

# REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8111240921 DOC. DATE: 81/11/19 NOTARIZED: YES DOCKET #  
 FACIL: 50-251 H. 3L Robinson Plant, Unit 2, Carolina Power and Light 05000261  
 AUTH. NAME: AUTHOR AFFILIATION  
 UTLEY, E. E. Carolina Power & Light Co.  
 RECIP. NAME: RECIPIENT AFFILIATION  
 EISENHUT, D. G. Division of Licensing

SUBJECT: Responds to Generic Ltr 81-21 re natural circulation  
 cooldown. Operators well qualified to execute cooldown.

DISTRIBUTION CODE: A0018 COPIES RECEIVED: LTR 1 ENCL 0 SIZE: 3  
 TITLE: General Distribution for after Issuance of Operating License

## NOTES:

|           | RECIPIENT<br>ID CODE/NAME |    | COPIES<br>LTR ENCL |    | RECIPIENT<br>ID CODE/NAME |    | COPIES<br>LTR ENCL |
|-----------|---------------------------|----|--------------------|----|---------------------------|----|--------------------|
| ACTION:   | ORBI #1 BCI               | 01 | 13                 | 13 |                           |    |                    |
| INTERNAL: | ELD                       |    | 1                  | 0  | IEI                       | 06 | 2                  |
|           | NRR/DHFS DEPY03           |    | 1                  | 1  | NRR/DL DIR                |    | 1                  |
|           | NRR/DL/DRAB               |    | 1                  | 0  | NRR/DSI/RAB               |    | 1                  |
|           | <u>RES FILE</u>           | 04 | 1                  | 1  |                           |    |                    |
| EXTERNAL: | ACRS                      | 09 | 16                 | 16 | LPDR                      | 03 | 1                  |
|           | NRCI PDR                  | 02 | 1                  | 1  | NSIC                      | 05 | 1                  |
|           | NTIS                      |    | 1                  | 1  |                           |    |                    |

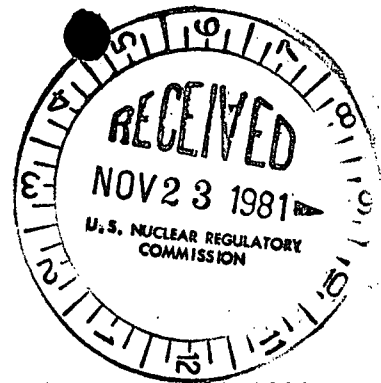
NOV 30 1981

TOTAL NUMBER OF COPIES REQUIRED: LTR 41 ENCL 0  
 39



Carolina Power & Light Company

November 19, 1981



File: NG-3514(R)

Serial No.: NO-81-1901

Mr. D. G. Eisenhut, Director  
Division of Licensing  
Office of Nuclear Reactor Regulation  
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  
RESPONSE TO NRC GENERIC LETTER NO. 81-21  
NATURAL CIRCULATION COOLDOWN

Dear Mr. Eisenhut:

CP&L has reviewed the information in your subject letter and provides the following response as requested.

NRC Item 1

Demonstrate (e.g., analysis and/or test) that controlled natural circulation cooldown from operating conditions to cold shutdown conditions, conducted in accordance with your procedure, should not result in reactor vessel voiding.

CP&L Response

The Westinghouse Owners' Group (WOG) has recently completed a new study which determined the potential for void formation in Westinghouse designed Nuclear Steam Supply Systems (NSSS) during natural circulation cooldown/depressurization transients. The results of this study were forwarded to the NRC via a WOG letter dated April 20, 1981, Serial OG-57, from Mr. Robert W. Jurgensen to Mr. Paul S. Check. This study demonstrated that Westinghouse designed NSSS's can be cooled down to the point of establishing Residual Heat Removal (RHR) System cooling using natural circulation without reactor vessel voiding. The study is applicable to the H. B. Robinson Unit No. 2 which is a 3-loop Westinghouse plant.

8111240821 811119  
PDR ADOCK 05000261  
P PDR

*As of 5/10*

This study is currently being reviewed to identify the necessary revisions to the Robinson Plant natural circulation procedure to provide additional assurance that undesired voiding does not occur. The necessary plant procedure revisions will be implemented by January 31, 1982. If procedure changes are required, the appropriate training activities will be completed by March 1, 1982.

NRC Item 2

Verify that supplies of condensate-grade auxiliary feedwater are sufficient to support your cooldown method.

CP&L Response

The Robinson Technical Specifications require a minimum of 35,000 gallons of water (approximately 19% indicated level) in the condensate storage tank (CST) for normal make-up to the secondary system. An unlimited backup water supply is available from the Robinson Impoundment via the plant Service Water System. Although not condensate grade, the service water is of sufficient quality to provide long term cooling to the steam generators without adverse affects. The 35,000 gallon requirement satisfies the amount needed for at least two hours of operation in hot standby conditions following a complete loss of turbine-generator and off-site electrical power. It should be noted that the tank level is normally maintained at 90% full. If additional auxiliary feedwater is required, it can be provided by the Water Treatment System, if off-site power is not available. Both systems are the normal backup for auxiliary feedwater, and provide unlimited auxiliary feedwater.

NRC Item 3

Describe your training program and the provisions of your procedures (e.g., limited cooldown rate, response to rapid change in pressurizer level) that deal with prevention or mitigation of reactor vessel voiding.

CP&L Response

The following is a description of the training which has been given or is being given to all licensed operators.

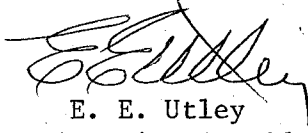
1. The Unit No. 2 natural circulation procedure was reviewed by all licensed operators after it was developed.
2. The INPO-2 and NSAC 16 report, "Analysis and Evaluation of St. Lucie, Unit 1, Natural Circulation Cooldown" (December, 1980), is being presented as a part of our 1981 retraining program. An emphasis is being placed on how reactor vessel voiding was caused and why voiding is undesirable. The St. Lucie event is included in the current annual retraining exam.

3. Training on the existing Unit No. 2 natural circulation procedure is included in the mitigating core damage training which is currently being given to all licensed operators.
4. Simulator training is given to all licensed operators each year which includes at least one natural circulation cooldown.

CP&L is quite confident that H. B. Robinson operators are well qualified to execute a natural circulation cooldown.

If you have any additional questions concerning our ability to control a natural circulation situation at H. B. Robinson Unit No. 2, please contact my staff.

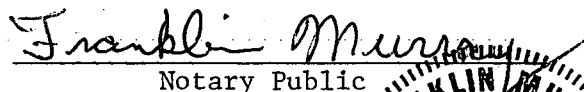
Yours very truly,



E. E. Utley  
Executive Vice President  
Power Supply and  
Engineering & Construction

JFB/DCW/lr (1918)

Sworn to and subscribed before me this 19th day of November, 1981.

  
Notary Public

My commission expires: Oct. 4, 1986

