

14. VERIFICATION PROGRAMS

14.2 Initial Plant Test Program

14.2.9 Preoperational Test Abstracts

14.2.9.1 Introduction

Westinghouse has proposed significant changes to the following items in the AP1000 design control document (DCD) related to preoperational testing: (1) squib valves associated with passive core cooling (DCD Section 14.2.9.1.3), (2) control rod drive system (CRDS) (DCD Section 14.2.9.8), and (3) main alternating current (ac) power testing (DCD Section 14.2.9.2.15).

14.2.9.2 Evaluation

The staff sent Westinghouse a request for additional information (RAI) regarding the passive core cooling system test description in Section 14.2.9.1.3 of Revision 16 of the AP1000 DCD. The staff noted in RAI-SRP14.2-CQVP-10 that, under the "General Test Methods and Acceptance Criteria," item (t), Westinghouse described the testing of the squib valves as they relate to verification of the passive core cooling system safety injection function. Westinghouse stated that this test does not have to be performed in the plant. Westinghouse added this last sentence to the test abstract as part of Revision 16 of the AP1000 DCD. In the RAI the staff requested Westinghouse to provide justification for this change. In its July 11, 2008, response to this RAI, Westinghouse stated that the last sentence of this section was added as an editorial change to clarify that this testing could be done without causing the risk of an actual safety injection into the core. Additionally, Westinghouse stated that the reliability of these valves could be verified without the valves actually being installed in the operating passive core cooling system.

The staff reviewed Westinghouse's response to this RAI and determined that this change does not affect the test of the squib valves consistent with Regulatory Guide (RG) 1.68, and adequate verification of the performance of these valves could be verified through qualification testing. On this basis, the staff concluded that the passive core cooling system test adequately addresses proper operation of the squib valves and verifies adequate safety injection, and is, therefore, acceptable. This resolves RAI-SRP14.2-CQVP-10.

In RAI-SRP14.2-CQVP-9, the staff requested additional information regarding the "Control Rod Drive System" (CRDS) test description in Section 14.2.9.1.8 of the AP1000 DCD, Revision 16. The staff noted that Section 14.2.9.1.8 of the AP1000 DCD, Revision 16, CRDS, stated that, as a prerequisite for the control rod drive mechanism cooling test, "the plant is at or near normal operating temperature and pressure, and post-core hot functional testing is in progress." The staff noted that Westinghouse added the word "post-core" to the test abstract as part of Revision 16 of the AP1000 DCD and asked that Westinghouse justify this change. In its July 11, 2008, response to this RAI,

Westinghouse stated that the addition of the word “post-core” to modify the hot functional testing of the control rod drive mechanism was an editorial change to clarify the fact that this test can only occur after the core is loaded. The staff reviewed Westinghouse’s response to this RAI and determined that this change clarifies the prerequisites of this test, does not affect the test abstract for the CRDS, and is consistent with the test recommended in RG 1.68, “Initial Test Programs for Water-Cooled Nuclear Power Plants.” Therefore, the staff finds this change to be acceptable. This resolves RAI–SRP14.2–CQVP–9.

In test abstract 14.2.9.2.15, “Main AC Power System Testing,” the staff noted that Westinghouse included additional verification activities under “General Methods and Acceptance Criteria” for the bus transfer schemes as part of the test activities associated with the main AC power system. Westinghouse modified this test abstract to ensure that appropriate testing of the bus transfer schemes occurs during the preoperational phase of the initial test program. Section 8.3.1 of the AP1000 DCD provides details regarding the AC power system and the function of the bus transfer schemes.

The staff reviewed Westinghouse’s proposed change to test abstract 14.2.9.2.15 and determined that this change provides a means to verify proper operation of the automatic and maintenance bus transfer schemes, does not affect the test of the main AC power system, and is consistent with the guidance contained in RG 1.68. On this basis, the staff concluded that the change is acceptable.

The NRC staff notes that Westinghouse introduced several changes to the preoperational test abstracts in Revision 17 of the AP1000 DCD. Upon review, the NRC staff found that these changes were consistent with plant design changes and equipment naming conventions and have no significant impact on preoperational testing. Therefore, these changes are acceptable.

14.2.9.3 Conclusion

The staff reviewed the proposed changes to the preoperational test program described in Section 14.2.9 of the AP1000 DCD. On the basis of this review, the staff concludes that Section 14.2.9, as revised, complies with Section XI, “Test Control,” of Appendix B, “Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants,” to Title 10, Part 50, “Domestic Licensing of Production and Utilization Facilities,” of the *Code of Federal Regulations* (10 CFR Part 50). This section requires the establishment of a test program to ensure that all testing required to demonstrate that structures, systems, and components (SSCs) will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents. Accordingly, the staff finds the changes proposed by Westinghouse to be acceptable.

14.3 Tier 1 Information

14.3.2 Inspection, Test, Analysis, and Acceptance Criteria (ITAAC)

A number of changes to ITAAC were proposed in Revision 16 and 17 of the AP1000 DCD. The NRC staff evaluations of the proposed changes to ITAAC (which are Tier 1 information) appear in those SER sections where the subject structures, systems and components are discussed. For example, with regard to changes in Tier 1 DCD Table 2.1.1-1 concerning the fuel handling machine, these changes are evaluated in Section 9.1 of this SER.

14.3.3 Design Acceptance Criteria (DAC)

Changes to design acceptance criteria (DAC) were proposed in Revision 16 and 17 of the AP1000 DCD. The NRC staff evaluations of the proposed changes to DAC (which are Tier 1 information) appear in those SER sections where the subject structures, systems and components are discussed. For example, the Tier 1 information found in the DCD Tier 1, Section 2.5.2, "Protection and Safety Monitoring Systems," Item 11, addresses the hardware and software development process for the design, testing and installation of instrumentation and control (I&C) equipment. Changes to this Tier 1 information are evaluated in Section 7.2 of this SER.

14.3.5 Changes to Tier 1 Information

This section addresses the proposed changes to the DCD Tier 1 information contained in the application for amendment to the design certification, as supplemented. Tier 1 information includes the following:

- definitions and general provisions
- design descriptions
- inspections, tests, analysis, and acceptance criteria
- significant site parameters
- significant interface requirements

The Tier 1 information is derived from the DCD Tier 2 information. This SER evaluates the proposed changes to the Tier 1 information in those SER sections in which the associated changes to the Tier 2 information are located, except as described below.

14.3.5.1 Evaluation

Section 1.1 of DCD Tier 1 provides the current definition of "as-built" as follows:

As-built means the physical properties of a structure, system, or component (SSC) following the completion of its installation or construction activities at its final location at the plant site.

This definition will be used in implementing the inspection, test, analyses, and acceptance criteria (ITAAC) verification process. This definition intends that the determination of whether an SSC meets the acceptance criteria in the respective ITAAC be performed at its final, in-place location. This approach meets the intent of the ITAAC requirement in 10 CFR 52.97(b).

By letter dated June 13, 2008, Westinghouse submitted AP1000 DCD Impact Document APP-GW-GLE-007, Revision 0, "ITAAC Changes." One of the proposed changes to the ITAAC would change the definition of "as-built." The proposed change would add the following sentence to the definition of "as-built":

Determination of physical properties of the as-built structure, system, or component may be based on measurements, inspections, or tests that occur prior to installation provided that subsequent fabrication, handling, installation, and testing does not alter the properties.

This proposed change to the definition of "as-built" concerned the NRC staff because the AP1000 ITAAC were developed with the expectation that verifications would be performed in the final, in-place location of the SSC. Also, the shipping, storage, handling, and installation performed after vendor fabrication and prior to the final, in-place location can damage an SSC. The staff raised these concerns during discussions with representatives of the Nuclear Energy Institute (NEI).

On August 1, 2008, NEI submitted NEI 08-01, Revision 0, "Industry Guidelines for ITAAC Closure Process under 10 CFR Part 52," a draft of which was the basis for the proposed change to the definition of "as-built" in APP-GW-GLE-007, Revision 0. Section 3.1.4 of NEI 08-01 contains the following statement to clarify the definition of "as-built":

Many ITAAC require verification of "as-built" SSCs. However, some of these ITAAC will involve measurements and/or testing that can only be conducted at the vendor site due to the configuration of equipment or modules or the nature of the test (e.g., measurements of reactor vessel internals). For these specific items where access to the component for inspection or test is impractical after installation in the plant, the ITAAC closure documentation (e.g., test or inspection record) will be generated at the vendor site and provided to the licensee.

The NRC staff understands that it may be impossible to perform some ITAAC verifications of an SSC in its final, in-place location. Therefore, the staff agrees with the NEI proposal to modify the definition of "as-built" with the clarification provided by the above statement and additional documentation demonstrating that subsequent fabrication, handling, installation, and testing did not alter the properties of the SSC.

In RAI-SRP14.3-NWE2-01, the NRC staff requested that Westinghouse incorporate the above clarification into the AP1000 definition of "as-built" since it significantly restricts the completion of ITAAC at a vendor's site. In its response to RAI-SRP14.3-NWE2-01, provided by letter dated September 9, 2008, Westinghouse declined to incorporate the

subject clarification into the definition of “as-built.” In a December 9, 2008, revised response to RAI-SRP14.3-NWE2-01, Westinghouse proposed to incorporate the subject clarification in Tier 2. The NRC staff’s position is that this approach would provide too much latitude in application of the subject clarification and that the clarification should be incorporated into the definition itself within Tier 1 of the DCD. This was Open Item OI-SRP14.3-NWE2-01.

The industry and the NRC subsequently agreed to augment the NEI 08-01 definition of “as-built” to match the definition agreed to between the NRC and the industry at the December 17, 2009, Category 3 Public Meeting on ITAAC maintenance. The following definition is considered acceptable:

As-built means the physical properties of a structure, system, or component following completion of its installation or construction activities at its final location at the plant site. In cases where it is technically justifiable, determination of physical properties of the as-built structure, system, or component may be based on measurements, inspections, or tests that occur prior to installation, provided that subsequent fabrication, handling, installation, and testing do not alter the properties.

In a February 19, 2010, response to RAI-SRP14.3-NWE2-01, Westinghouse adopted the above definition for use in Section 1.1 of Tier 1 of the AP1000 DCD. In addition, in the February 19, 2010, response Westinghouse indicated that, as the result of an extensive review of the ITAAC in Revision 17 of the AP1000 DCD, to ensure that those ITAAC utilizing the definition of the term “as-built” will be implemented consistent with the new definition, a number of changes to the ITAAC would be necessary. The NRC staff has reviewed the proposed changes to the ITAAC that use the definition of “as-built” and concludes that these changes do not adversely affect inspectability or any technical aspect of the ITAAC and that these changes are acceptable.

Verification of the proposed changes to the DCD, to include the definition of “as-built” and associated changes to the ITAAC, is CI-SRP14.3-NWE2-01.

14.3.5.2 Conclusion

The proposed change to the DCD, to include the definition of “as-built” and associated changes to the ITAAC, are acceptable pending closure of CI-SRP14.3-NWE2-01.

14.3.6 Design Acceptance Criteria/ITAAC Closure Process

In an April 1, 2010, Revision 1 response to OI-SRP3.12-EMB-4, Westinghouse proposed to include Appendix 14.3A in Tier 2, Chapter 14 of the AP1000 DCD as generic guidance for resolution of DAC in the DCD. In a proposed Tier 2 Appendix 14.3A, Westinghouse discussed the options for resolving DAC following certification of the design (1) through amendment of the DC rule, (2) through the COL application review process, or (3) through ITAAC after COL issuance. For example, for Piping DAC, Westinghouse proposed that a COL Information Item be included in the DCD to resolve

the piping design outside of the design certification amendment. Closure of piping DAC is further discussed in Section 3.12 of this SER.

The standard approach outlined above is voluntary on the part of each licensee referencing the standard AP1000 design. The process envisions an NRC review, inspection, or audit of the DAC completion that applies the “one issue, one review, one position” concept as discussed in RG 1.206, Section C.III.5, to DAC resolution for the reference (first) AP1000 plant and to subsequent AP1000 plants. A COL applicant can apply this standard approach to each of the AP1000 design areas that include DAC (i.e., piping design, digital I&C design, and HFE design). When DAC applies, the process indicates the COL applicant is to provide ITAAC and closure schedule indicating the approach to be followed for the site. The staff finds that this standard approach is consistent with the NRC policy for a design-centered-review approach and the regulations and is, therefore, acceptable pending formal submittal of a revision to the AP1000 DCD; this is CI-SRP14.3-NWE2-02.

14.4 Combined License Applicant Responsibilities

14.4.1 Test Specifications and Procedures

14.4.1.1 Introduction

In a letter dated September 22, 2006, as supplemented by letter dated May 11, 2007, Westinghouse submitted report APP-GW-GLR-037, “AP1000 Test Specifications and Procedures” (hereafter referred to as TR-71A), for NRC review and approval. Westinghouse requested closure of combined operating license (COL) Information Item 14.4-2 based on the information provided in TR-71A. Section 14.4 of the AP1000 DCD lists this COL information item and assigns the COL applicant the responsibility of providing test specifications and test procedures for preoperational and startup tests to the NRC for review and approval.

14.4.1.2 Evaluation

In Section 14.4.3 of the AP1000 DCD, Revision 15, Westinghouse assigned the COL applicant the responsibility for the development of preoperational and startup test specifications and procedures. Specifically, COL Information Item 14.4-2 states the following:

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

As part of Revision 16 to the AP1000 DCD, Westinghouse submitted TR-71A to address COL Information Item 14.4-2. TR-71A outlines the process to be used by Westinghouse to develop test specifications and draft procedures and provides a list of test specifications and test procedures to be provided in draft form by Westinghouse to the prospective COL holder.

TR-71A documents the development process for the preparation of 88 preoperational system test specifications and 59 startup test specifications, to be followed by 289 preoperational test procedures and 59 startup test procedures. However, TR-71A does not include the actual test specifications and test procedures for NRC review and approval.

The staff determined that COL Information Item 14.4-2 calls for the actual submittal of test specifications and test procedures by a COL holder to the NRC onsite inspectors for review and approval before as-built systems and plant features are tested in the field. Furthermore, the NRC inspection staff will need to review the actual test specifications and test procedures for components and systems to be tested to verify their acceptability before COL Information Item 14.4-2 can be categorized as closed. Accordingly, closure of COL Information Item 14.4-2 will be subject to the NRC's construction inspection program to allow for the necessary plant as-built inspections and walkdowns. On this basis, the staff concludes that COL Information Item 14.4-2 will remain open pending submittal of the required information by the COL holder.

The staff notes that Section 14.4.2 of Revision 17 of the AP1000 DCD contains the following statement:

The Combined License information requested in this subsection has been partially addressed in APP-GW-GLR-037 (Reference 1), and the applicable changes 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 above noted statement is inconsistent with the NRC staff's conclusion; it should be deleted from the DCD, and Information Item 14.4-2 should be modified to refer the responsibility for the information item to the COL holder. This open item was designated as OI-SRP14.2-CQVP-12.

In its September 30, 2009 response to OI-SRP14.2-CQVP-12, Westinghouse stated that it would remove reference to TR-71A in a revised version of the AP1000 DCD. Westinghouse also proposed to remove any references to TR-71A and to restore the text that would make the COL applicant responsible for providing the necessary information. The applicant included the proposed language to modify COL Information Item 14.4-2 in Enclosure 1 of the September 30, 2009 letter. The response to OI-SRP14.2-CQVP-12 is acceptable subject to confirmation (OI-SRP14.2-CQVP-12.)

14.4.1.3 Conclusion

The staff reviewed the information submitted by Westinghouse in TR-71A to close COL Information Item 14.4-2 in Section 14.4 of the AP1000 DCD, Revision 16. On the basis of this review, the staff concludes that COL Information Item 14.4-2 cannot be closed until after the issuance of the COL. Therefore, COL Information Item 14.4-2 will remain open pending revision of the DCD to reflect that required information is to be provided by

the COL holder (CI-SRP14.2-CQVP-12).

14.4.2 Conduct Of Test Program

14.4.2.1 Introduction

In a letter dated September 26, 2006, as supplemented by letters dated May 24, 2007, and June 19, 2008, Westinghouse submitted report APP-GW-GLR-038, "AP1000 Conduct of Test Program" (hereafter referred to as TR-71B), for NRC review and approval. Westinghouse requested that AP1000 COL Information Item 14.4-3 be closed based on the information provided in TR-71B. Section 14.4.3 of the AP1000 DCD lists this COL information item as follows:

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

14.4.2.2 Evaluation

In Section 14.2.3.1 of the AP1000 DCD, Revision 15, Westinghouse provided a set of administrative requirements for the conduct of the initial test program. In addition, Section 14.4 of the AP1000 DCD, Revision 15, summarized the COL applicant responsibilities associated with the development of a startup administrative manual (SAM). COL Information Item 14.4-3 required applicants referencing the Westinghouse AP1000 DCD to provide administrative controls for the conduct of the initial test program in the form of a SAM.

As part of Revision 16 of the AP1000 DCD, Westinghouse submitted TR-71B to close COL Information Item 14.4-3. In reviewing TR-71B, the staff noted that Westinghouse provided a summary overview of the administrative process and program controls to be utilized in the conduct of the AP1000 Startup Test Program at a licensed AP1000 operational plant site.

The staff also noted that TR-71B outlined basic functional relationships, responsibilities, activities, authority, and principles of conduct for the Joint Test Working Group and other organizational groups. Additionally, TR-71B presented a general and informative description of responsibilities and activities related to the testing of power plant equipment in the period between system turnover and plant acceptance.

On the basis of its review of TR-71B, the staff identified several areas that required additional information as presented in RAI-SRP14.2-CQVP-01 through 8 and 11. To this end, the staff requested Westinghouse to enhance the proposed program description and amplify the administrative requirements contained in TR-71B consistent with the guidance contained in RG 1.68, Revision 3, issued March 2007, and Section 14.2, "Initial Plant Test Program—Design Certification and New License Applicants," of the Standard Review Plan (SRP), Revision 3, issued March 2007. Specifically, the staff requested that Westinghouse provide not only a list of activities that will be controlled during the

conduct of the initial test program, but also a description of how these activities will be implemented and controlled. The staff also requested that Westinghouse justify the use of references to other Westinghouse documents in TR-71B that were not currently under review by the staff. In addition, the staff provided Westinghouse a set of administrative controls that needed to be described as part of the development of the AP1000 SAM.

In its June 19, 2008, response, Westinghouse provided Revision 2 of TR-71B. The staff reviewed Revision 2 of TR-71B and noted that Westinghouse had revised the organizational structure in charge of the initial test program and enhanced the description of the administrative controls for the startup testing phase of the initial test program. Westinghouse also provided partial responses to some of the RAIs and, in certain areas, Westinghouse did not provide a response at all. Westinghouse stated in its response letter that Revision 2 of TR-71B incorporated the responses to the RAIs and that the initial test program was developed in conformance with RG 1.68, Revision 2, issued August 1978, and Section 14.2 of the SRP, Revision 2, issued July 1981, which is the certified design regulatory basis.

Because COL applicants are incorporating TR-71B by reference in their applications, the staff determined that the Westinghouse responses created a conflict between the information provided by Westinghouse and that required to be submitted by COL applicants. In addition, the staff determined that COL Information Item 14.4-3 calls for the actual submittal of a SAM describing the methods and practices that would govern the initial test program at AP1000 sites. This SAM should provide controls for the conduct of the initial test program consistent with the general criteria in RG 1.68, Revision 3, and Section 14.2 of the SRP, Revision 3. On this basis, the staff determined that the existing content and structure of TR-71B does not meet the guidance applicable to COL applicants.

Since Westinghouse has not provided the necessary information consistent with COL Information Item 14.4-3, the staff concludes that COL Information Item 14.4-3 will remain open in the AP1000 DCD pending submittal of the required information by COL applicants referencing the AP1000 design.

The NRC staff notes that Section 14.4.3 of Revision 17 of the AP1000 DCD includes the following statement:

The Combined License information requested in this subsection is partially addressed in APP-GW-GLR-038, (Reference 2), and the applicable changes are incorporated into the DCD.

The program management description for the process to develop the AP1000 Startup Administrative Manual is delineated in APP-GW-GLR-038, (Reference 2).

The above-noted statement is inconsistent with the NRC staff's conclusions; it should be deleted from the DCD, and Information Item 14.4-3 should be restored to the original combined license information item commitment noted in Section 14.4.3 of Revision 15 of the AP1000 DCD. This was Open Item OI-SRP14.2-CQVP-13.

In its September 30, 2009 response to OI-SRP14.2-CQVP-13, Westinghouse stated that it would remove reference to TR-71B in a revised version of the AP1000 DCD. Westinghouse also proposed to remove any references to TR-71B and to restore the text that would make the COL holder responsible for providing the necessary information. Westinghouse included the proposed language to modify COL Information Item 14.4-3 in Enclosure 1 of the September 30, 2009 letter. The response to OI-SRP14.2-CQVP-12 is acceptable subject to confirmation (CI-SRP14.2-CQVP-13.)

14.4.2.3 Conclusion

On the basis of its review of TR-71B, the staff concludes that it lacks the elements that are necessary for a SAM. Furthermore, it is inconsistent with the guidance provided in RG 1.68, Revision 3, and Section 14.2, Revision 3, of the SRPlan. Therefore, COL Information Item 14.4-3 will remain open in the AP1000 DCD (CI-SRP-14.2-CQVP-13) .

14.4.3 First-Plant-Only and Three-Plant-Only Tests

14.4.3.1 Introduction

In a letter dated June 5, 2006, Westinghouse submitted AP1000 Technical Report 6, "AP1000 As-Built COL Information Items" (hereafter referred to as TR-6), for NRC review and approval. TR-6 identified COL information items that required as-built information or conditions to be completed.

In its request, Westinghouse proposed a change to COL Information Item 14.4.6, "First-Plant-Only and Three-Plant-Only Tests," in order to clarify that the test requirements apply to a COL holder rather than a COL applicant.

14.4.3.2 Evaluation

COL Information Item 14.4.6 is associated with tests that must be completed only on the first plant or the first three plants. For COL Information Item 14.4.6, the following revision was underlined in TR-6:

[The COL applicant or holder for the first plant and the first three plants will perform the tests listed in subsection 14.2.5. For subsequent plants, the COL applicant or licensee shall either perform the tests listed in subsection 14.2.5 or shall provide a justification that the results of the first-plant-only tests or first-three-plant tests are applicable to subsequent plants.]*

The Combined License holder will perform the tests or provide the information defined above prior to fuel load.

The staff concluded that a COL holder can only perform these tests after the plant is essentially complete. The staff found this change to COL Information Item 14.4.6

acceptable for five preoperational tests of the nine tests described in DCD Section 14.2.5, "Utilization of Reactor Operating and Testing Experience in the Development of Test Program." However, the staff also found that the following tests described in DCD Section 14.2.5 are performed after initial fuel load and during the low-power and power ascension test phase:

- Section 14.2.10.3.6, "Natural Circulation"
- Section 14.2.10.3.7, "Passive Residual Heat Removal Heat Exchanger"
- Section 14.2.10.4.6, "Rod Cluster Control Assembly Out-of-Bank Measurements"
- Section 14.2.10.4.22, "Load Follow Demonstration"

On the basis of this finding, the staff requested that Westinghouse revise COL Information Item 14.4-6 to state that the COL holder will perform these tests after initial fuel load and during the low-power and power ascension test phase of the initial test program.

In a February 1, 2007, letter to the NRC staff, Westinghouse revised TR-6 and COL Information Item 14.4-6 to read as follows:

The Combined License holder(s) for the first AP1000 plant (or first three plants) available for testing will perform the tests defined during the preoperational and startup testing as identified in Subsections 14.2.9 and 14.2.10. Combined License holders referencing the results of the tests will provide the report as necessary. The schedule for providing this information will be provided prior to preoperational testing.

The change proposed by Westinghouse clarifies the COL holder responsibility, in contrast to the previous assignment of responsibility to either the COL applicant or holder, for performing first-plant-only or three-plant-only tests or providing suitable justification for not performing these tests before the start of preoperational testing. On this basis, the staff determined that this revision to DCD COL Information Item 14.4.6 is acceptable.

14.4.3.3 Conclusion

The staff reviewed the information submitted by Westinghouse in TR-6 and concluded that the changes proposed by Westinghouse adequately clarified the timing of the testing of first-plant-only and three-plant-only tests. On the basis of this review, the staff concludes that the changes proposed by Westinghouse are acceptable.