

In Reply Refer To:  
Docket: 50-267

MAR 14 1983

Mr. O. R. Lee, Vice President  
Electric Production  
Public Service Company of Colorado  
P.O. Box 840  
Denver, Colorado 80201

Dear Mr. Lee:

We have completed our review of the information you submitted in response to NUREG-0737, Item II.B.2, "Plant Shielding" and also inspected the involved areas of the Fort St. Vrain station. Our evaluation of this subject is contained in the enclosure to this letter.

Based on our review and inspection, we have concluded that the requirements of NUREG-0737, Item II.B.2 have been met at the Fort St. Vrain station.

Sincerely,

*for*  
"Original Signed by  
J. E. WESTERMAN"

G. L. Madsen, Chief  
Reactor Project Branch 1

Enclosure: As stated

cc: See Attached List

RPB1 *ew*  
PWagner/dsm  
3/9/83

*TT*  
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*WJ*  
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FT. ST. VRAIN - DOCKET 50-267

SAFETY EVALUATION REPORT  
NUREG 0737, ITEM II.B.2 - DESIGN REVIEW OF PLANT SHIELDING -  
ACCESS TO VITAL AREAS

INTRODUCTION

New requirements have been recommended for operating power reactors because of the accident at Three Mile Island (TMI), Unit 2. These requirements were developed into an "Action Plan," NUREG 0660, by the NRC staff. Later changes were recommended in "Clarification of TMI Action Plan Requirements," NUREG 0737, to provide for improved safety at nuclear power plants.

NUREG 0737, Item II.B.2, directed all licensees to perform a design review of plant shielding and to provide for adequate access to vital areas. The design review should identify the location of vital areas and equipment in which personnel occupancy may be limited by the radiation fields during postaccident operations of these systems. Also, the licensee was required to provide for adequate access to vital areas by design changes, increased permanent or temporary shielding, or postaccident procedural controls. The design review study was to determine the corrective actions needed for vital areas of the nuclear power reactor during an accident situation.

The licensee has not requested technical deviations from the criteria of Item II.B.2.

The following evaluation contains the results of the post-implementation review regarding NUREG 0737, Item II.B.2, performed at Ft. St. Vrain Nuclear Power Plant.

EVALUATION

During NRC Region IV Inspection 50-267/82-21, the NRC inspectors reviewed the shielding design study performed by the licensee. NUREG 0737 was written primarily for light water reactors which does not apply in every detail to the Ft. St. Vrain high temperature gas cooled reactor. Therefore, the shielding design review was performed with the source term given in the FSAR and a portion of the vital areas were different from those expected for light water reactors. The shielding design review methodology and calculations represented the "state-of-the-art" and were acceptable.

During NRC Region IV Inspection 50-267/82-29, the NRC inspectors traced the paths from the main control room to points in the nuclear plant that would be visited by plant personnel during an accident. This included the postaccident sample station area to the radiochemistry laboratory in order to determine if these were potential sources of radiation under postaccident conditions. During this "walkdown" the inspector discussed potential postaccident sources of radiation with the licensee representative. The NRC inspector did not observe any potential sources of radiation that were not included in the licensee's evaluation.

CONCLUSION

Based on our review of the Ft. St. Vrain nuclear power plant shielding design review and an independent assessment of vital area accessibility, it has been concluded that the requirements of NUREG 0737, Item II.B.2, have been met.

Fort St. Vrain  
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