

HarrisRAIsPEm Resource

From: Hughes, Brian
Sent: Wednesday, November 25, 2009 9:16 AM
To: HarrisRAIsPEm Resource
Subject: HAR-RAI-LTR-073 RELATED TO SRP SECTION 02.03.01 REGIONAL CLIMATOLOGY
FOR THE SHEARON HARRIS UNITS 2 AND 3 COLA
Attachments: HAR-RAI-LTR-073.doc

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Subject: HAR-RAI-LTR-073 RELATED TO SRP SECTION 02.03.01 REGIONAL
CLIMATOLOGY FOR THE SHEARON HARRIS UNITS 2 AND 3 COLA
Sent Date: 11/25/2009 9:16:26 AM
Received Date: 11/25/2009 9:16:27 AM
From: Hughes, Brian

Created By: Brian.Hughes@nrc.gov

Recipients:
"HarrisRAIsPEm Resource" <HarrisRAIsPEm.Resource@nrc.gov>
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November 25, 2009

James Scarola
Senior Vice President and
Chief Nuclear Officer
PO Box 1551
411 Fayetteville Street Mall
Raleigh NC 27602

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 073 RELATED TO
SRP SECTION 02.03.01 - REGIONAL CLIMATOLOGY FOR THE SHEARON
HARRIS UNITS 2 AND 3 COMBINED LICENSE APPLICATION

Dear Mr. Scarola:

By letter dated February 18, 2008, Progress Energy submitted its application to the U. S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two AP1000 advance passive pressurized water reactors pursuant to 10 CFR Part 52. The NRC staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

To support the review schedule, you are requested to respond within 30 days of the date of this letter. If changes are needed to the final safety analysis report, the staff requests that the RAI response include the proposed wording changes.

JScarola

If you have any questions or comments concerning this matter, you may contact me at 301-415-6582.

Sincerely,

/RA/

Brian Hughes, Lead Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-022
52-023

Enclosure:
Request for Additional Information

CC: see next page

JScarola

If you have any questions or comments concerning this matter, you may contact me at 301-415-6582.

Sincerely,

/RA/

Brian Hughes, Lead Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-022
52-023

ERAI Tracking No. 3883

Enclosure:
Request for Additional Information

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NAME	KQuinlan*	SSamaddar*	BHughes*	BHughes
DATE	10/16/09	10/16/09	10/20/09	11/24/09

*Approval captured electronically in the electronic RAI system.

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Request for Additional Information No. 3883

11/24/2009

Shearon Harris
Progress Energy Carolinas, Inc.
Docket No. 52-022 and 52-023
SRP Section: 02.03.01 - Regional Climatology
Application Section: Regional Climatology

QUESTIONS for Siting and Accident Consequences Branch (RSAC)

02.03.01-15

This RAI is in regards to the Progress Energy reply to RAI 02.03.01-14 (Letter dated June 26, 2009).

NRC staff reviewed the calculation, HAG-0000-X6C-001, Rev. 0, "Dry-bulb/Wet-bulb Temperature Evaluation," at the Progress Energy-provided Reading Room. The RAI response and the calculation describe the mean coincident wet-bulb temperature as being used in the Maximum Safety Dry Bulb and Coincident Wet Bulb Temperatures site characteristic calculations.

10 CFR 52.79(a)(1)(iii) states the COL FSAR shall include "the seismic, meteorological, hydrologic, and geologic characteristics of the proposed site with appropriate consideration of the most severe of the natural phenomena that have been historically reported for the site and surrounding area and with sufficient margin for the limited accuracy, quantity, and time in which the historical data have been accumulated."

The staff's position on the Maximum Safety Dry Bulb and Coincident Wet Bulb Temperature site characteristics is based on the following statement by Westinghouse, regarding the AP1000 design (see enclosure 3 to ML070880685 beginning on pg 45 of 81):

The maximum safety limit is the bounding temperature used by Westinghouse in the Chapter 15 Safety Analyses. We have selected bounding values to encompass a large population of potential sites in the US.

Our conditions are mainly based on a potential COL Applicant's calculation of their maximum coincident dry bulb/wet bulb temperature limits which was based on the maximum dry bulb temperature that has existed at the site for 2 hours or more combined with the maximum wet bulb temperature that exists in that population of dry bulb temperatures. This temperature selection process is based on historical meteorological data.

The maximum non-coincident wet bulb temperature is based on the maximum wet bulb temperature that has existed at the site for 2 hours or more based on historical meteorological data.

Please revise the appropriate text and tables in the FSAR to include the maximum dry bulb temperature that has existed at the site for 2 hours or more combined with the maximum wet bulb temperature that exists in that population of dry bulb temperatures, as stated in the Westinghouse discussion above. The staff recommends that these calculations should remain in the current form of 100-year return interval temperatures so as to be consistent with NRC guidance.