REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 7910050287 DOC. DATE: 79/10/01 NOTARIZ[redacted]: NO DOCKET #
FACIL: 50-261 H. B. Robinson Plant, Unit 2, Carolina Power and Ligh 05000261
AUTH. NAME AUTHOR AFFILIATION
UTLEY, E. E Carolina Power & Light Co.
RECIP. NAME RECIPIENT AFFILIATION
SCHWENCER, A. Operating Reactors Branch 1

SUBJECT: Submits evaluation to justify unlimited purging. Until analytical work reviewed by NRC, purging will be limited to 90-h per yr. Thyroid dose of 325 rem is conservative, but until planning mods to reduce dose to less than 300 rem.

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TITLE: Containment Purging

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CP&L
Carolina Power & Light Company

October 1, 1979

FILE: NG-3514(R) SERIAL NO.: GD-79-2445

Office of Nuclear Reactor Regulation
ATTENTION: Mr. Albert Schwencer, Chief
Operating Reactors Branch No. 1
United States Nuclear Regulatory Commission
Washington, D.C. 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
CONTAINMENT PURGE DURING NORMAL PLANT OPERATIONS

Dear Mr. Schwencer:

In our letter to you on January 19, 1979, concerning purging of the containment building during normal operations, Carolina Power & Light Company indicated that we would be submitting an evaluation to justify unlimited purging. The evaluation of the valves in their current configuration has been completed.

The installed valves were specified to be capable of closing in two seconds against a containment atmosphere at 63 psig and 290°F. The results of valve qualification testing are available at the plant site, and demonstrate that hydrostatic testing of the valves has been satisfactorily performed at the specified conditions. Our letter of January 18, 1979 addressed all of the safety actuation circuits associated with purging and described the existing blocks or overrides.

The impact of open purge valves on ECCS performance has been evaluated. The results show that containment pressure is reduced by 0.13 psi with the purge valves open. This small decrease in containment pressure results in an increase in the peak clad temperature of 6°F (from 2188°F to 2194°F), which is within the requirement of 10 CFR 50 Appendix K.

The analysis of radiological consequences has resulted in a calculated post LOCA two hour thyroid dose of 325 rem for the postulated 2.7 second valve closure time. While we feel that this dose, which was calculated in accordance with SRP 6.2.4, BTP-CSB 6.4, SRP 3.9.3 and RG 1.XXX, is overly conservative; CP&L is planning to modify the purging system to ensure that the calculated dose is less than 300 rem. The proposed modifications would reduce the flow through the purge valves during operation. As soon as the detailed design of the modification can be completed and an analysis performed of the radiological consequences of operation in the modified condition during design basis events, this information will be submitted to you, along with any necessary Technical Specification changes.

A034
S/O

411 Fayetteville Street • P. O. Box 1551 • Raleigh, N. C. 27602

Until this analytical work has been reviewed and approved by your staff and the modifications installed, purging during normal plant operation will be limited to an absolute minimum not to exceed 90 hours per year.

Yours very truly,

E. E. Utley
Executive Vice President
Power Supply & Customer Services

EEU/jcb