

DUKE POWER COMPANY

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April 19, 1984

25 09:24

Mr. James P. O'Reilly, Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30303

Re: RII:WPA  
50-413/84-19

Dear Mr. O'Reilly:

Please find attached the results of a statistical analysis evaluating concrete anchor spacing as promised in our response to Violation No. 413/84-19-01. This completes all corrective action and we are now in full compliance.

Very truly yours,

*H. B. Tucker*

Hal B. Tucker

LTP/php

Attachment

cc: NRC Resident Inspector  
Catawba Nuclear Station

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Attorney-at-Law  
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Charleston, South Carolina 29412

Palmetto Alliance  
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Columbia, South Carolina 29205

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PDR ADDCK 05000413  
Q PDR

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NRC VIOLATION 413/84-19-01

CONCRETE ANCHOR SPACING VIOLATION

In order to determine if concrete expansion anchor spacing violations are a generic problem, a statistical analysis of previously installed Non-QA anchors was conducted. This analysis was done by the Civil Technical Support Group.

A concrete expansion anchor spacing sampling program was performed in accordance with the Military Standard 105D. Our investigation has determined that a total of approximately 90,000 Non-QA anchors have been installed up to this date. From this population, a sample size of 1500 concrete expansion anchors used on field routed items (i.e., electrical conduit and instrument lines) and Construction hangers were randomly inspected for spacing violations. The required sample size of the Military Standard 105D for a population of 35,001 to 150,000 is 500.

Of the 1500 anchors in the sample inspected, seven (7) spacing violations were discovered. These violations were between anchors on field routed items and anchors used on A) QA pipe supports (4) and B) Non-QA supports (3). Our investigation on these spacing violations (Non-QA anchors and anchors used on QA pipe supports) has determined that the Non-QA anchors were installed after the installation and inspection of concrete anchors used on QA pipe supports in all of the four (4) cases.

NCI #18310 was originated and sent to Design Engineering for evaluation. Design Engineering has resolved the situation as acceptable for all of the seven (7) cases.

Due to finding seven (7) spacing violations out of the sample size of 1500, we have a greater than 95% confidence level that concrete anchors are installed in accordance with Construction Procedure 115 spacing requirements. The allowed rejection number of the Military Standard 105D for a sample size of 500 is 21.

The Corrective Steps Taken to Avoid Future Violations Are:

- A. All Craft personnel involved in anchor installation have been cautioned to follow the installation requirements of CP 115.
- B. Construction Procedure 115 was revised in April, 1984 to caution Craft that anchor spacing requirements must be maintained for all cases (QA Condition and Non-QA Condition) unless the Design drawing specifies otherwise.

Based on our inspection results, we have no reason to believe that any further actions are required. We are now in full compliance.