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JUL 23 1980

Docket No. 50-267

Mr. J. K. Fuller, Vice President
Public Service Company of Colorado
P. O. Box 840
Denver, Colorado 80201

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Dear Mr. Fuller:

Your Emergency Plan, which was submitted in April 1980, has been reviewed by the NRC Emergency Preparedness Task Force and additional information is required before the plan can be approved. Some of the NRC comments were presented during the technical meeting held at the plant site on May 21, 1980. The enclosed request for additional information is a compilation of the comments presented at the technical meeting and further details required by both our consultants and staff.

In providing the answers to our request for additional information, please be aware of the fact that the Commissioners are in the process of revising the criteria for the near site EOF. Although the requirement that the EOF be within one mile of the site no longer applies, the exact wording of the new criteria is not yet available. When the revised criteria are approved, you will be notified of the exact requirements.

Your revisions to the Emergency Plan should be provided by August 29, 1980, and should include any exceptions and justifications that you feel are applicable due to the unique nature of the HTGR.

If you have any questions or comments, please let me know.

Sincerely,

Original signed by
Robert L. Tedesco, Assistant Director
for Licensing
Division of Licensing

cc: See next page

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*SEE PREVIOUS CONCURRENCES

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DATE	7/17/80	7/17/80	7/17/80	7/17/80

Docket No. 50-267

Mr. J. K. Fuller, Vice President
Public Service Company of Colorado
P.O. Box 840
Denver, Colorado

Dear Mr. Fuller:

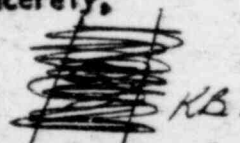
Your Emergency Plan, which was submitted in April 1980, has been reviewed by the NRC Emergency Preparedness Task Force and additional information is required before the plan can be approved. Some of the NRC comments were presented during the technical meeting held at the plant site on May 21, 1980. The enclosed request for additional information is a compilation of the comments presented at the technical meeting and further details required by both our consultants and staff.

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Your revisions to the Emergency Plan should be provided by August 29, 1980, and should include any exceptions and justifications that you feel are applicable due to the unique nature of the WTR.

If you have any questions or comments, please let me know.

Sincerely,



Robert E. Tedesco, Assistant Director
Special Licensing and Special
Division of Licensing
Division of Licensing
Office of Nuclear Reactor Regulation

cc: See next page

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DATE	7/17/80	7/17/80	7/ /80	7/ /80		

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The Emergency Preparedness Task Force has completed its review of your emergency plan submittal dated April 1980, which relates to prompt improvement of emergency preparedness associated with the Fort St. Vrain Nuclear Plant.

The results of the review of the Fort St. Vrain Upgraded Emergency Plan were presented to your staff in a technical meeting held in Platteville, Colorado, on May 21, 1980. Additional information relative to the NUREG-0654 Evaluation Criteria is required before the emergency preparedness review team can conclude that your emergency preparedness program is acceptable. Accordingly, your emergency plan should be reviewed against the evaluation criteria and a revision to the plan provided by August 29, 1980

1. Plan must be revised to establish a principal and an alternate EOF. Both facilities should meet the requirements of Darrell G. Eisenhower's letter of April 25, 1980, subject "Clarification of NRC Requirements for Emergency Response Facilities at Each Site."
2. Plan must be revised to take into consideration the plant staffing in Table B-1 of NUREG-0654. There must be some augmentation of onsite personnel within 30 minutes. Must identify position that will not be filled and provide rationale for not having 10 personnel on shift at all times.
3. The plan must (in addition to other NUREG-0610 notification requirements) specify that when a "general" emergency is declared that the offsite authorities responsible for implementation of protective measures will be

notified by the "Plant Emergency Director" and advised of recommended protective actions within 15 minutes of the direction of the emergency condition. The plan must specify the content of this initial message to include:

- a. Class of emergency
- b. Whether a release is taking place
- c. Affected areas
- d. Protective measures

NOTE: The protective measures recommended in the initial message offsite may be - "go inside - turn on radio" (30 minutes) provided a followup message indicating more detail protective measures based on dose projections.

4. Your plan must describe the public notification system to include:
 - a. The initial offsite contact who will be responsible for notifying the affected population (either the specific organization or individual).
 - b. The capability for 24-hour-per-day notification (to offsite authorities).

- c. The physical alerting system to be used: sirens, NOAA weather of emergency alert, telephone automatic dialers, aircraft with loudspeakers (which will be used to alert public).

(10 db above average daytime ambient background is a target level for design of an adequate siren system.)

<u>Distance</u>	<u>% Notified in 15 Minutes</u>
5 miles	100%

- d. The basis for any exceptions (e.g., for extended water areas with transient boats or remote hiking trails) must be documented.
- e. Every year you must take a statistical sample of the residents of all areas within the 5-mile EPZ to assess the public's awareness of the prompt notification system and the availability of information on what to do in an emergency.

Plan must also include a provision for corrective measures to provide reasonable assurance that coverage approaching the design objectives is maintained.

- f. The provisions for use of a public media system (radio, TV) to provide clear instructions to the public.

- a. Twenty-four-hour station - total plume coverage.
- b. Include in the plan the messages to be transmitted to the public (cover a range of protective actions).

It is the operator's responsibility to ensure that the means exist for notifying and providing prompt instructions to the public.

It is the responsibility of the State and local governments to activate the system.

5. Under PSC actions, Table 4.1-1, page 1, the first item, the 2-hour time limit for notification of an occurrence of an unusual event should be changed to "as soon as discovered." Similarly, the fourth item under PSC action should include a requirement for a written summary within 24 hours.
6. Table 4.1-1, page 1, under initiating events. Initiating event number 3 in the plan should be changed to indicate a fire lasting more than 10 minutes as is expressed in initiating example 10 on page 4 of NUREG-0610. It is recognized that the technology of a gas-cooled reactor is different from light-water reactor technology. Therefore, some of the initiating examples shown in NUREG-0610 may not be applicable to a gas-cooled reactor. However, the licensee should explain the basis for not including the following initiating examples. The initiating examples in question are found on pages 4

and 5 of NUREG-0610. They are examples 2, 4, 6, 7, 8, 9, 11, 12, 14e and 15.

7. Initiating event number 5 is similar to initiating event 7 on page 7 of NUREG-0654. The 30 minutes mentioned in initiating event number 5 in the plan should be discussed and justified.
8. Table 4.1-2, page 1, under the column listed PSC actions, item 5, corresponds with licensee action number 5 on page 6 of NUREG-0610 and the updates in that item are required at least every 15 minutes; therefore, this requirement is requested to be put in the plan.
9. Item 7 under PSC action corresponds with item 7 on page 6 under licensee actions of NUREG-0610. The licensee action 7 in the criterion asks for a written summary within 8 hours rather than 24 hours.
10. Table 4.1-2, page 2, under the column entitled initiating events, initiating event number 6 corresponds with initiating event number 8 on page 7 of NUREG-0610. Initiating event number 6, however, in the plan gives a time interval of up to 30 minutes. This interval should be discussed and justified by the licensee.
11. Table 4.1-3, page 2, under PSC actions. The second item requires PSC to terminate or recommend reduction of emergency class verbally at FCP followed by a written summary within 24 hours. An 8-hour

time interval is given in NUREG-0610, page 9, under licensee action item number 9.

12. Table 4.1-4, page 1, under the column initiating events. There should be some discussion of initiating events 3 and 4 on page 15 of NUREG-0610 regarding possible relevance and applicability to Fort St. Vrain.
13. Table 4.1-4, page 2, under the column entitled PSC actions, the last item which says, "Terminate or recommend reduction of emergency class by briefing authorities at the FCP, followed by written summary within 24 hours." NUREG-0610 on page 12, item 9, requests a written summary within 8 hours.
14. The sample emergency messages of Figures 6.1-1 and 6.1-2 need to be developed.
15. Criterion 8, page 46. What other sources of real time meteorological information are there? The plan mentions the Stapleton Airport on page 7-6. In this the only alternative source of meteorological information?
16. Criterion 10, page 46 of NUREG-0654. Criterion 10 requires the operational checking of the emergency equipment at least each calendar quarter and after each use and also calibration of equipment at intervals recommended by the supplier. There is no provision evident in the plan to satisfy this criterion.

17. Criterion 11, page 46 of NUREG-0654. Appendix E in the plan was intended to satisfy this criterion; however, Appendix E is blank. When will it be available for insertion in the plan?
18. Criterion 12, page 46 of NUREG-0654. There is no discussion in the plan of a central point for the receipt and analyses for all field monitoring data.
19. Criterion 1, page 47 of NUREG-0654. Are the parameter values and the corresponding emergency class in the facility emergency procedures as required in criterion 1?
20. Criterion 2, page 47 of NUREG-0654 relates to page 7-3 of the plan. Will the containment monitor go to 108 R per hour, or remain on scale for every conceivable accident sequence?
21. Criterion 3a, page 47 of NUREG-0754. Is there a correlation between the containment monitor reading and the source term?
22. Criterion 5, page 48 of NUREG-0654. Are there meteorological readouts at the nearsite emergency operations center, the technical support center, and the offsite NRC center?
23. Criterion 7, page 48 of NUREG-0654. Does the iodine instrumentation have a capability of reading as low as 5×10^8 microcuries per cc under field conditions in any kind of weather, in spite of the

presence of a radioactive noble gas background? Is there any intention to use silver zeolite cartridges?

24. Criterion 9, page 49 of NUREG-0654. There is no discussion in the plan of the transportation and communication equipment and estimated deployment times.
25. Criterion 1, page 50 of NUREG-0654. There is no time estimate given in the plan as required in Criterion 1 for warning onsite individuals.
26. Criterion 2, page 50 of NUREG-0654. No transportation of onsite personnel is discussed or provided in the plan.
27. Criterion 6c, page 51 of NUREG-0654. There is no mention of radio protective drugs in the plan.
28. Criterion 10m, page 55 of NUREG-0654. There is no discussion of the bases for the choice of recommended protective actions from the plume exposure pathway during emergency conditions. No specific references to bases documents are given in the plan.
29. Criterion 5a, page 57 of NUREG-0654. No specific action levels for decontamination are given in the plan.
30. Criterion 4, page 60 of NUREG-0654. The plan does not provide for periodically estimating total population exposure.

31. Qualification for personnel assigned to functional areas of emergency activities must be identified.
32. Plan states that the Corporate Emergency Director who is located in the Executive Command Post, which is not operational for 90 minutes after an alert is declared, is responsible for notification of State and local agencies concerning recommended protective actions. Please clarify that State and local officials must be notified directly from site within EAL time constraints.
33. Plan must specify the contractors who are to provide technical support.
34. Plan must be revised to resolve the following communication concerns:
 - a. Technical Support Center shows no communications with the NRC.
 - b. Figure 7.2-1 shows communications from TSC to Personnel Control Room, Section 7.1 does not.
 - c. Personnel Control Center does not show communications with the Control Room or Forward Command Post.
35. Expand your plan to provide for periodic dissemination of information to the public regarding how they will be notified and what their actions should be in an emergency. This should include:

- a. Educational information on radiation
- b. Contact for additional information
- c. Sheltering
- d. Evacuation routes

Means for accomplishing this dissemination are:

- a. Information in telephone books
- b. Periodic information in utility bills
- c. Posting in public areas

Information program is acceptable if the permanent and transient adult population within the 5-mile EPZ is provided an adequate opportunity to become aware of this information annually.

If the public information program is to be administered by local officials, this must be stated in the plan.