

CCNPP3COLA PEmails

From: John Rycyna
Sent: Friday, October 17, 2008 1:55 PM
To: Wrobel, George
Cc: CCNPP3COL Resource; Juan Peralta; Samantha Crane; Joseph Colaccino; Michael Miernicki
Subject: RAIs 20, 21, 22, 23, 24
Attachments: RAI No 22 CQVP 1199.doc; RAI No 23 CQVP 1188.doc; RAI No 24 CQVP 1153.doc; RAI No 20 CQVP 1203.doc; RAI No 21 CQVP 1202.doc

George,

Attached please find the subject requests for additional information (RAI). Drafts of the RAIs were provided to you on October 1 and October 2, 2008. No conference call was requested to discuss these RAIs. The schedule we have established for review of your application assumes technically correct and complete responses within 30 days of receipt of RAIs. For any RAIs that cannot be answered within 30 days, it is expected that a date for receipt of this information will be provided to the staff within the 30 day period so that the staff can assess how this information will impact the published schedule.

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From: John Rycyna

Created By: John.Rycyna@nrc.gov

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Tracking Status: None
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"Wrobel, George" <George.Wrobel@unistarnuclear.com>
Tracking Status: None

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Files	Size	Date & Time
MESSAGE	785	10/17/2008 1:54:49 PM
RAI No 22 CQVP 1199.doc		32762
RAI No 23 CQVP 1188.doc		33274
RAI No 24 CQVP 1153.doc		35322
RAI No 20 CQVP 1203.doc		32250
RAI No 21 CQVP 1202.doc		32762

Options

Priority: Standard
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Reply Requested: No
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Request for Additional Information No. 22 Revision 0
10/17/2008

Calvert Cliffs Unit 3
UniStar
Docket No. 52-016

SRP Section: 14.02 - Initial Plant Test Program - Design Certification and New License Applicants
Application Section: 14.2

QUESTIONS for Quality and Vendor Branch 1 (AP1000/EPR Projects) (CQVP)

14.02-8

Standard Review Plan (SRP, NUREG-0800) Section 14.2.II.3.A.ii, concerning acceptance criteria for combined license (COL) and operating license applicants, "Management Organizations," states that "[t]he applicant should provide (1) the organizational descriptions for any augmenting organizations or other personnel who will manage or execute any phase of the test program, and (2) the responsibilities, interfaces, and authorities of the principal participants."

The applicant's FSAR, Section 14.2.2 "Organization and Staffing," states in part that "[t]he plant operating, maintenance, and engineering personnel are utilized to the extent practicable during the Startup Test Program. The plant staff operates permanently installed and powered equipment for Phases I through IV and subsequent system tests. Plant personnel such as instrument and controls, chemistry, computer, radiation protection, and maintenance personnel are used to perform tests and inspections in the areas in which they will primarily work during plant operation." Section 13.1 of the applicant's FSAR, "Organizational Structure of Applicant," provides some details on the roles and responsibilities of plant staff.

The applicant's FSAR in sections 14.2.2 and 13.1 does not specify the responsibilities, interfaces, and authorities of the principal participants of the plant staff as they relate to the initial test program. The NRC staff requests that the applicant supplement section 14.2.2 of its FSAR to include further details on the responsibilities, interfaces, and authorities of the principal participants of the plant staff as they relate to the initial test program as described in the SRP, or to justify an alternative.

Request for Additional Information No. 23 Revision 0
10/17/2008

Calvert Cliffs Unit 3
UniStar
Docket No. 52-016

SRP Section: 14.02 - Initial Plant Test Program - Design Certification and New License Applicants
Application Section: 14.2.8

QUESTIONS for Quality and Vendor Branch 1 (AP1000/EPR Projects) (CQVP)

14.02-9

Standard Review Plan (SRP, NUREG-0800) Section 14.2.II.3.G.i, concerning acceptance criteria for combined license (COL) and operating license applicants, "Utilization of Reactor Operating and Testing Experiences in the Development of the Test Program," states that "[t]he applicant should provide a summary of the principal conclusions or findings from the review of operating and testing experiences at other reactor facilities and their effect on the test program. This review should recognize categories of reportable, repeatedly experienced occurrences and other operating experiences that could potentially impact the performance of the test program."

Section 14.2.8 of the applicant's FSAR incorporates, by reference, Section 14.2.8 of the U.S. EPR FSAR, which states that "[t]he design of the U.S. EPR is an evolutionary design. As such, the experience gained from previous successful startups is factored into the initial test program. This information reflects both AREVA NP operating and test experience and industry wide experience concerning pressurized water reactors. A summary will be developed to provide conclusions from this review and the effects on the test program."

The applicant's FSAR, however, does not state that the summary or review will contain recognized categories of reportable, repeatedly experienced occurrences and other operating experiences that could potentially impact the performance of the test program. The NRC staff requests that the applicant supplement the discussion in section 14.2.8 of its FSAR to provide more details with respect to testing experiences at other reactor facilities and categories of reportable, repeatedly experienced occurrences and other operating experiences that could potentially impact the performance of the test program.

Request for Additional Information No. 24 Revision 0
10/17/2008

Calvert Cliffs Unit 3
UniStar
Docket No. 52-016

SRP Section: 14.02 - Initial Plant Test Program - Design Certification and New License Applicants
Application Section: 14.2

QUESTIONS for Quality and Vendor Branch 1 (AP1000/EPR Projects) (CQVP)

14.02-10

Standard Review Plan (NUREG-0800) Section 14.2.II.3.i, paragraph F concerning combined license (COL) and operating license applicants, "Review, Evaluation, and Approval of Test Results," states that the COL applicant "should develop procedures that will govern the review, evaluation, and approval of test results for each phase of the test program. Specific procedures should be implemented to ensure notification of responsible organizations, such as design organizations, when test acceptance criteria are not met and specific controls have been established to resolve such problems."

Section 14.2.5 of the applicant's FSAR, "Review, Evaluation, and Approval of Test Results," does not provide a method for the review, evaluation, and approval of test results for each phase of the Initial Test Program before proceeding to the next phase. In addition, Section 14.2.5 of the FSAR does not provide for the development of procedures to ensure notification of responsible organizations, such as design organizations, when test acceptance criteria are not met and specific controls have been established to resolve such problems.

Consistent with SRP Section 14.2, please revise section 14.2.5 of the FSAR to include the provisions for the development of procedures to control the review, evaluation, and approval of test results for each phase of the test program, and for the development of procedures to ensure notification of responsible organizations, such as design organizations, when test acceptance criteria are not met and that specific controls have been established to resolve such problems, or justify an alternative.

14.02-11

Standard Review Plan (NUREG-0800) Section 14.2.II.3 paragraph F.ii concerning combined license (COL) and operating license applicants, "Review, Evaluation, and Approval of Test Results," states that "[b]efore proceeding with testing, the applicant should provide controls relating to

- (1) the methods and schedules for approval of test data for each major phase, and
- (2) the methods used for initial review of individual parts of multiple tests (e.g., hot functional testing)."

Section 14.2.5 of the applicant's FSAR, "Review, Evaluation, and Approval of Test Results," does not provide the specific methods and schedules for approval of test data for each major phase, nor does it provide the methods used for initial review of individual parts of multiple tests (e.g., hot functional testing).

The NRC staff requests that the applicant revise section 14.2.5 of the FSAR to include the methods and schedules for approval of test data for each major phase, and the methods used for initial review of individual parts of multiple tests, or to justify an alternative.

14.02-12

Standard Review Plan (NUREG-0800) Section 14.2.II.3, paragraph F.iv concerning combined license (COL) and operating license applicants, "Review, Evaluation, and Approval of Test Results," states that the COL applicant "should include provisions to allow design organizations to participate in the resolution of design-related problems that result in, or contribute to, a failure to meet test acceptance criteria."

The applicant is asked to clarify what provisions in the application, either in Section 14.2.5.1 of the applicant's FSAR, "Review, Evaluation, and Approval of Test Results; Procedure Review and Evaluation" or elsewhere, ensure the involvement of design organizations in the resolution of design-related problems that result in, or contribute to, a failure to meet test acceptance criteria, and to revise Subsection 14.2.5.1 accordingly or justify an alternative.

Request for Additional Information No. 20 Revision 0
10/17/2008

Calvert Cliffs Unit 3
UniStar
Docket No. 52-016

SRP Section: 14.02 - Initial Plant Test Program - Design Certification and New License Applicants
Application Section: 14.2

QUESTIONS for Quality and Vendor Branch 1 (AP1000/EPR Projects) (CQVP)

14.02-6

Regulatory Guide (RG) 1.68, Section C.4, "Procedures," states that "each test procedure should include acceptance criteria that account for the uncertainties used in transient and accident analyses." RG 1.68, Appendix C, Section 1.f, "Acceptance Criteria," provides that "[t]he test procedure should clearly identify the criteria against which the success or failure of the test will be judged, and should account for measurement errors and uncertainties. In some cases, these will be qualitative criteria. Where applicable, quantitative values with appropriate tolerances should be designated as acceptance criteria."

The applicant's FSAR, Section 14.2.3.4, "Acceptance Criteria," does not specifically address these provisions. Please revise Section 14.2.3.4 to state that test acceptance criteria will account for measurement errors and uncertainties used in the transient and accident analyses, or justify an alternative.

Request for Additional Information No. 21 Revision 0
10/17/2008

Calvert Cliffs Unit 3
UniStar
Docket No. 52-016

SRP Section: 14.02 - Initial Plant Test Program - Design Certification and New License Applicants
Application Section: 14.2

QUESTIONS for Quality and Vendor Branch 1 (AP1000/EPR Projects) (CQVP)

14.02-7

Section 14.2.II.3.A of the Standard Review Plan (SRP, NUREG-0800) "Initial Test Program [ITP] Administrative Procedures," concerning design certification applications states that "[t]he [design certification] applicant should provide general guidance to control ITP activities, including administrative controls that will be used to develop, review, and approve individual test procedures, coordination with organizations involved in the test program, participation of plant operating and technical staff, and review, evaluation, and approval of test results."

The applicant's FSAR incorporates Section 14.2.1.1.1 of the U.S. EPR Design Certification application FSAR, "Construction Activities," which states in part that "[s]pecific construction test requirements shall be established in accordance with the site administrative procedures." However, neither the U.S. EPR Design Certification application nor the applicants combined license application provide any details on the site specific procedures that will govern construction activities of the ITP.

The NRC staff requests that the applicant provide more information on the site specific procedures that will govern construction activities of the ITP. Specifically, the NRC requests that the applicant provide general information in the areas of functions and responsibilities of the personnel performing construction activities, conduct and review of construction testing procedures, approval authority and turnover of systems to the startup organization, and the interactions between the personnel performing the construction activities and the startup organization.