

# DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

July 26, 1982

TELEPHONE: AREA 704  
373-4083

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention: Ms. E. G. Adensam, Chief  
Licensing Branch No. 4

Re: Catawba Nuclear Station  
Docket Nos. 50-413 and 50-414

Dear Mr. Denton:

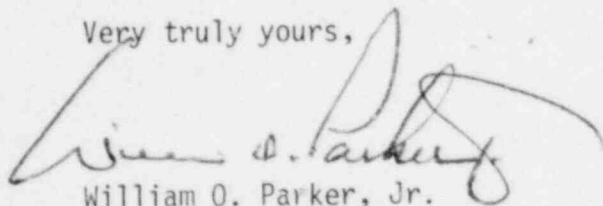
Elinor G. Adensam's letter of December 9, 1981 transmitted question 440.T.5 from the Reactor Systems Branch. This question requested justification for bypassing the anticipatory reactor trip on turbine trip at low power levels.

Attachment 1 provides an analysis of the feasibility of deletion of reactor trip on turbine trip below 70 percent power. Attachment 2 provides an analysis of the radiological doses from the steam potentially released from the steam generator safety valves.

From these analyses it is concluded that the plant design permits a turbine trip without a direct or immediate reactor trip with no hazard to the integrity of the Reactor Coolant System or the main steam system. Pressure relieving devices incorporated in the two systems are adequate to limit the maximum pressures to within the design limits. The analyses also demonstrate that for a complete loss of forced reactor coolant flow initiated from the most adverse preconditions of a turbine trip, the departure from nucleate boiling ratio does not decrease below the limit value during the transient. Thus, no fuel or clad damage is predicted, and all applicable acceptance criteria are met.

For normal plant operation with all normal control systems assumed operational, pressurizer pressure does not reach the point of pressurizer PORV actuation. Therefore, the deletion of reactor trip on turbine trip below 70 percent power is not expected to significantly increase the probability of a small break LOCA due to a stuck-open PORV.

Very truly yours,



William O. Parker, Jr.

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Attachment

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Mr. Harold R. Denton, Director  
July 26, 1982  
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cc: Mr. James P. O'Reilly, Regional Administrator  
U. S. Nuclear Regulatory Commission  
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NRC Resident Inspector  
Catawba Nuclear Station

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ATTACHMENT 1