ClinchRiverESPHFNPEm Resource

From: Sutton, Mallecia
Sent: Monday, March 5, 2018 2:20 PM
To: Schiele, Raymond Joseph
Cc: Cook, Christopher; Mazaika, Michael; Quinlan, Kevin; Colaccino, Joseph; Fetter, Allen; Harvey, Brad; Akstulewicz, Frank
Subject: Met: Feedback on Sections 2.0 and 2.3.1 Rev 1 SSAR
Attachments: Feedback on Clinch River ESP SSAR Rev 1.pdf

Ray,

As discussed, attached are some suggested edits related to Rev 1 SSAR to be discussed during our 3pm call this afternoon. If you have any questions, please don't hesitate to contact me.

Thanks
Mallecia

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RHM/RMET Feedback on
Sections 2.0 and 2.3.1 of Revision 1 to the Clinch River ESP SSAR

SSAR Table 2.0-1

1. Winter Precipitation (Sheet 1 of 5)

   a. 100-Year Snowpack – Delete this entry from Table 2.0-1 as it is discussed in SSAR Subsection 2.3.1.3.6.2 as one of the four elements used to determine the Normal Winter Precipitation Event consistent with DC/COL-ISG-007.

   b. 48-hour Probable Maximum Winter Precipitation (PMWP) - Delete this entry from Table 2.0-1 as it is redundant to the Table 2.0-1 entry "Extreme Liquid Winter Precipitation Event."

   c. Normal Winter Precipitation Event – Change the description of this site characteristic to read:

      The maximum ground level weight of the 1) 100-year return snowpack (snow cover), 2) historical snowpack (snow cover), 3) 100-year return 2-day snowfall event, or 4) historical maximum 2-day snowfall event.

   d. Extreme Frozen Precipitation Event –

      i. In order to be consistent with the terminology in DC/COL-ISG-007, change the title of this site characteristic to read:

         Extreme Frozen Winter Precipitation Event

      ii. Change the description of this site characteristic to read:

         The maximum ground level weight of the 1) 100-year return 2-day snowfall event or 2) historical maximum 2-day snowfall event

   e. Extreme Liquid Precipitation Event –

      i. In order to be consistent with the terminology in DC/COL-ISG-007, change the title of this site characteristic value to read:

         Extreme Liquid Winter Precipitation Event

      ii. Change this site characteristic value to read "*23.5 in*"

      iii. Change the description of this site characteristic value to read:

         The extreme liquid winter precipitation event is defined as the theoretically greatest ground-level depth of precipitation (in inches of water) for a 48-hour period that is physically possible over a 25.9 square kilometer (10 square mile) area at a particular geographical location during those months with the historically highest snowpacks.

2. Site Characteristic Ambient Air Temperatures (Sheet 3 of 5)

    a. 0% Annual Exceedance Values – Confirm and, if so, clarify in Table 2.0-1 as to whether the 0% annual exceedance dry-bulb and coincident wet-bulb temperatures, the non-coincident wet-bulb temperature, and the minimum dry-bulb temperature represent historical limits excluding peaks less than 2 hours, as specified in EPRI's Advanced Light Water Reactor Utility Requirements Document (see Table 1.2-6, "Envelope of ALWR Plant Site Design Parameters," in Volume 2, Revision 8).

    b. Coincident Wet-Bulb Values – Define what the coincident wet-bulb temperature values represent (e.g., the overall maximum wet-bulb temperature, the mean of the wet-bulb temperature, or an estimated wet-bulb temperature value assumed to be coincident with the indicated dry bulb temperature).

SSAR Subsection 2.3.1.3.6.2

1. Para. 5, Sent. 1 – Indicates that the U.S. Snow Climatology data base was the resource used to determine the 100-year return period 48-hour (two-day) snowfall event for the Oak Ridge and Knoxville observing stations. The U.S. Snow Climatology data base has not been available for several years. Other referenced on-line data bases included the date the information was accessed. Provide the date that the U.S. Snow Climatology data base was accessed for this information.

SSAR Subsection 2.3.1.4

1. The following site characteristics are described as being calculated, but their values are not presented in SSAR Table 2.0-1 or any other table in the SSAR. Please explain the intent of stating that the following site characteristics are calculated but not providing the corresponding values in the SSAR:

    a. dry-bulb temperatures at 5% and 95% exceedance levels (note: these values have recently been added to the NuScale list of site parameter values; see NuScale's response to eRAI 9186, Question 02.03.01-6, ML18044A695)

    b. coincident wet-bulb temperatures at 5% and 100% exceedance levels (note: the 5% value has recently been added to the NuScale list of site parameter values; see NuScale's response to eRAI 9186, Question 02.03.01-6, ML18044A695)

    c. non-coincident wet-bulb temperature at 5%, 95%, 98%, 99%, and 99.6% exceedance levels

    d. 100-year return minimum wet-bulb temperature