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Your ref: Docket No. 52-006
Our ref: DCP/NRC2245

September 3, 2008

Subject: AP1000 Response to Request for Additional Information (SRP7)

Westinghouse is submitting a response to the NRC request for additional information (RAI) on SRP Section 7. This RAI response is submitted in support of the AP1000 Design Certification Amendment Application (Docket No. 52-006). The information included in the response is generic and is expected to apply to all COL applications referencing the AP1000 Design Certification and the AP1000 Design Certification Amendment Application.

A response is provided for RAI-SRP7.1-ICE-02,-04,-06,-09,-18,-22 and -23, RAI-SRP7.2-ICE-05, RAI-SRP7.3-ICE-02, RAI-SRP7.8-ICE-01,-02 and -03, and RAI-SRP7.9-ICE-09, as sent in an email from Dave Jaffe to Sam Adams dated April 30, 2008. This response completes fourty-seven of sixty-one requests received to date for SRP Section 7. A response for RAI-SRP7.1-ICE-03,-05,-07,-08,-10,-13,-14,-17,-19,-20,-24,-26,-27, and -30, RAI-SRP7.2-ICE-01,-02,-03,-04,-06, and -07, RAI-SRP7.3-ICE-01, RAI-SRP7.5-ICE-01, RAI-SRP7.7-ICE-01, RAI-SRP7.8-ICE-04 and -06, and RAI-SRP7.9-ICE-01,-03,-04,-05,-06,-07,-08,-10, and -11 was provided under letter DCP/NRC2195 dated July 7, 2008.

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,

Robert Sisk, Manager
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NRO

/Enclosure

1. Response to Request for Additional Information on SRP Section 7

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ENCLOSURE 1

Response to Request for Additional Information on SRP Section 7

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP7.1-ICE-02
Revision: 0

Question:

Provide access to higher level documents referenced in the eleven documents the applicant has determined completes their "Design Requirements Phase" (Standard Review Plan (SRP), Branch Technical Position (BTP) 7-14 equivalent *Planning Activities Phase*) of the software lifecycle process.

Several references were made to documents for which NRC did not have access during their site visit at Westinghouse's Rockville, MD office. Examples of documents that were referenced in the software plans at the Rockville, MD office include:

- WEC Quality Management Commitments
- WNA-PN-00031 General Program Plan
- AP 3.2 Design Change Procedure
- AP1000 Procedure AP6.3
- Nuclear Automation Edition of the Westinghouse Policies and Procedures Manual

Provide access to the current versions of these documents, and others, referenced in the eleven documents that comprise the design requirements phase.

Westinghouse Response:

WEC Quality Management Commitments: The WEC Quality Management Commitment referenced above is found in document WNA-PQ-00166-Gen, RRAS AP1000 NuStart I&C program Project Quality Plan. This statement is a reference to the Westinghouse Quality Management System (also known as the QMS) which was developed to comply with regulatory, industry, and customer quality requirements imposed by customers or regulatory agencies for items and services provided by Westinghouse world-wide operations. The QMS describes the Westinghouse commitments to the quality assurance requirements of ISO 9001; ISO 9000-3; 10CFR50, Appendix B; ASME NQA-1; and IAEA 50-C-QA. This document is available at the Westinghouse Energy Center, Monroeville, PA for NRC review.

WNA-PN-00031 General Program Plan: This document is entitled "Project Plan RRAS AP1000 NuStart I&C Program". It defines the interface between WEC and intended COL applicants for provision of the instrumentation and control (I&C) scope of design needed to support a Combined Operating License (COL) application submittal to the US NRC by a customer seeking to construct and operate an AP1000 plant. This document is available at the Westinghouse Energy Center, Monroeville, PA for NRC review.

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AP 3.2 Design Change Procedure and AP1000 Procedure AP6.3: Both of these documents are sections of the overall APP-GW-GAP-100, AP1000 Nuclear Power Plants Program Operating Procedures. This document is available at the Westinghouse Energy Center, Monroeville, PA for NRC review.

Nuclear Automation Edition of the Westinghouse Policies and Procedures Manual: This document is Reference 4 of WCAP-16096-NP-A, Revision 1 which the staff has found acceptable for referencing in licensing applications (Reference NRC Safety Evaluation and Cover Letter – September 28, 2004). Because WCAP-16096 has been previously approved by the NRC, WEC requests that the request for this Reference document be withdrawn.

In summary, to support the NRC efforts for verifying the design requirements phase of the software life-cycle process, the requested documents are available for NRC review at the Westinghouse Energy Center, Monroeville, PA. The documents comply with the Westinghouse Quality Management System (QMS).

Design Control Document (DCD) Revision:
None

PRA Revision:
None

Technical Report (TR) Revision:
None

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP7.1-ICE-04
Revision: 0

Question:

Demonstrate to what quality standards the Westinghouse NPP organization will hold its employees, and any subcontractor organizations, throughout the project plan and design process for any AP1000 safety-related software system.

Several documents listed as proof of completion of the Design Requirements Phase are actually documents detailing the relationship between Westinghouse RRAS and Westinghouse NPP (for example, RRAS AP1000 NuStart I&C Program Project Plan (WNA-PN-00031-GEN) and RRAS AP1000 NuStart I&C Program Project Quality Plan (WNA-PQ-00166-GEN)). While the documents reveal how the subcontractor (Westinghouse RRAS) interfaces with the parent organization (Westinghouse NPP), they do not provide information detailing how Westinghouse NPP interfaces, and holds accountable, Westinghouse RRAS, employees, and other subcontractors. The response to this question should outline the standards used by Westinghouse NPP and how it ensures subordinate organizations, or persons, comply with those standards.

Westinghouse Response:

Quality Management System

The Westinghouse quality policy is entitled "Quality Management System" (QMS). It has been developed to comply with regulatory, industry, and customer quality requirements imposed by customers or regulatory agencies for items and services provided by Westinghouse world-wide operations. The QMS describes the Westinghouse commitments to the quality assurance requirements of ISO 9001; ISO 9000-3; 10CFR50, Appendix B; ASME NQA-1; and IAEA 50-C-QA.

The QMS applies to all Westinghouse (including NPP, RRAS, Services, and Fuel) activities that affect the quality of items and services supplied by Westinghouse. It defines the basic requirements applicable to customer contracts and is a commitment to our customers. It serves as a directive for all functions in establishing necessary policies and procedures that comply with the requirements of ISO 9001:2000 and ISO 9000-3:1997; and in addition, as applicable for safety-related activities, 10CFR50, Appendix B; ASME NQA-1-1994 Edition; and IAEA 50-C-QA, Revision 1.

AP1000 Nuclear Power Plants Program Operating Procedures (APP-GW-GAP-100)
Aligned with the Quality management System is the AP1000 Nuclear Power Plants Program Operating Procedures. This document encompasses all the procedures utilized by NPP for maintaining operational control. Included in those procedures are the following:

- QA Program
- Design Control (including change control)
- Procurement Document Control
- Document Control (including control of document preparation, review, and approval)
- Inspection
- Test Control
- Corrective Action
- Interface Agreements

These are just a sampling of the procedures in place to maintain operational control.

Design Control Document (DCD) Revision:
None

PRA Revision:
None

Technical Report (TR) Revision:
None

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP7.1-ICE-06
Revision: 0

Question:

Provide via docketing, or make available for review, the *Programming Guidelines for Common Q Systems*, which is listed as Reference 14 within the Common Q Software Configuration Management Guidelines (NABU-DP-00015-GEN).

Westinghouse Response:

The latest revision of the Coding Standards and Guidelines for Common Q Systems (00000-ICE-3889, revision 8) is available at the Westinghouse Energy Center in Monroeville, PA for NRC review.

Design Control Document (DCD) Revision:
None

PRA Revision:
None

Technical Report (TR) Revision:
None

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP7.1-ICE-09
Revision: 0

Question:

Item 4 of WNA-PJ-00071-GEN, "AP1000 NuStart PMS Software Project Plan," Appendix A, states that the Test/System Integration Phase I V&V is not within the scope of the AP1000 NuStart project. The software project will be frozen at the processor module software test for Division B software.

- Does this mean Division A, C, and D software will not be tested? Thus all software is considered "in-process" and incomplete. Provide the basis for this statement.
- In addition, if the software is considered incomplete, when will the software be completed?

It appears that Divisions A and D are different from Divisions B and C software because of the interaction between Qualified Data Processing System and Divisions B and C only. How will testing of Division B software validate the software for Divisions A and D?

Westinghouse Response:

The deliverable for the cited plan is a detailed design up to and including the software design. This includes a software demonstration system using a test bed configured for Division B. It was not intended to validate all software for all divisions. The demonstration software for Division B marks the conclusion of the plan's scope.

Once the demonstration software for Division B is complete, a software development plan will be developed to complete the software development life cycle taking credit for work completed in first plan. This would include activities for unit testing, code review, channel integration test for all four divisions, and system integration test, as well as the life cycle V&V activities.

The completed Division B software is a sufficient sample to close the DAC software open issue and the V and V issue, because the completed development of Division B software will demonstrate all of the representative software subroutines included in all of the divisions (i.e., the RPS, ESFAS and QDPS functions).

Design Control Document (DCD) Revision:
None

PRA Revision:
None

Technical Report (TR) Revision:
None

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Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP7.1-ICE-18
Revision: 0

Question:

Provide further information on the physical location of remote I/O modules. Demonstrate that the physical location of the remote I/O modules will be protected from the probability and effect of fires and explosions.
In accordance with 10 CFR Part 50, Appendix A, General Design Criteria 3, "Fire Protection," structures, systems, and components important to safety shall be designed and located to minimize, consistent with other safety requirements, the probability and effect of fires and explosions. Noncombustible and heat resistant materials shall be used wherever practical throughout the unit, particularly in locations such as the containment and control room. The NRC staff has reviewed the description of the remote I/O modules within Section 3.2.1 of WCAP-16674-P. However, the NRC staff could not find information on the physical location of the remote I/O modules within the plant. How does Westinghouse meet the location requirements of GDC 3 with respect to the placement of remote I/O modules?

Westinghouse Response:

The Remote I/O modules are non-safety. The Remote I/O modules are not applicable to 10 CFR Part 50, Appendix A, General Design Criteria (GDC) 3, "Fire Protection". Therefore, identification of the location of Remote I/O modules is not required to satisfy GDC 3.

Design Control Document (DCD) Revision:
None

PRA Revision:
None

Technical Report (TR) Revision:
None

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Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP7.1-ICE-22
Revision: 0

Question:

Provide sufficient information on the docket for the NRC staff to determine the quality of the logic within the CIM.

Section 5.1.5 of WCAP-16675-P describes the CIM as a non-software based Class 1E device that is not considered to be susceptible to a software common-cause failure. However, insufficient information has been provided on the docket for the NRC staff to conclude that the CIM is not susceptible to a software common-cause failure. The applicant needs to address all of the criteria in Section 2, "Command Prioritization" of NRC ISG, "Highly-Integrated Control Rooms – Communication Issues," as it is the current guidance the NRC staff uses to conclude the absence of software common-cause failures in digital systems. If an alternate method to the interim staff guidance is proposed, provide a detailed basis for how the alternate method achieves the same outcome as the guidance.

Westinghouse Response:

The Requirements for the CIM design have been completed. The detailed design is ongoing. The issues raised by the NRC ISG are being addressed in the design and details will become available as the detailed design is completed, which is expected to be November 2008.

Design Control Document (DCD) Revision:
None

PRA Revision:
None

Technical Report (TR) Revision:
None

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP7.1-ICE-23
Revision: 0

Question:

Describe the hardware qualification of the CIM. Provide on the docket the test plans and results and/or the analysis for seismic, environmental, electromagnetic/radio-frequency interference, and other hardware qualification testing.

Clause 5.4 of IEEE 603-1991 requires, in part, that safety system equipment shall be qualified by type test, previous operating experience, or analysis, or any combination of these three methods, to substantiate that it will be capable of meeting, on a continuing basis, the performance requirements as specified in the design basis. Section 5.1.5 of WCAP-16675-P provides a description of the CIM but does not provide any information regarding hardware qualification for the CIM device. The NRC staff needs detailed information on the hardware qualification of the CIM in order to approve the device for use in a Class 1E application.

Westinghouse Response:

The CIM design is ongoing. The qualification of the CIM will be part of the AP1000 Safety System qualification test. The results of the qualification will be supplied as part of the Inspection, Tests, Analyses, and Acceptance Criteria that is documented in Table 2.5.2-8 of the "AP1000 Design Control Document."

Reference:

1. APP-GW-GL-700, "AP1000 Design Control Document," Revision 16

Design Control Document (DCD) Revision:
None

PRA Revision:
None

Technical Report (TR) Revision:
None

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP7.2-ICE-05
Revision: 0

Question:

In Section 2.2.5 of WCAP 16675-P (Page 2-18) states, *"[To reduce wear on the breakers through excessive tripping, and to avoid a potential plant trip resulting from a single failure while testing is in progress, the test sequence is designed so that the actual opening of the trip breakers is only required when the trip breaker itself is being tested.]"* Explain exactly how this activity is being accomplished. Include in the explanation exactly when during testing and other maintenance activities the Reactor Trip Circuit Breakers will actually be opened and at what periodicity.

Westinghouse Response:

The surveillance requirement 3.3.1.5 requires the performance of Trip Actuating Device operational Test (TADOT) on both reactor trip breakers associated with a single division. The required frequency is 92 days on a staggered test basis, which means with 8 breakers they all get tested once a year. The arrangement of the breakers is such (see page 2-2 WCAP 16675-P) that one division can be tripped without removing power to the Control Rods.

The Maintenance Test Panel (MTP) can be used to inject values in the software to initiate a trip of the bistable. The MTP can select the number of voter processors that get the injected values. If you are not testing the trip of the breaker you will select input to only 1 of the 4 voter processors. The MTP will receive feedback from the relay matrix which performs the 2 out of 4 trip of the associated division's breaker. This verifies the function of the system up to the relay matrix. If you want to test the trip of the breaker you would inject values into 2 of the voter processors causing a 2 out of 4 condition in the relay matrix tripping that division's breaker.

Since you can only inject signals in one division at a time, you can only trip one division's breakers which will not remove power to the Control Rods.

Reference:
1. WCAP-16675-P (APP-GW-GLR-071, Technical Report 89), "AP1000 Protection and Safety Monitoring System Architecture Technical Report", Revision 0, February 2007

Design Control Document (DCD) Revision: None

PRA Revision: None

Technical Report (TR) Revision: None

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP7.3-ICE-02
Revision: 0

Question:

Provide additional detail of the manual control scheme of the PMS Engineered Safety Features Actuation System (ESFAS) function as described in WCAP 16675-P.

Per WCAP 16675-P, the manual system level actuation uses all automatic PMS components with the exception of the Bistable Processor Logic device. Regulatory Position Point 4 in Regulatory Guide 1.62, "Manual Initiation of Protective Actions," reads, "*The amount of equipment common to both manual and automatic initiation should be kept to a minimum.*" Furthermore, Section 6.2.1 of IEEE Standard 603-1991 reads, "*The means provided [for manual initiation of a safety system] shall...* ***depend on the operation of a minimum of equipment consistent with the constraints of*** *[Section]* ***5.6.1*** *[Independence].*" It is currently difficult for the NRC staff to see how the manual actuation of the ESFAS functions meets this criteria.

Westinghouse Response:

Within a division of the PMS, the only parts involved in manual ESF system level actuation are the switch itself, the Local Coincidence Logic (LCL), Integrated Logic Processor (ILP) and Component Interface Module (CIM).

Manual ESF system level actuation is initiated by the operator from the Main Control Room (MCR) via dedicated switches located on the Primary Dedicated Safety Panel (PDSP) and Secondary Dedicated Safety Panel (SDSP), or from the Remote Shutdown Room (RSR) via dedicated switches located on the RSR panel. In each PMS division, the signal from the switch is connected to the LCL subrack where it is converted into a redundant ESF system level actuation command. In the LCL, the manual ESF system level actuation command is "ORed" with the automatic determination of ESF system level actuation from the ESF coincidence logic. The ESF system level actuation command from the OR function is sent to the ILP via a High Speed Link (HSL). The ILP performs the component fan-out function which converts the ESF system level command into individual actuation signals to the various Component Interface Modules (CIMs). The CIM outputs are directly connected to the actuated component.

The approach for AP1000 PMS is analogous to the manual ESF system level actuation in a conventional Westinghouse plant. In a conventional Westinghouse plant, the manual ESF system-level actuation is initiated by the operator from the MCR via dedicated switches located on the Main Control Board. The signal from each switch is connected to the Solid State Protection System (SSPS). The signal enters the SSPS downstream of the 2oo4 coincidence logic and block control, and upstream of the Master Relay. The Master Relays within the SSPS latch the system-level actuations. The output contacts of the Master Relays perform the fan-out of the system-level actuations to the individual component-level Slave Relays. Comparing

AP1000 PMS to a conventional Westinghouse manual ESF system level actuation scheme, the LCL is equivalent to the SSPS 2oo4 coincidence logic, block control, and the latch function of the Master Relay; the fan-out of the High Speed Links to the ILPs and the fan-out from the ILPs to the CIMs are equivalent to the fan-out function of the Master Relay; and the CIM is equivalent to the Slave Relay interface to the field component.

In summary, the "minimum of equipment" criterion in IEEE-603-1991, Sections 5.6.1 and 6.2.1 involves two areas: (1) minimum signal path from manual switch to actuated component, and (2) minimum amount of actuated equipment. The information above describes how the manual ESF actuation function is implemented in the AP1000 PMS. Compliance with the minimum signal path criterion is achieved because the design involves the minimum signal path for manual actuation of ESF functions from the MCR. If the manual ESF system level command from the MCR enters the ILP downstream of the LCL, then it would have to be hardwired to every ILP chassis in each division (2 to 8 ILP chassis). This approach would result in undue wiring complexity and cable separation issues.

Compliance with the minimum amount of actuated equipment is achieved because only the fluid system components (valves, breakers, etc) necessary to achieve the desired ESF result are actuated. No additional ESF components are actuated.

The AP1000 PMS combines the manual system actuations with the automatic system actuations in a manner analogous to that used in the operating fleet.

Design Control Document (DCD) Revision:
None

PRA Revision:
None

Technical Report (TR) Revision:
None

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP7.8-ICE-01
Revision: 0

Question:

With regards to Table 14.3-3 of the AP1000 DCD, Revision 16, Tier 2, Chapter 14 (Page 14.3-35), the third table item from bottom of table shows the term "microprocessor" was not replaced with "microprocessor or special purpose logic processor. In Tier 2, Chapter 7 of the AP1000 DCD, the term microprocessor was replaced with "microprocessor or special purpose logic processor". Which wording phrase is correct?

Westinghouse Response:

The correct wording for table 14.3-3 of the AP1000 DCD, Revision 16, Tier 2, Chapter 14 (Page 14.3-34), the third table item from bottom of table should read "uses microprocessor or special purpose logic processor boards". The wording will be corrected in DCD Revision 17.

Design Control Document (DCD) Revision:
Revise Rev.16 Table 14.3-3 - ANTICIPATED TRANSIENT WITHOUT SCRAM as follows:

Section 7.7.1.11	The manual actuation function of the diverse actuation system is implemented by wiring the controls located in the main control room directly to the final loads in a way that bypasses the normal path through the control room multiplexers, the protection and safety monitoring system cabinets, and the diverse actuation system logic.	
Section 7.7.1.11	The diverse actuation system uses ~~a~~ microprocessor or special purpose logic processor boards different from those used in the protection and safety monitoring system.	
Section 7.7.1.11	The diverse actuation system hardware implementation is different from that of the protection and safety monitoring system.	

PRA Revision:
None

Technical Report (TR) Revision:
None

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP7.8-ICE-02
Revision: 0

Question:

With regards to Table 14.3-6, Sheet 7 of the AP1000 DCD, Revision 16, Tier 2, Chapter 14 (Page 14.3-46), in the second table item from bottom of table, the term "different" was not removed from term "different software", and replaced with "any" as was done to Section 7.7.1.11, "Diverse Actuation System." Update and correct as necessary.

Westinghouse Response:

The wording in Table 14.3-6 (Sheet 7 of 10) of Chapter 14 will be revised in DCD Rev 17 as detailed below. In addition, section 7.7.1.11 of Chapter 7 will be revised to be consistent with table 14.3-6.as detailed below.

Design Control Document (DCD) Revision:

Revise DCD Rev. 16 Section 14.3-6 (Sheet 7 of 10), Reference Section 7.7.1.11 as follows:

Section 7.7.1.11	The DAS automatic actuation signals are generated in a functionally diverse manner from the PMS signals. Diversity between DAS and PMS is achieved by the use of different architecture, different hardware implementations, and different software, if any.	

Revise DCD Rev. 16 Section 7.7.1.11 in chapter 7 as follows:

The DAS automatic actuation signals are generated in a functionally diverse manner from the PMS signals. Diversity between DAS and PMS is achieved by the use of different architectures, different hardware implementations and ~~any~~ different software, if any ~~from that of the protection and safety monitoring system~~.

Diversity of any software is achieved by running different operating systems and programming in different languages.

PRA Revision:
None

Technical Report (TR) Revision:
None

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP7.8-ICE-03
Revision: 0

Question:

In Table 19.59-18, Sheet 8 (Page 19.59-82), Table Section 3, the word "different" was not removed from term "different software" and replaced with "any" as was done to Section 7.7.1.11, "Diverse Actuation System." Update and correct as necessary.

Westinghouse Response:

Section 7.7.1.11 is being revised by RAI-SRP7.8-ICE-02. The wording in Table 19.59-18 Sheet 8 (Page 19.59-82), Table Section 3 will be revised in DCD Rev 17 as detailed below:

Design Control Document (DCD) Revision:
Revise DCD Rev. 16 Section 19, Table 19.59-18 Sheet 8 (Page 19.59-82), Table Section 3, Insight column, 5th Row as follows:

– The DAS automatic actuation signals are generated in a diverse manner from the PMS signals. The DAS automatic actuation signals are generated in a functionally diverse manner from the PMS signals. Diversity between DAS and PMS is achieved by the use of different architectures, different hardware implementations, and different software, if any.

PRA Revision:
None

Technical Report (TR) Revision:
None

AP1000 TECHNICAL REPORT REVIEW

Response to Request For Additional Information (RAI)

RAI Response Number: RAI-SRP7.9-ICE-09
Revision: 0

Question:

Provide additional information on the communication and function processors used within the Component Interface Module (CIM). Specifically, clarify the design of the memory and resource allocation within the function and communication processors.

To meet the independence requirements of IEEE 603-1991, the ISG for Highly Integrated Control Room- Communications provided guidance on safety to non-safety communication. Demonstrate how Westinghouse meets this ISG or a suitable alternative to satisfy the independence requirement? Specifically, do the communication and function processors operate asynchronously, sharing information only by means of dual-ported memory or some other shared memory resource that is dedicated exclusively to this exchange of information?

Westinghouse Response:

The Requirements for the CIM design have been completed. The detailed design is ongoing. The CIM will be a hardware based device that uses Field Programmable Gate Array (FPGA) technology. With this approach, the CIM will not contain a processor. Separate logic will be used for the communication interface and the priority logic. These sections of the logic will pass information through a buffer. The independence requirements of IEEE-603-1991 and the issues raised in ISG for "Highly Integrated Control Room – Communication" are being addressed in the detailed design. Specific details on how these requirements are addressed will be available when the detailed design is complete, which is expected to be in November 2008.

Design Control Document (DCD) Revision:
None

PRA Revision:
None

Technical Report (TR) Revision:
None