

JAN 28 1985

DMB

In Reply Refer To:
Docket: 50-267

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

Dear Mr. Lee:

We have reviewed the information you have provided concerning the environmental qualification of equipment important to safety. We require additional information to complete our review; our specific request is contained in the enclosure to this letter. We request that you respond to our questions and comments within 60 days of the date of this letter.

Based on our review, it appears that you may fail to comply with the implementation deadlines presented in 10 CFR Part 50.49. Therefore, it is imperative that a complete response to the certifications required by Generic Letter 84-24, "Certification of Compliance to 10 CFR 50.49, Environmental Qualification of Electrical Equipment Important to Safety for Nuclear Power Plants," dated December 27, 1984, be provided in a timely manner. In addition, your response to this request should include an enforceable schedule of corrective actions for those items where long-term noncompliance is contemplated.

Since this request relates solely to the Fort St. Vrain Station, OMB clearance is not required under PL 96-511.

If you have any questions on this request, please contact the NRC Project Manager at (817) 860-8127.

Sincerely,

Original Signed By
E. H. Johnson
E. H. Johnson, Chief
Reactor Project Branch 1

Enclosure:
Request for Information

cc: (see next page)

SPES *ew*
PCWagner/1k
1/22/85

SPES *REI*
REIreland
1/22/85

RPB1 *EHJ*
EHJohnson
1/24/85

8502060051 850128
PDR ADOCK 05000267
P PDR

1/1 Noos

C. K. Millen, Senior Vice President
Public Service Company of Colorado
P. O. Box 840
Denver, Colorado 80201

Mr. David Alberstein, 14/159A
GA Technologies, Inc.
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San Diego, California 92138

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Chairman, Board of County Comm.
of Weld County, Colorado
Greeley, Colorado 80631

Regional Representative
Radiation Programs
Environmental Protection Agency
1860 Lincoln Street
Denver, Colorado 80203

Mr. H. L. Brey, Executive Staff
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Public Service Company of Colorado
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J. W. Gahm, Manager, Nuclear
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Fort St. Vrain Nuclear Station
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Platteville, Colorado 80651

L. Singleton, Manager, Quality
Assurance Division
(same address)

bcc distrib. by RIV:

RPB1	Resident Inspector
RPB2	Section Chief (SP&ES)
EP&RPB	P. Wagner, RPB1
RIV File	D. Powers, RPB1
COLORADO STATE DEPT. HEALTH	
CPB/NRR	D. Eisenhut, D/DL
K. Heitner, ORB3	J. Taylor, IE
V. Noonan, EQB/NRR	R. LaGrange, EQB/NRR

R. D. Martin, RA
MIS System
R. Denise, DRS&P
E. Haycraft, DRSP/LA
J. Miller, ORB3
G. Lainas, DL
E. Jordan, IE
R. Karsch, ORAB/NRR

REQUEST FOR ADDITIONAL INFORMATION
FORT ST. VRAIN

The staff has reviewed the environmental qualification (EQ) information provided by Public Service Company of Colorado (PSC) for Fort St. Vrain (FSV). In order to complete the Safety Evaluation Report on EQ for FSV, the following information is requested:

1. Submit a description of the sequence of events affecting or involving operator action that take place during a turbine building hot reheat pipe rupture. This description should include the operator actions necessary, the equipment that operates as a result of the operator actions, the elapsed time before the required actions are complete, the information available to the operators to inform them of the need to take the actions, and the sequence of events if the operators fail to take the required action.
2. The best information currently available for LWRs indicates that an acceptable time for operator action commences at 10 minutes after an event initiation, with an additional minute for each discrete operator action. Since FSV is an HTGR, different action times may be appropriate for evaluation of events analyzed as a basis for licensing. Submit a detailed justification that provides assurance that the operators will, for all likely operating contingencies, take the required actions within 4 minutes. To aid the staff in making a determination of the relative consequences of delayed operator action, provide the temperature curves developed assuming that the operators commence isolation at 10 minutes.
3. Even though access to any location in the plant is possible before and "shortly" following an accident, the staff's position is that the aging requirements of the DOR Guidelines do apply to FSV. If electrical equipment, safety-related or nonsafety-related, is relied upon to remain functional during and following design basis events, then that equipment must be qualified for the environmental conditions at that location. Any age related degradation which would prevent the equipment from operating as required must be identified and the equipment replaced or repaired as necessary. For the reasons stated above, submit a summary of the FSV maintenance/surveillance program. Include a description of the methods used to maintain the qualification of safety-related equipment, including use of manufacturer's recommended preventive maintenance requirements and use of aging considerations.
4. Confirm that an operability time has been established for each item of safety-related electrical equipment that is in a harsh environment and is required to operate or not fail following an accident. The accidents analyzed should include all accidents which will cause a significant adverse environment to electrical equipment.

5. The previous FSV justification for not using replacement parts qualified to 10 CFR 50.49 is inadequate. Regulatory Guide 1.89, Rev. 1, June 1984, paragraph C6, lists those reasons that the staff regards as adequate. Indicate which reasons FSV considers applicable.
6. Submit all applicable justifications for continued operation (JCOs) that are currently being relied upon and confirm the following for each JCO associated with equipment that is assumed to fail:

No significant degradation of any safety function or misleading information to the operator as a result of failure of equipment under the accident environment resulting from a design basis event will occur.

7. The licensee should confirm that, in performing its review of the methodology to identify equipment within the scope of 10 CFR 50.49(b)(2), that the following steps have been addressed:
 - a. A list was generated of safety-related electrical equipment as defined in paragraph (b)(1) of 10 CFR 50.49 required to remain functional during or following design basis accidents. These accidents are the only design-basis accidents which result in significantly adverse environments to electrical equipment which is required for safe shutdown or accident mitigation. The list was based on reviews of the Final Safety Analysis Report (FSAR), Technical Specifications, Emergency Operating Procedures, Piping and Instrumentation Diagrams (P&IDs), and electrical distribution diagrams;
 - b. The elementary wiring diagrams of the safety-related electrical equipment identified in Step a. were reviewed to identify any auxiliary devices electrically connected directly into the control or power circuitry of the safety-related equipment (e.g., automatic trips) whose failure due to postulated environmental conditions could prevent required operation of the safety-related equipment;
 - c. The operation of the safety-related systems and equipment were reviewed to identify any directly mechanically connected auxiliary systems with electrical components which are necessary for the required operation of the safety-related equipment (e.g., cooling water for lubricating systems). This involved the review of P&IDs, component technical manuals, and/or systems descriptions in the FSAR; and
 - d. Nonsafety-related electrical circuits indirectly associated with the electrical equipment identified in Step a. by common power supply or physical proximity were considered by a review of the electrical design including the use of applicable industry standards (e.g., IEEE, NEMA, ANSI, UL, and NEC) and the use of properly coordinated protective relays, circuit breakers, and fuses for electrical fault protection.

8. Provide confirmation that all design basis events which could potentially result in a harsh environment, including flooding, were addressed in identifying safety-related electrical equipment within the scope of 10 CFR 50.49(b)(1).
9. Confirm that the electrical equipment within the scope of 10 CFR 50.49(b)(3) is all RG 1.97 Category 1 and 2 equipment or that justification for continued operation has been provided for any such equipment not included in the EQ program.