatory measures in light of the new information and take further action as appropriate and necessary” in accordance with GL 91-18, Revision 1. Operability determinations performed in accordance with GL 91-18 are performed based on a plant’s current licensing basis. The methods for evaluating the condition under the proposed GL have not been reviewed and approved by the NRC, and as such, are not part of any plant’s current licensing basis. Therefore, this is an inappropriate reference to the use of GL 91-18. When the evaluation methods are approved by the NRC, and any plant modifications, if necessary are completed, these changes will then become the new (current) licensing basis, and operability determinations performed in accordance with GL 91-18 will be based on the new licensing basis.

The Background section of the GL should be revised to delete the discussion with respect to the application of GL 91-18.

Please also see the discussion for Comment 1 above, regarding compliance with 10 CFR 50.46(b)(5).

**Westinghouse Owners Group  
Comments on**

**Proposed Generic Communication;  
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**Discussion**

**Comment 4:**

The proposed GL states: In light of the credibility of the concerns identified above, the NRC staff has determined that it is appropriate to request that addressees submit information to confirm their plant-specific compliance with NRC regulations and other existing regulatory requirements listed in this generic letter pertaining to post-accident debris blockage.”

Please see the discussion for Comment 1 regarding compliance.

**Comment 5:**

The proposed GL states: “NRC staff recommends the use of an analysis method that mechanistically accounts for debris generation and transport, post accident equipment and systems operation with debris laden fluid.”

This “recommendation” will be inferred by licensees as a requirement, which will limit the options licensees are likely to explore to resolve the issue. As such, the statement should be deleted from the proposed GL.

**Comment 6:**

The proposed GL states: “To assist in determining on a plant-specific basis whether compliance exists with 10 CFR 50.46(b)(5), addressees may use the guidance contained in Regulatory Guide 1.82, (RG 1.82), Revision 3, “Water Sources for Long-Term Recirculation Cooling Following a Loss-of-Coolant Accident,” dated November 2003.”

Please see the discussion for Comment 1 regarding compliance.

**Applicable Regulatory Requirements**

**Comment 7:**

The proposed GL states: “If, in the course of preparing a response to the requested information, an addressee determines that its facility is not in compliance with the Commission’s requirements, the addressee is expected to take appropriate action in accordance with the requirements of Appendix B to 10CFR Part 50 and the plant technical specifications to restore the facility to compliance.”

Please see the discussion for Comment 1 regarding compliance.

**Westinghouse Owners Group  
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**Requested Information**

**Comment 8:**

Item 1 in the draft GL requests addressees to provide the requested information within 60 days of the date of the GL. The current schedule for issuing the GL is August, 2004. Licensees will have 15 days from the date of issuance to determine whether they will be able to provide the information requested in the GL, and if so, 60 days from the date of issuance to provide the requested information to the NRC.

Given the scheduled August, 2004 date of issuance of the GL, and the issuance of the Safety Evaluation for the industry guidance (methodology) in September, 2004, licensees will have to base the evaluation of their ability to provide the requested information based on an as-yet unapproved methodology for the mechanistic evaluation of ECCS and CSS recirculation functions.

In addition, licensees will have a very limited time (possibly 30 days or less) to evaluate the NRC approved methodology (assuming that the approval occurs at the time of completion of the technical review), determine the applicability to the methodology to their plant(s), identify internal or external resources needed to support the evaluation, and provide a schedule for the completion of the evaluation.

If the GL and NRC Safety Evaluation approving the evaluation methodology are not issued on the same date, the GL should be revised to state, “Within 60 days following the issuance of the Safety Evaluation for the methodology, addressees should...”

**Comment 9:**

Item 2, in the draft GL requests licensees to provide information confirming their compliance with regulatory requirement, including any plant modifications that may be necessary to bring the plant(s) into compliance by April 1, 2005. Licensees will likely not have the qualified resources available to perform all of the activities required to complete the mechanistic evaluations, and to design any necessary plant modifications. Some or all of these activities will likely be performed by qualified contractors. Given the amount of qualified resources available to the industry, it is highly unlikely that the entire fleet of 69 PWRs will be able to complete the evaluations needed by April 1, 2005.

The April 1, 2005 date in the GL should be revised to one year from the date of the GL.

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Comment 10:

Item 2. (d) (iii) in the draft GL includes the consideration of the head loss effects from the chemical environment in containment. The joint NRC/ industry effort to determine these effects will not be completed until at least the end of 2004. The expectation of licensees to accommodate these unknown effects seems unreasonable.

The schedule for the consideration of the impact chemical environment should be revised to reflect the completion and NRC approval of this effort.

The timeframe required for providing the information requested by the proposed GL does not take into account the related activities being performed by the industry to resolve GSI-191, or the review period that would follow the submittal of industry findings. Licensees would be put in the position of submitting license amendment requests based on methods that have not yet been approved at the time of submittal.

**Backfit Discussion**

Comment 11:

Contrary to the backfit discussion that states; “No backfit is intended or approved by the issuance of this generic letter, and the staff has not performed a backfit analysis,” the resolution of the issue is likely to constitute a major backfit. Specifically, Item 2. c. in the Requested Information section of the draft GL states: “The submittal may reference a guidance document (e.g., Regulatory Guide 1.82, industry guidance) or other methodology previously submitted to the NRC.” Regulatory Guide 1.82, Revision 3 was issued in November 2003, which is well after any operating PWR’s operating license was granted.

Additionally, the draft GL does not contain a documented evaluation for not performing a backfit analysis as required by 10 CFR 50.109(a)(4).