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AUG 24 1987

Carolina Power and Light Company
ATTN: Mr. E. E. Utley
Senior Executive Vice President
Power Supply and Engineering
and Construction
P. O. Box 1551
Raleigh, NC 27602

Gentlemen:

SUBJECT: REPORT NO. 50-261/87-07

Thank you for your response(s) of July 14, 1987, to our Notice of Violation issued on June 19, 1987, concerning activities conducted at your Robinson facility. We have evaluated your response and found that, for the reasons stated in the Attachment to this letter, your response does not meet the requirements of 10 CFR 2.201. Therefore, pursuant to the provisions of 10 CFR 2.201, Carolina Power and Light is hereby required to submit to this office within 30 days of the date of this letter an amended response to the Notice of Violation, dated June 19, 1987.

We appreciate your cooperation in this matter.

Sincerely,

~~ORIGINAL~~ SIGNED BY
ALAN R. HERDT

Alan R. Herdt, Chief
Engineering Branch
Division of Reactor Safety

Enclosure:
Reason for Amended Response

cc w/encl:
G. P. Beatty, Jr., Vice President
Robinson Nuclear Project Department
R. E. Morgan, Plant General Manager

bcc w/encl:
NRC Resident Inspector
Document Control Desk
State of North Carolina

RII
JLColey:cc
8/11/87

RII
JBlake
8/14/87

RII
Fredrickson
8/17/87

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ENCLOSURE

REASON FOR AMENDED RESPONSE

Technical Evaluation of Carolina Power and Light Response Serial RNP/87-3180
Dated July 14, 1987.

While the CP&L response acknowledges the violation, the acknowledge reason for the violation and the corrective actions described in the response do not reflect an understanding of the technical issues or the significance of the violation.

The first issue which must be understood is that there are two different methods for ultrasonic examination of piping welds recognized by the ASME code. One method requires the examination and evaluation of the entire volume of weld and pipe base material; and the calibration block for this examination contains side drilled holes. (This is the calibration block that is addressed in ASME Code Case N-98). The second method requires that the examination focus on the inner one third of the volume of weld and pipe material; and the calibration block for this examination contains notches on the I.D. and O.D. surfaces.

The examination utilizing the side drilled hole calibration block is a more sensitive examination because the side drilled hole is a poorer reflector of the ultrasound than the notches. The code case N-98 tolerances on calibration block thickness can be applied because the entire volume of material must be evaluated.

The examination utilizing the notch reflectors trades examination sensitivity for other factors which include the fact that a surface notch more nearly simulates the type of reflection which would be expected of a crack, and the fact that the ID notch almost exactly simulates the location of an expected crack.

Because of the additional consideration that a crack will not reflect as strong a signal as the calibration notch, it is very important that the examiner be very sure where to expect to see crack-like indications during inspections that use a notched calibration block. This is only possible if the examiner is sure that his calibration block is the same thickness as the item to be examined.

The second issue that must be understood is that code case N-98 is very specific in its application to a calibration block which contains side drilled holes. The use of this code case for any other application cannot be authorized by the Authorized Nuclear Inservice Inspector (ANII) or by a code inquiry. A deviation of this type would have to be authorized by another code case (which would have to be approved by NRC prior to use) or by a relief request submitted to NRC.

Based on the discussion above and review of the CP&L response, it appears that the following questions remain unanswered:

1. The response states that the footnote stating eight inch (8") Schedule 120 was to "Accommodate Possible Redesign of the piping by future plant modification".

Question: How did "Possible Redesign" information get put on working inservice inspection isometric drawings?

2. The response states that the footnote of the sketch was not the basis for block selection.

Questions:

- A. Who was responsible for selecting the calibration block for the examination?
- B. What was the basis for the selection?
- C. How was the information concerning what calibration block to use transmitted to the examiner?

3. The response states that the sketch was referred to only for other piping information.

Question:

- A. What other piping information from the sketch was used during the examination?
- B. Based on the Validity of the 8" Schedule 120 note, what has been done to verify the validity of other piping information on the sketches?

4. The response lists corrective actions which have been taken and which will be taken. These corrective actions involve the subject drawings but do not address the validity of inspections conducted using the wrong calibration block.

Question:

- A. How many welds were inspected using the wrong calibration block?
- B. When will nonconforming inspections be repeated?