



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

APR 10 1981



Dr. J. Carson Mark, Chairman  
Advisory Committee on Reactor  
Safeguards  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dear Dr. Mark:

SUBJECT: APPLICATION OF NRC ACTION PLAN TO FORT ST. VRAIN NUCLEAR  
GENERATING STATION

Your February 10, 1981 letter states two concerns that the ACRS has relating to the NRC staff's recognition that the Fort St. Vrain Nuclear Generating Station is a unique facility.

We agree with your first concern that some of the NRC Action Plan and related NRC staff positions developed from the TMI accident are being applied to the Ft. St. Vrain facility without appropriate consideration being given to certain basic differences between HTGRs and LWRs. We recognized this problem during the development of the TMI related technical requirements and modified some requirements for the HTGR (e.g., allowing a 5 mile Emergency Planning Zone versus a 10 mile Emergency Planning Zone for LWRs). We recognize this problem has not been adequately resolved and therefore are obtaining a contractor to evaluate the technical requirements developed from the TMI accident for applicability to HTGRs. The contractor will provide a technical evaluation report to the staff that discusses the applicability of the principal safety rationale of the technical requirements to HTGRs. The staff will use the technical evaluation report in applying the appropriate technical requirements to HTGRs.

The review of the technical requirements for applicability to HTGRs will be conducted in two phases. The first phase is the review of current technical requirements for applicability to HTGRs. The first phase will be completed in about six months. The second phase will be the review of new technical requirements for applicability to HTGRs.

The second concern that you expressed is that the Lessons Learned studies and the Action Plan were developed within the context of LWRs only. The staff has not attempted to look specifically at the HTGR in the light of lessons learned from TMI-2 and subsequently developed a specialized HTGR Action Plan. However, the review of the technical requirements for applicability to HTGRs, as discussed above, will focus specifically on the principal safety rationale for the requirements. Therefore, this effort will meet

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Dr. J. Carson Mark, Chairman - 2 -

the objective of reviewing the safety requirements developed from the Three Mile Island accident specifically for the HTGR.

In the future, we shall provide you an update on our efforts in this area.

Sincerely,

Signed: William J. Dircks

William J. Dircks  
Executive Director for Operations



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
WASHINGTON, D. C. 20555

February 10, 1981

Mr. William J. Dircks  
Executive Director for Operations  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

SUBJECT: APPLICATION OF NRC ACTION PLAN TO FORT ST. VRAIN NUCLEAR  
GENERATING STATION

Dear Mr. Dircks:

The ACRS Subcommittee on the Fort St. Vrain Nuclear Generating Station met on January 27, 1981 with representatives of the Licensee, Public Service Company of Colorado, and with members of the NRC Staff.

At this meeting we discussed the implications of the TMI-2 accident in relation to the Fort St. Vrain plant which, as you know, is a high-temperature gas-cooled reactor (HTGR), not a light-water-cooled reactor (LWR).

It became apparent during this meeting that many items of the NRC Action Plan and related NRC Staff positions developed from the TMI accident are being applied to the Fort St. Vrain plant without appropriate consideration being given to certain basic differences between HTGRs and LWRs. This procedure does not constitute good regulatory policy, nor does it necessarily lead to appropriate improvements in safety for Fort St. Vrain or to confidence in the regulatory process.

Many of the Action Plan items are not applicable to Fort St. Vrain. Examples include reactor water level measurements, high point reactor vents, PORV related items, and subcooling meters. The NRC Staff has recognized some of these differences.

At the same time it is clear that many of the Action Plan items apply directly in whole or in part to Fort St. Vrain. But there are many items that lie between these positions. In addition to the major differences in HTGR and LWR technology, there are significant differences in response times required to deal with both operating transients and postulated accidents. There are also differences in fission product inventories in the coolant and in potential radiological releases.

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Mr. William J. Dircks

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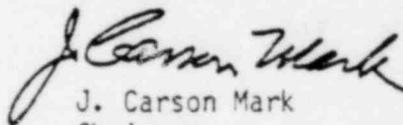
February 10, 1981

From the information we have, it appears that the differences mentioned above are not being recognized appropriately by the NRC Staff in spite of continued efforts by the Licensee to describe and explain them as they relate to the implementation of certain requirements of the Action Plan.

We have a further concern. The Lessons Learned studies and the Action Plan were developed entirely within the context of LWRs. We have seen no evidence that an attempt has been made to look specifically at an HTGR in the light of the lessons learned from TMI-2. Such an approach might lead to improvements in an HTGR of an entirely different nature than those now being required of LWRs.

We realize that the effort necessary to give appropriate consideration to the spectrum of needs of a reactor type which is quite different from those which the Action Plan items address may present some problems for the NRC Staff. Nevertheless, we believe that the public safety is not being served by treatment of Fort St. Vrain as if it were an LWR. Nor do we believe that the best interest of the public is served by the failure to profit from the TMI-2 experience as it bears on the special characteristics of an HTGR.

Sincerely,



J. Carson Mark  
Chairman

cc:  
Commission  
S. Chilk, SECY