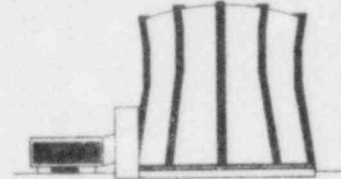


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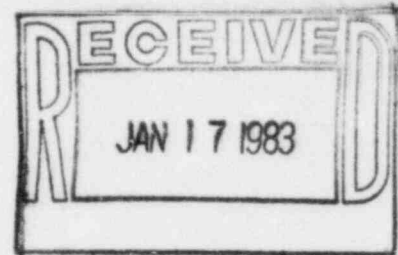
THE TEXAS A&M UNIVERSITY SYSTEM
COLLEGE STATION, TEXAS 77843



NUCLEAR SCIENCE CENTER
713/845-7551

11 January 1983

Mr. G. L. Madsen
Office of Inspection and Enforcement
Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza, Suite 1000
Arlington, Texas 76012



Subject: Failure of Fuel Temperature Indication to Respond During Reactor Startup

Dear Mr. Madsen:

Enclosed is a final report of a reportable occurrence observed during reactor operations of the NSCR. This report is submitted in compliance with Section 6.4 and 1.8 of Change No. 11 of the Technical Specifications, Facility License No. R-83 for the Nuclear Science Center, Texas A&M University.

Sincerely,

Dale Rogers, Manager
Reactor Operations

DR/ym

Enclosure

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Final Report of Failure of Fuel Thermocouple During Reactor Startup

Reportable Occurrence

On January 10, 1983 during a reactor startup to 400 kilowatts it was noticed by the reactor operator that the fuel temperature indication was not tracking. This startup was the initial startup following a core loading during which the instrumented fuel element was handled. The thermocouple was verified operational prior to startup and indicated approximately ambient pool temperature. It was not until the reactor was above the point of adding heat that the operator noted no increase in fuel temperature. At that point the startup was discontinued, and the reactor was shutdown for investigation.

Corrective Action

Shorted thermocouple wires were discovered in a terminal box causing the indication to read approximately ambient temperature at all times. The problem was corrected, but during subsequent operation at 400 kilowatts it was noted that the fuel temperature indication was somewhat lower than that indicated on a second thermocouple (TC #2) in the same element. Therefore, the reactor was shutdown again, and the fuel temperature instrument was connected to the more conservative (highest) indication (TC #2 in IF #8795). The reactor has operated since that time with no further problems.