WBN2Public Resource

From: Wiebe, Joel
Sent: Wednesday, August 25, 2010 9:05 AM
To: 'Bill Crouch'
Subject: Preliminary Additional RAIs Chapters 11 and 12

The numbering scheme is consistent with the numbering scheme of the original requests.

Chapter 11

RAI #11.4-1

The response to question 11.4-1, the July 31, 2010, submittal, states that "the Steam Generator (SG) Blowdown Liquid Sample Monitor was isolated in Unit 1 by DCN 29903. Monitor RE-90-124 was to be used solely to determine which SG has a leak during an SG Tube Rupture event. In place of the monitor, grab samples provide a quicker determination." Describe how the routine Watts Bar Unit 2 steam generator blowdown will be monitored for radiological releases.

Chapter 12

RAI # 5.b:

Amendment 88 indicated that the normal operating source term was based on ANSI 18.1 1984 (rev. 1). Amendment 97 revised this description to make a distinction between the normal operating design source term (now referencing ANSI 18.1 rev 0, 1976) and the "Current operational radiation levels," based on ANSI 18.1 Rev.1. Clarify and explain the purpose of this distinction.

RAI # 6:

The response to RAI # 6 is unresponsive to the request. Provide layout drawings indicating access and egress routes to vital areas of the plant and their associated radiation zones under accident conditions.

RAI # 7:

The response to RAI # 7 is unresponsive to the request. In lieu of layout drawings as requested (consistent with Section 12.3.1 of Regulatory Guide 1.70), identify which of the following radiation protection facilities are common to Watts Bar Unit 1 and indicate whether they are sized and situated properly to support two operating units. The facilities are;

1. Controlled access areas,
2. personnel and equipment decontamination,
3. contamination control areas,
4. in plant traffic patterns to radiologically controlled areas,
5. health physics facilities (including dosimetry issue and maintenance, respiratory protection issue and maintenance, in-vivo and in-vitro bioassay, protective clothing and radiation survey instrument issue, Radiation Protection Manager and technical staff office/work space),
6. onsite laboratory for analysis of chemical and radiological samples, and
7. radiological counting room.

For each of these facilities not shared with Unit 1, demonstrate they are sized and situated properly to support Unit 2 operation.

RAI # 8:

Amend. 97 changed section 12.3.4.1.3 (page 12.3-19) to revise frequency of Channel Operability Tests (COT) from quarterly to "periodically." The response to the question concerning the basis for setting the COT frequency refers to the TS Bases SR 3.3.6.4 (which states every "92 days") and the Unit 1 FSAR Change package 1617, which was attached. However, the change package 1617 clearly states that the intent of the change is to allow a COT interval of 18 months, the acceptability of which is claimed to be demonstrated by the enclosed calculation WBN-EEB-EDQ 1090-99005.

The staff position is that WBN-EEB-EDQ 1090-99005 does not provide an adequate basis for increasing the COT interval from 3 to 18 months. The calculation does not pass its own acceptance criteria since one of the 41 randomly selected samples was found outside the "as left" response band (see #4 below). Since the data population used was limited to the 1998/1999 surveillances, this calculation only demonstrates that there is a 95/95 confidence that any of the other 33 monitor 1998/1999 test results will also be within the "as left" response band, even if the one monitor found outside the band is ignored. To demonstrate that these monitors will be within the "as left" band over an extended period of time (e.g., 18 months) more than six consecutive COT results for each monitor (preferably covering the entire Unit 1 operating history - see #2 below) would have to be included in the study population. Provide a calculation based on an appropriate statistical method and comprehensive data set to demonstrate monitor stability over an 18 month COT interval.

The following issues also need additional clarification.

1. Provide a copy of G29 P.S. 4M.4.1 (R6) and demonstrate that it is an acceptable statistical methodology for evaluating monitor testing frequency.
2. The data used in this calculation is limited to a single surveillance (slice in time – circa 1998/1998) for each monitor of interest. No justification for the restricted data selection is given. It would be more appropriate to use the entire COT history for each monitor for this evaluation.
3. The "Random Selection" of 41 monitors from the population of 74 monitors, as depicted in Table 1, doesn't appear to be random at all.
4. The last paragraph on page 6 of the calculation indicates that in order to demonstrate "with a 95/95 probability and confidence that the attribute of interest is indicative of the population," all 41 randomly selected surveillances must have met the acceptance criteria (e.g., that is that the monitors "as found" are within the surveillance "as left" tolerance band). However, the text at the bottom of page 7 indicates that one of the 41 monitors was not found within the "as left" band. Justify why this data point which was slightly outside the acceptance criteria was judged to be within the criteria.
5. It is unclear what the current COT interval is for the "raw water system and non VX-252 local indicators." What is Alternate Review (Ref. 7)?

RAI # 10:

The response to Question # 10 subparts a., c., and e., do not clearly indicate the capabilities of the airborne monitoring system as revised by Amendment 97. Consistent with the acceptance criteria for section 12.3.4.b, of the Standard Review Plan (NUREG 0800), verify that the airborne radioactivity monitoring system for Watts Bar Unit 2 is capable of the following;

1. The monitoring system should be capable of detecting ten MPC-hours increase in particulate and iodine radioactivity from any compartment which has a possibility of containing airborne radioactivity and which normally may be occupied by personnel.
2. Each monitor location has a local audible alarm (and, or visual alarms for monitors located in high noise areas) and variable alarm set points.
3. Readout and annunciation of each monitor are provided in the control room.
4. Emergency power is initiated after loss of offsite power.

RAI # 13:

The first part of this response is acceptable. However, the response goes on to modify the stated position with a discussion of a commitment to ANSI/ANS 3.1-1981. The following text in the response, listed as paragraph

C. from SPP-5, is not completely consistent with ANSI/ANS 3.1-1981, and is not acceptable to the staff. Specifically, contrary to the ANSI criteria, paragraph C.

1. does not specify that the five years of applied radiation protection experience be professional experience, and
2. allows individuals that do not meet the qualification criteria to be temporarily assigned to fill the RPM position.

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