June 25, 2010

APPLICANT: AREVA NP, Inc.

PROJECT: U.S. EPR Design Certification Application

SUBJECT: MEETING WITH AREVA NP, INC., TO OBTAIN CLARIFICATION ON FORTHCOMING RESPONSE TO REQUEST FOR INFORMATION (RAI) NUMBER 286, QUESTION 7.08-9 FOR INSTRUMENTATION AND CONTROLS

On April 19, 2010, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff and representatives of AREVA NP, Inc. (AREVA). The April 19, 2010, meeting was held at the NRC offices at 11555 Rockville Pike, Room O4 –B06 in Rockville, Maryland. The purpose of this meeting was to allow AREVA NP to present its proposed response to Request for Additional Information (RAI) 286, Question 7.08-9. The meeting notice with the agenda can be found in the Agencywide Documents Access and Management System (ADAMS) Accession No. ML100910049. The agenda included designated times for public interactions with the staff. The Enclosure lists the meeting attendees. Teleconferencing was offered in the meeting notice but no members of the public availed themselves of that opportunity for this meeting.

The meeting started at 1:05 p.m. (Eastern Daylight Savings Time). After the opening remarks and introductions of the attendees, meeting ground rules and logistics were announced. The staff then briefly reviewed the agenda and introduced the topic of discussion, RAI 286, Question 07.08-9, which reads as follows and was presented on the initial AREVA NP presentation slides:

> Further justify why the Process Information and Control System (PICS) does not need to meet 10 CFR Part 50, Appendix A, General Design Criteria (GDC) 1.
>
> GDC 1 requires, in part, that structures, systems, and components important to safety shall be design, fabricated, erected, and tested to quality standards commensurate with the importance of the safety functions to be performed. The staff identified throughout Chapter 7 of the U.S. EPR Final Safety Analysis Report (FSAR), that PICS is the system that the operators will normally use to monitor and control plant safety systems during all conditions of plant operation, "including normal operation, anticipated operational occurrences, postulated accidents, and beyond design basis events. Additionally, PICS provides functions that address the requirements of General Design Criterion (GDC) 13 and GDC 19 (e.g., post-accident monitoring), as well as diverse actuation functions provided there is a software common-cause failure. **As such, the staff sees that PICS is important to safety systems and is required to meet GDC 1.** The staff requests that information be provided as to the quality standards that PICS will designed and tested. As one example, if PICS is credited for diverse actuation, AREVA should address the applicability of Generic Letter 85-06 and its enclosure as one potential standard/guidance. AREVA NP

should also describe compliance to GDC 1 for systems that support PICS and enable its proper operation, such as the plant data network.

AREVA NP presented their understanding of the licensing impacts that would arise as a result of an application of GDC 1 to non-safety equipment that are identified by the staff as being important to safety. The presentation is publically available as ADAMS Accession No. ML101110070.

The presentation raised the following points and presented arguments to address:

1. A Potential for extension of GDC 1 to all non-safety related Instrumentation & Controls systems
2. A Potential application of GDC 2, GDC 3, and GDC 4 to all non-safety-related I&C systems
3. The introduction of inconsistencies between the Chapter 3 classification of safety-related structures systems and components and a Chapter 7 application of GDC 1 that did not align with standardized classification methodology
4. The introduction of inconsistencies between the U.S. EPR and other approved design precedents
5. The implication that PICS is relied on to perform safety functions

Discussion occurred during the presentation between the staff and AREVA NP regarding the information contained on the presentation slides

A break was called at 2:15 p.m. The one member of the public in attendance had no questions for the staff. After a 15 minute break, the meeting resumed.

The staff then made a short presentation of the basis for their determination that PICS is important to safety. The staff's presentation is publically available as ADAMS Accession No. ML101110071.

The Office of the General Counsel (OGC) explained that, as provided in 10CFR Part 50 Appendix A, the GDC do apply to SSC's that are important to safety.

Regarding the AREVA NP argument that GDC 1 only applied to systems that are determined to have safety functions (and therefore be would be classified as Safety-Related), OGC position confirmed that, although the issue has been contentious for many years, the agency's position is well documented that a staff finding of "important to safety" was not restricted to only those SSC's determined to have credited safety functions.

At the time of meeting adjournment at 3:40 p.m. (Eastern Daylight Savings Time), the member of the public was given an opportunity to interact with the NRC staff, and again stated that there were no questions.

PATH FORWARD:
AREVA NP was requested to provide their response to this RAI by addressing the substantive issue; the ability of augmented quality controls being placed on the PICS system (including the Plant Data Network portion) to provide the necessary degree of reliability to meet the guidance documents.

The staff will continue to define what is necessary for the applicant's response to have fully met their expectation with respect to GDC 1, given that the important to safety determination implies a lesser level of commitment than a safety-related system would require.

If this determination identifies that full commitment to GDC 1 (and/or GDC 2, GDC 3, GDC 4) is not required, the staff will consider addressing that acceptable level of compliance with GDC 1 within the staff's Safety Evaluation Report development.

A determination will still need to be made as to whether this approach is an acceptable regulatory approach. If not, Design Engineering's position in this regard will have to be applied consistently to all designs currently under review and approval.

FOLLOW-UP ITEMS

Division of Engineering and Division of New Reactor Licensing need to jointly assess the generic implications of the perceived requirement for full commitment to GDC 1 for these types of systems. It is understood that the other design centers have not established this need at this time.

AREVA NP will advise the Lead Project Manager of the proposed timing for submission of the amplifying information and propose a date for the staff and AREVA NP to preview the forthcoming submission via a telephone conference or a Go-To-Meeting Environment.

General Discussion

A separate item of discussion was introduced at the end of the meeting regarding the use of draft NUREG/CR-7007, "Diversity Strategies for Nuclear Power Plant Instrumentation and Control Systems," analytical techniques for quantifying the degree of diversity provided by any design. AREVA NP had not attempted to use the scoring technique, but was aware that in performing the Best Estimate analysis for their D3 submittal, there were some issues that had to be resolved in order for their analysis to be run. The same factors could influence a scoring evaluation. AREVA NP was advised to look over the NUREG guidance themselves with an eye towards the applicability of the quantitative techniques described therein.

Questions regarding this meeting can be directed to Michael Canova at 301-415-0737 or via email at michael.canova@nrc.gov.

Sincerely,

/RA/

Michael Canova
Project Manager
U.S. EPR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket No.: 52-020

Enclosures:
1. List of Attendees
2. Meeting Handouts and Slides: ADAMS Accession No's ML101110070 and ML101110071

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DISTRIBUTION:

PUBLIC
List of NRC Attendees
DNRL/NARP R/F
JMcLellan, NRO
RidsNroDnrlNarpResource
RidsAcrsAcnwMailCenterResource
RidsOgcMailCenterResource

ADAMS ACCESSION Number: ML101200613 **NRO-002**

OFFICE	DNRL/NARP: PM	DNRL/NARP: LA	NRO/DE/ICE1	OGC	DNRL/NARP: PM
NAME	MCanova	JMcLellan	TJackson	JBiggins	GTesfaye
DATE	06/01/10	06/9/10	06/10/10	06/22/10	06/25/10

OFFICIAL RECORD COPY

ATTENDANCE SHEET

MEETING WITH AREVA NP TO DISCUSS I&C RAI 286 Question 7.08-9
Monday, April 19, 2010
1:00 p.m. - 4:00 p.m.

	Name	Organization	Contact Info (phone/e-mail)
1.	Deirdre Spaulding-Yeoman	NRO/ICE1	deirdre.spaulding@nrc.gov
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3.	Joseph Colaccino	NRO/DNRL/BC	joseph.colaccino@nrc.gov
4.	Lawrence Chandler	Morgan Lewis	lchandler@morganlewis.com
5.	Chris Doyel	AREVA NP	704-805-2398
6.	Dennis Budzik	AREVA NP,	704-805-2287
7.	James Biggins	NRC/OGC	301-415-6305
8.	Christopher Hair	NRC/OGC	301-415-2174
9.	Gordon Clefton	NEI	202-739-8086/ GAC@nei.org
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19.	Michael Canova	NRO/DNRL/NARP	301-415-0737

ENCLOSURE