

UNITED STATES  
ATOMIC ENERGY COMMISSION

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REGION II - SUITE 818

230 PEACHTREE STREET, NORTHWEST  
ATLANTA, GEORGIA 30303

TELEPHONE: (404) 526-4503

DIRECTORATE OF REGULATORY OPERATIONS

In Reply Refer To:  
RO:II:JGD  
50-261


OCT 27 1972

Carolina Power and Light Company  
Attn: Mr. J. A. Jones  
Senior Vice President  
Engineering and Operating  
336 Fayetteville Street  
Raleigh, North Carolina 27602

Gentlemen:

Thank you for your letter dated September 5, 1972, in response to our letter dated June 30, 1972, relative to verification of certain valve wall thicknesses for the H. B. Robinson No. 2 facility. We have forwarded your letter to Regulatory Operations, Headquarters for further evaluation, and will inform you of the results when available.

Very truly yours,

  
John G. Davis  
Director

*Handwritten note:*  
Miss  
app.

# Carolina Power & Light Company

Raleigh, North Carolina 27502

September 5, 1972

Mr. John G. Davis, Director  
Directorate of Regulatory Operations  
United States Atomic Energy Commission  
Region II - Suite 818  
230 Peachtree Street, Northwest  
Atlanta, Georgia 30303

H. B. ROBINSON UNIT NO. 2  
LICENSE DPR-23  
VALVE WALL THICKNESS

Dear Mr. Davis:

Your letter of June 30, 1972, requested Carolina Power & Light Company verify by appropriate records that certain valves installed in our facilities and important to nuclear safety meet minimum wall thickness requirements of specified codes. By separate correspondence, the Company has indicated how compliance with this request will be carried out in new construction plants. Verification of valve wall thickness prior to reactor operation is primarily an economic consideration and relatively straightforward to accomplish. However, complying with your request for a plant that has been in operation is a more complex undertaking.

It has been verified that the quality assurance records at H. B. Robinson Unit No. 2 do not include documented valve wall thickness measurements and it will therefore be necessary to obtain these measurements to comply with your request. There are 122 valves over 1" in the reactor coolant boundary. Fifty-two of these are cast valves and may be difficult to ultrasonically measure to an accuracy level of 2%. For valves 4 inches or less, it is estimated that an accuracy of 10% may be realistic. Of concern to the Company is the deliberate radiation exposure required to obtain valve thickness measurements in a plant with a radiation history. We have estimated that it may require at least 180 rem to accomplish the inspections on all valves and assuming the plant continues to have favorable fuel performance. With a failed fuel history, the total exposure would be several orders of magnitude greater. A Technical Specifications change will be required to accomplish valve measurements on the Residual Heat Removal system. Since the RHR system must remove decay heat in the shutdown mode, the valves in this system cannot be drained or disassembled when the plant is shut down under current directives.

Ltr to Carolina Power and Light Company fm J. G. Davis  
dtd 10/27/72

Ltr to J. G. Davis fm E. E. Utley, CP&L, dtd 9/5/72

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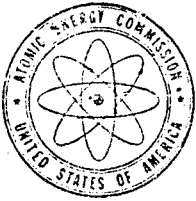
\*PDR

\*Local PDR

\*NSIC

\*OIS

\*To be dispatched after Headquarters evaluation of licensee's response.



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ATOMIC ENERGY COMMISSION

XXXXXXXXXXXXXXXXXXXXX  
REGION II - SUITE 818  
230 PEACHTREE STREET, NORTHWEST  
ATLANTA, GEORGIA 30303

TELEPHONE: (404) 526-4503

DIRECTORATE OF REGULATORY OPERATIONS

AUG 22 1972

H. B. Robinson Steam Electric Plant  
ATTN: Mr. Ben J. Furr  
Plant Superintendent  
P. O. Box 790  
Hartsville, South Carolina 29550

Gentlemen:

Enclosed is a compilation of the results for samples collected at H. B. Robinson No. 2 on March 15, 1972. Splits of the samples were analyzed by your laboratory, the State of South Carolina and the AEC's Idaho Health Services Laboratory (HSL).

There was reasonable agreement in the results except for strontium 90 on the liquid sample. Your strontium 90 result was high by a factor of at least 500. When joint effort by your Engineering Supervisor, Fred Tollison, and State personnel failed to account for such a difference, we made arrangement for HSL to furnish a standard sample for analysis by your laboratory and the State.

On June 20, 1972, we received the last of the results for the HSL standard. They were:

	HSL <u>d/m/ml</u>	State <u>d/m/ml</u>	H. B. Robinson <u>d/m/ml</u>
Sr 90	528	594	626
Co 60	1038	1038	500
Cs 137	1360	1293	983
Ce 144	1450	1299	1300

In a telephone conversation on June 30, 1972, Tollison informed J. T. Sutherland, Region II Environmental Coordinator, that he (Tollison) had found errors in the cobalt 60 and cesium 137 results shown in the third column above. In both cases the background had been

Misc.

H. B. Robinson Steam  
Electric Plant

- 2 -

AUG 22 1972

subtracted twice. When adjusted, the results were 830 d/m/ml for cobalt-60 and 1086 d/m/ml for cesium 137. This brought both within the range of 20% error. Sutherland pointed out that the strontium 90 results, which were of primary concern, were almost within the range of statistical variation and asked if this had revealed anything to account for the difference in the strontium 90 results for the March 15 sample. Tollison said that it did not in spite of the fact that the data for the March 15 sample had been reviewed thoroughly.

In view of the above we have decided not to expend further effort and time toward the resolution of the difference in the strontium 90 results for the March 15 sample but, rather, we will concentrate on and follow closely the results for the samples collected on July 12, 1972.

Contact us if you have any questions or comments concerning this.

Sincerely,



Jack T. Sutherland  
Region II Environmental Coordinator

RO:II:JTS

Enclosure:  
Sample results

Letter to H. B. Robinson Steam Electric Plant  
dated August 22, 1972

DISTRIBUTION:

J. G. Keppler, RO

J. B. Henderson, RO

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