



Serial: RNP-RA/07-0016

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United States Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261/LICENSE NO. DPR-23

RESPONSE TO NRC REQUEST FOR
ADDITIONAL INFORMATION REGARDING PROPOSED
TECHNICAL SPECIFICATIONS CHANGE TO SECTION 3.5.2

Ladies and Gentlemen:

In a letter dated June 1, 2006, Carolina Power and Light Company, also known as Progress Energy Carolinas, Inc. (PEC), requested NRC review and approval of a change to the surveillance requirement for the containment sump as described in Technical Specifications Section 3.5.2 for H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2. An NRC request for additional information (RAI) pertaining to this amendment request was received by facsimile transmission dated January 30, 2007. Attachment II to this letter provides the response to the RAI.

Attachment I provides an Affirmation in accordance with the provisions of 10 CFR 50.30(b).

If you have any questions concerning this matter, please contact Mr. C. T. Baucom at (843) 857-1253.

Sincerely,

A handwritten signature in black ink that reads 'Jan F. Lucas'.

Jan F. Lucas
Manager – Support Services – Nuclear

A001

JFL/cac

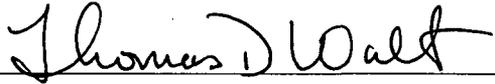
Attachments: I. Affirmation
II. Response to NRC Request for Additional Information Regarding Proposed
Technical Specifications Change to Section 3.5.2

c: Dr. W. D. Travers, NRC, Region II
Mr. C. P. Patel, NRC, NRR
NRC Resident Inspector

AFFIRMATION

The information contained in letter RNP-RA/07-0016 is true and correct to the best of my information, knowledge and belief; and the sources of my information are officers, employees, contractors, and agents of Carolina Power and Light Company, also known as Progress Energy Carolinas, Inc. I declare under penalty of perjury that the foregoing is true and correct.

Executed On: _____



Thomas D. Walt
Vice President, HBRSEP, Unit No. 2

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION REGARDING PROPOSED TECHNICAL SPECIFICATIONS CHANGE TO SECTION 3.5.2

The following responses are provided for the NRC request for additional information (RAI) that was received by facsimile transmission dated January 30, 2007:

NRC Request:

This request is for additional information (RAI) and is a follow-up to a previous NRC RAI transmitted on September 11, 2006. Your response contained a discussion of surveillance requirement of sump suction inlet & a description of the strainer assembly and included Figure 1 (Planned Strainer Configuration), and Figure 2 (Current Sump configuration).

A review of these figures indicates that one string of modules of the new strainer assembly (Figure 1), as well as portions of the new suction piping for both strings of modules are located inside the bioshield wall. The old sump screen (Figure 2) was completely outside the protective shield wall.

Please provide a summary of evaluations performed to confirm the structural adequacy of the new strainer assembly (including portions of the new suction piping at the new location) from the consideration of any potential jet impingement, missile impact, and pipe whip.

Response:

This RAI pertains to the reconfiguration of the emergency core cooling system (ECCS) sump that was shown in the figures provided with the previous RAI response letter dated November 20, 2006. Specifically, this RAI requests a summary of evaluations to confirm structural adequacy of the new strainers from the consideration of any potential jet impingement, missile impact, and pipe whip.

The engineering change process, as described in the Progress Energy Nuclear Generation Group procedure EGR-NGGC-0005, is being used to design and document the installation of this modification at H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2. Engineering Change (EC) 63481 documents the evaluations of the proposed modification, including documentation of the evaluation of potential jet impingement, missile impact, and pipe whip.

EC 63481 states that the strainer assembly is adequately protected from the hazardous effects of missiles. This conclusion is based on the evaluation of the locations of the strainer sections. The strainer sections outside the shield wall (also referred to as the crane wall) are protected by the crane wall and outer containment wall. Figure 1 from the November 20, 2006 letter is provided with this letter to show the location of these strainer sections.

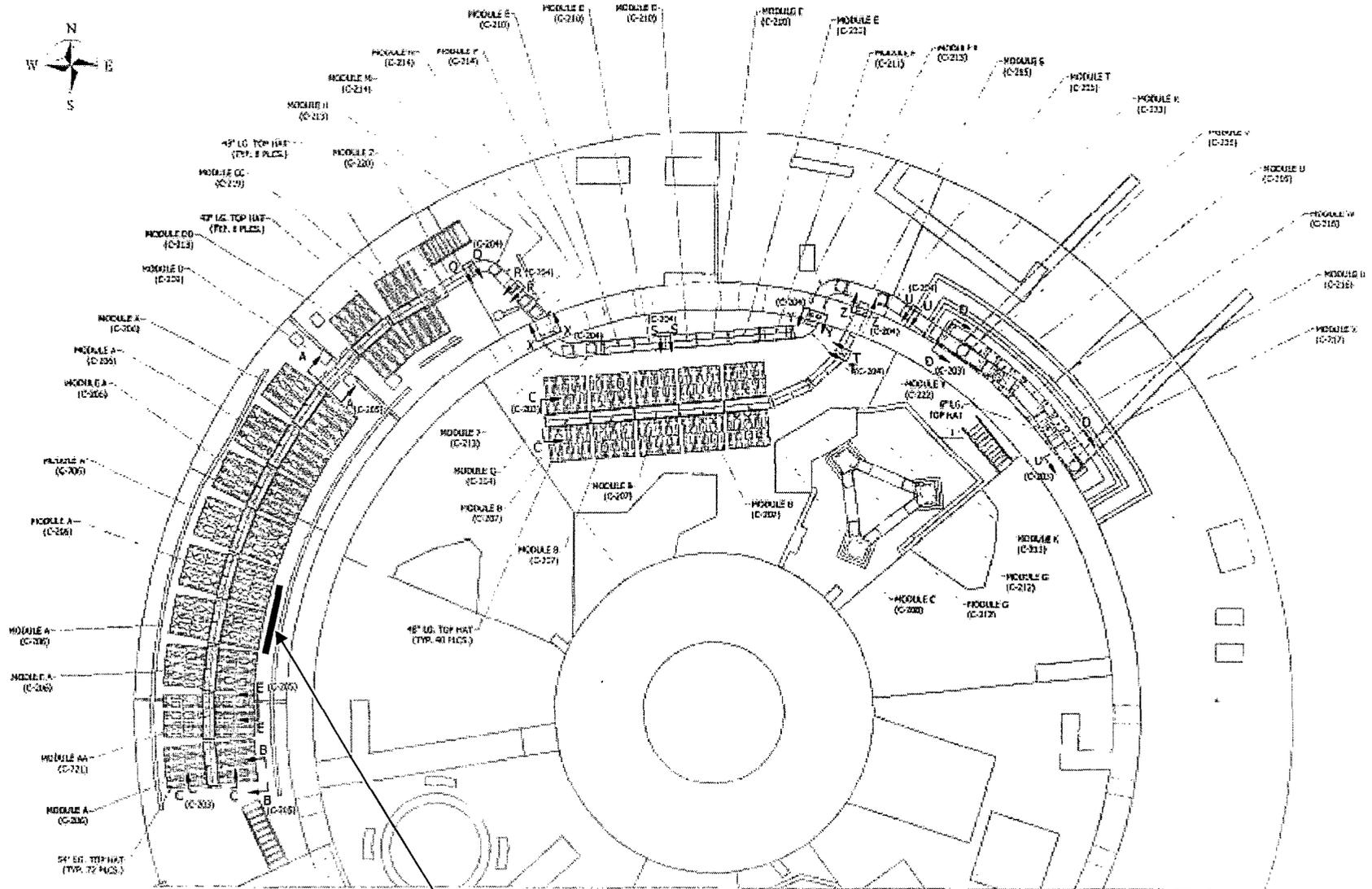
EC 63481 further states that the majority of the strainer sections located inside the crane wall are under the refueling canal and that the remaining strainer sections located inside the crane wall are not in the direct line of sight of potential missile hazards inside the surrounding reactor coolant system (RCS) pump bays.

The evaluation of pipe whip and jet impingement described in EC 63481 is based on the following criteria:

- Containment integrity must be maintained, i.e., pipes must be retained such that pipe whip or jet impingement does not result in impact on the containment liner.
- “Consequential failures” are not permitted, i.e., equipment required to mitigate an accident cannot be rendered inoperable as a direct result of pipe whip or impingement from the accident initiator.
- Interacting pipe failures are not permitted, i.e., failure of a pipe as a result of impact from the accident initiator that could increase the severity of the initial accident.

EC 63481 describes the evaluation of the potential pipe whip and jet impingement sources. This evaluation concluded that it is necessary to protect the strainer from damage that could occur due to a high energy line break in the normal letdown line, upstream of the letdown isolation valves (LCV-460A and LCV-460B). Therefore, an additional engineering change (EC 61244) was initiated to design and construct a jet impingement shield to protect the strainer from a high energy jet that could emanate from the normal letdown line upstream of the letdown isolation valves. The approximate location of the proposed jet impingement shield is provided on Figure 1.

Figure 1: Planned Strainer Configuration



Approximate location of proposed jet impingement shield

PLAN VIEW