



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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DEC 18 1978

Mr. Douglas Gerlach
429 North George Street
Hanover, Pennsylvania 17331

Dear Mr. Gerlach:

Chairman Hendrie has asked that I respond to your letter of November 28, 1978 concerning the operation of the Fort St. Vrain reactor and the HTGR concept in general. We are happy to supply you with this information and hope that it will aid the development of your debate team's topic of energy independence.

With respect to Fort St. Vrain, it has been operational for testing purposes since early 1974 and has been generating electricity at partial power since December 1976. It continues to undergo power ascension testing and is now authorized to operate up to 70 percent of its rated thermal power. The reactor is currently operating at about 65 percent of power while additional information is being gathered and analyzed pertaining to fluctuations in the temperature of the heated helium exiting the reactor. It is likely to be several months before our investigation into this phenomena is completed to the stage where we could permit power operation at levels greater than 70 percent. This topic has been the subject of a recent meeting held in Denver between the NRC Staff, representatives of Public Service of Colorado, and the reactor vendor, the General Atomic Company. The public was invited to participate at this meeting, a summary of which is enclosed for your information.

You also wish to know if any major problems with the HTGR concept have been discovered. In terms of problems significant to safety, we foresee no major problems that cannot be resolved by design choices, research and development efforts or operational procedures.

With regard to your request for general information on the HTGR, I enclose copies of two recent technical publications by NRC staff members. Together with general HTGR information these papers provide a survey for the HTGR of our licensing criteria, past licensing experience, the postulated accidents used to test the safety design, and the NRC's safety research program.

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Mr. Douglas Gerlach

- 2 -

I trust that the information supplied by this letter and its enclosures will be sufficient for your purposes. If you desire fully detailed information on HTGR activities at the NRC I would recommend that you visit the NRC Public Document Room at 1717 H Street, N.W., Washington, D. C., where complete records of licensing correspondence and technical documents are maintained for public inspection.

Sincerely,

Original Signed by
H. R. Denton

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Enclosures:

1. Summary of Meetings held on November 3 and 4, 1978
to discuss FSV items
2. Licensing Criteria for HTGRs in the United States
3. HTGR Postulated Accidents and Safety Research Needs in the
United States