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Your ref: Project Number 740  
Our ref: DCP/NRC1859

May 4, 2007

Subject: AP1000 COL Response to Request for Additional Information (TR #71A and 71B)

In support of Combined License application pre-application activities, Westinghouse is submitting responses to NRC requests for additional information (RAI) on AP1000 Standard Combined License Technical Report 71A and 71B, APP-GW-GLR-037, Rev. 0, AP1000 Test Specifications and Procedures and APP-GW-GLR-038, Rev. 0, AP1000 Conduct of Test Program. These RAI responses are submitted as part of the NuStart Bellefonte COL Project (NRC Project Number 740). The information included in the responses is generic and is expected to apply to all COL applications referencing the AP1000 Design Certification.

The responses are provided for requests TR71A-1, TR71A-2, TR71B-1, TR71B-2, and TR71B-3, transmitted in NRC letter dated February 26, 2007 from Steven D. Bloom to Andrea Sterdis, Subject: Westinghouse AP1000 Combined License (COL) Pre-application Technical Reports 71A and 71B – Request for Additional Information (TAC Nos. MD3056 and MD3057).

Pursuant to 10 CFR 50.30(b), the responses to requests for additional information on Technical Reports 71A and 71B are submitted as Enclosure 1 under the attached Oath of Affirmation.

It is expected that when the RAIs on Technical Reports 71A and 71B are complete, the technical reports will be revised as indicated in the responses and submitted to the NRC. The RAI responses will be included in the documents.

Questions or requests for additional information related to the content and preparation of this response should be directed to Westinghouse. Please send copies of such questions or requests to the prospective applicants for combined licenses referencing the AP1000 Design Certification. A representative for each applicant is included on the cc: list of this letter.

Very truly yours,

A handwritten signature in cursive script that reads 'D. J. Hutchings' followed by a small 'for'.

A. Sterdis, Manager  
Licensing and Customer Interface  
Regulatory Affairs and Standardization

/Attachment

1. "Oath of Affirmation," dated May 4, 2007

/Enclosure

1. Response to Requests for Additional Information on Technical Report Nos. 71A and 71B

cc:	S. Bloom	- U.S. NRC	1E	1A
	S. Coffin	- U.S. NRC	1E	1A
	G. Curtis	- TVA	1E	1A
	P. Grendys	- Westinghouse	1E	1A
	P. Hastings	- Duke Power	1E	1A
	C. Ionescu	- Progress Energy	1E	1A
	D. Lindgren	- Westinghouse	1E	1A
	A. Monroe	- SCANA	1E	1A
	M. Moran	- Florida Power & Light	1E	1A
	C. Pierce	- Southern Company	1E	1A
	E. Schmiech	- Westinghouse	1E	1A
	G. Zinke	- NuStart/Entergy	1E	1A

ATTACHMENT 1

“Oath of Affirmation”

ATTACHMENT 1

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of: )  
NuStart Bellefonte COL Project )  
NRC Project Number 740 )

APPLICATION FOR REVIEW OF  
"AP1000 GENERAL COMBINED LICENSE INFORMATION"  
FOR COL APPLICATION PRE-APPLICATION REVIEW

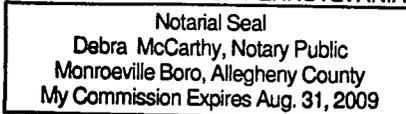
W. E. Cummins, being duly sworn, states that he is Vice President, Regulatory Affairs & Standardization, for Westinghouse Electric Company; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission this document; that all statements made and matters set forth therein are true and correct to the best of his knowledge, information and belief.



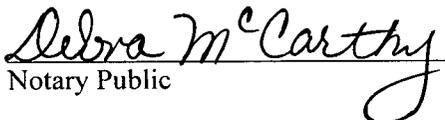
W. E. Cummins  
Vice President  
Regulatory Affairs & Standardization

Subscribed and sworn to  
before me this 4<sup>th</sup> day  
of May 2007.

COMMONWEALTH OF PENNSYLVANIA



Member, Pennsylvania Association of Notaries



Notary Public

ENCLOSURE 1

Response to Requests for Additional Information on Technical Report Nos. 71A and 71B

RAI-TR71A-001, RAI-TR71A-002, RAI-TR71B-001, RAI-TR71B-002, and RAI-TR71B-003

# AP1000 TECHNICAL REPORT REVIEW

## Response to Request For Additional Information (RAI)

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RAI Response Number: RAI-TR71A-001

Revision: 0

### **Question:**

#### RAI 1

In Table 2.2, Integrated Master Plan, of TR-71A, APP-GW-GLR-037, AP1000 Test Specifications and Test Procedures, Page 5 of 8, Westinghouse used the term “Current COL Deliverables,” for Preoperational and Startup Test Specifications. The staff found that the “Current COL Deliverables,” is not consistent with 10 CFR part 52 terminology (e.g., Combine Licence Applicant (COLA) Deliverables). Westinghouse also used the term “Planned Non-COL Deliverables” for draft Preoperational and Startup Test Procedures. The staff found that the term “Planned Non-COL Deliverables” is not consistent with 10 CFR Part 52 terminology (e.g., COLA Responsibilities). Westinghouse needs to clearly define each new term used or use terms which are consistent with 10 CFR Part 52.

### **Westinghouse Response:**

“Current COL Deliverables” will be changed to “Deliverables – Currently Available for NRC Audit.” Similarly, “Planned Non-COL Deliverables” will be changed to “Deliverables To Be Provided by the COL Holder”.

### Reference:

1. APP-GW-GLR-037

### **Design Control Document (DCD) Revision:**

N/A

### **PRA Revision:**

None

### **Technical Report (TR) Revision:**

The Technical Report (APP-GW-GLR-037) will be revised to reflect the response above.

# AP1000 TECHNICAL REPORT REVIEW

## Response to Request For Additional Information (RAI)

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RAI Response Number: RAI-TR71A-002  
Revision: 0

### **Question:**

#### RAI 2

In Section 5.0, DCD Markup, of TR-71A, APP-GW-GLR-037, "AP1000 Test Specifications and Procedures," Westinghouse proposed to revise Section 14.4.2 of the AP1000 Design Control Document (DCD) as follows:

#### 14.4.2 Test Specifications and Procedures

**Completed.** ~~The Combined License applicant is responsible for test specifications and test procedures for the preoperational and startup tests, as identified in subsection 14.2.3, for review by the NRC.~~ **The process to manage the writing, review, approval and submittal for NRC review of AP1000 test specifications and test procedures for the preoperational and startup tests is described in Reference 1. Test specifications for preoperational and startup tests have been prepared. Test procedures for preoperational and startup tests will be provided by the COL holder prior to each planned test.**

Westinghouse needs to provide further clarification on what the term "completed" means. In addition, Westinghouse needs to rework this section to keep the strikeout text because the staff must review test specifications and test procedures. This COL action item will be completed by the COL holder.

### **Westinghouse Response:**

As used in APP-GW-GLR-037 and 038, "completed" means that the NRC has reached a reasonable assurance conclusion that the submitted Westinghouse information has addressed the COL Items. The Test Specifications have been developed by Westinghouse for NRC review and acceptance. At the completion of the NRC's review, there are no residual open items for COL Applicants related to Test Specifications.

The DCD text will be modified as shown below to confirm that the NRC will have an opportunity for review of the test specifications and procedures.

### Reference:

1. APP-GW-GLR-037

# AP1000 TECHNICAL REPORT REVIEW

## Response to Request For Additional Information (RAI)

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### Design Control Document (DCD) Revision:

Revise Subsection 14.4.2 as follows:

#### 14.4.2 Test Specifications and Procedures

The Combined License information requested in this subsection has been partially addressed in APP-GW-GLR-037, Revision 1 and APP-GW-GLR-038, Revision 1 (Reference 1), and the applicable changes are incorporated into the DCD. Test Specifications have been developed as indicated in Reference 1 and are available for NRC onsite review at Westinghouse's offices.

The Combined Operating License Holder will provide the Preoperational and Startup Procedures for NRC prior to each planned test in accordance with the requirements of DCD Section 14.2.3.

The following words represent the original Combined Operating License Information Item commitment.

The Combined License applicant is responsible for providing test specifications and test procedures for the preoperational and startup tests, as identified in subsection 14.2.3, for review by the NRC.

### PRA Revision:

None

### Technical Report (TR) Revision:

The Technical Report (APP-GW-GLR-037) will be revised to reflect the response above.

# AP1000 TECHNICAL REPORT REVIEW

## Response to Request For Additional Information (RAI)

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RAI Response Number: RAI-TR71B-001  
Revision: 0

### **Question:**

#### RAI 3

In Section 5.0, DCD Markup, of TR-71B, APP-GW-GLR-038, "AP1000 Conduct of Test Program," Westinghouse proposed to revise Section 14.4.3 as follows:

#### 14.4.3 Conduct of Test Program

**Completed.** The Combined License applicant is responsible for a startup administration manual (procedure) which contains the administration procedures and requirements that govern the activities associated with the plant initial test program, as identified in subsection 14.2.3. **Conduct of the test program is outlined in Reference 1.**

Westinghouse needs to provide further clarification on what the term "completed" means.

### **Westinghouse Response:**

As used in APP-GW-GLR-037 and 038, "completed" means that the NRC has reached a reasonable assurance conclusion that the submitted Westinghouse information has addressed the COL Items. The Test Specifications have been developed by Westinghouse for NRC review and acceptance. At the completion of the NRC's review, there are no residual open items for COL Applicants related to Test Specifications.

The DCD text will be modified as shown below to confirm that the NRC will have an opportunity for review of the test specifications and procedures.

### Reference:

1. APP-GW-GLR-037

### **Design Control Document (DCD) Revision:**

Revise Subsection 14.4.3 as follows:

#### **14.4.3 Conduct of Test Program**

The Combined License information requested in this subsection has been addressed in APP-GW-GLR-038, Revision 1 (Reference 2), and the applicable changes are incorporated into

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## Response to Request For Additional Information (RAI)

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the DCD. No additional work is required by the Combined Operating License Applicant to address the Combined License information requested in this subsection as delineated in the following paragraph:

The program management description for the process to develop the AP1000 Startup Administrative Manual is delineated in APP-GW-GLR-038, Revision 1 (Reference 2). There are no residual open items for COL applicants related to this COL Information item.

The following words represent the original Combined Operating License Information Item commitment.

The Combined License applicant is responsible for a startup administration manual (procedure) which contains the administration procedures and requirements that govern the activities associated with the plant initial test program, as identified in subsection 14.2.3.

**PRA Revision:**

None

**Technical Report (TR) Revision:**

The Technical Report (APP-GW-GLR-038) will be revised to reflect the response above.

# AP1000 TECHNICAL REPORT REVIEW

## Response to Request For Additional Information (RAI)

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RAI Response Number: RAI-TR71B-002

Revision: 0

### **Question:**

#### RAI 4

Enclosed in TR-71B, APP-GW-GLR-038, the staff reviewed APP-GW-GBY-600, Revision 0, AP1000 Startup Administrative Manual, Program Management Description. The staff found that Westinghouse marked all of the pages in this document as Westinghouse Proprietary Class 3 information. Westinghouse needs to clarify whether this proprietary classification is correct so that the NRC staff can determine if 10 CFR 2.390, "Public inspections, exemptions for withholding," applies to this document. The NRC staff found indications that this Class 3 document is non-proprietary. Westinghouse needs to ensure that all pages in this document are properly classified.

### **Westinghouse Response:**

The classification "Proprietary Class 3" on document APP-GW-GBY-600 is correct, and the pages of the document are properly classified. The Class 3 designation indicates that this is non-sensitive and non-proprietary information which may be distributed both internal and external to Westinghouse. As stated in WCAP-7211, Revision 5:

"When a Class 3 report is submitted to support a license application, it is filed in the NRC Public Document Room."

There is no need to exempt or withhold any of this information from the public.

In the future, Westinghouse plans to mark non-proprietary pages with "Non-Proprietary Westinghouse Class 3"

### Reference:

1. APP-GW-GLR-038, Revision 1

### **Design Control Document (DCD) Revision:**

None

### **PRA Revision:**

None

### **Technical Report (TR) Revision:**

The Technical Report (APP-GW-GLR-038) will be revised to reflect the response above.

# AP1000 TECHNICAL REPORT REVIEW

## Response to Request For Additional Information (RAI)

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RAI Response Number: RAI-TR71B-003

Revision: 0

### **Question:**

#### RAI 5

As part of the staff review of TR 71A and 71B, the staff found that TR 32, Zinc Addition, an AP1000 design change package added the zinc addition subsystem. The staff found that no test abstract exists in AP1000 DCD Section 14.2, Initial Test Program, for the zinc addition subsystem. As noted in RG 1.68, test abstracts are listed for chemical addition and chemical control systems in PWR plants. The zinc addition subsystem may be a subsystem of the chemical addition or chemical control systems in PWR plants; therefore, Westinghouse may need to add a test abstract to AP1000 DCD Section 14.2 and create a test specification and test procedure for this new subsystem.

### **Westinghouse Response:**

The AP1000 design subsumes the zinc addition function into the Chemical and Volume Control System (CVS). Confirmation of the zinc addition function is identified in the Chemical and Volume Control System test specification. Since confirmation of the zinc addition function is a subset of the overall CVS test, a new test abstract is not required for DCD Section 14.2.

### **Reference:**

1. APP-GW-GLR-037, Revision 1

### **Design Control Document (DCD) Revision:**

None

### **PRA Revision:**

None

### **Technical Report (TR) Revision:**

The Technical Report (APP-GW-GLR-038) will be revised to reflect the response above.