

DmB

OCT 25 1984

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 your letter dated May 10, 1984 (P-84137), which transmitted an application to amend the Fort St. Vrain (FSV) Technical Specifications related to the helium circulators' overspeed trip setpoint. We find that we require additional information before we can take any final action on your application. Therefore, we request that you respond, in accordance with the provisions of 10 CFR 50.54(f), to the questions and comments contained in the enclosure within 60 days of your receipt of this letter.

If you have any questions on this subject, please contact the NRC Project Manager.

Since this reporting requirements relates solely to FSV, fewer than ten respondents are affected; therefore, OMB clearance is not required by PL 96-511.

Sincerely,

Original Signed By  
E. H. Johnson

E. H. Johnson, Chief  
Reactor Project Branch 1

Enclosure:  
NRC Questions and comments

cc:  
(cont. on next page)

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Enclosure

NRC Questions and Comments on May 10, 1984, Application

1. In the evaluation in Attachment 2 of the application it is stated that: "FSAR Section A.1.13.5 [new reference A.14.5] identifies the maximum credible overspeed condition as 135% of rated, resulting from a rupture of the reheat steam pipe downstream of the circulator, combined with failures of both the control system and the overspeed trip system." How is the speed limited to 135% of rated under these conditions?
2. The evaluation further states that the proposed increase in the trip setting "would still provide the automatic protective actions conservatively prior to the credible overspeed condition (135%) as designed." How has the response time of the protective system been tested to verify that the protective actions are completed conservatively prior to the credible overspeed condition?
3. The evaluation also discussed the circulator disc and blade testing program at 140% of design speed and the testing that determined that blade shedding occurs at 170% of design speed (design speed is 9550 PRM). It is our understanding that these tests, described in FSAR Section A.14.5, "Disc Catcher," refer only to the helium compressor disc and blades and not the steam turbine. At what speed would disc failure or blade shedding of the steam turbine occur and how was this value determined? What other equipment could be damaged by the resulting missiles?
4. The Reference Design Manual, Document DC-21-1, Issue C, was reviewed for background information. In Section 2.6, "General Design Limits," Item d), the Allowable Continuous Speed is stated to be 10,800 PRM-maximum.
  - a. What is the basis for this limit?
  - b. How is compliance with this limit ensured?
5. Our review of the Technical Specification Surveillance Requirements indicates that only the instrumentation components of the circulator trip system are required to be tested. In order to provide assurance of a timely trip, it appears that integrated system testing should be conducted which would verify completion of the trip function within the required response time. Provide a surveillance requirement to incorporate this type of testing.
6. Describe the safety classification of the components of the circulator trip system, including their power supplies.
7. Describe the status of the equipment qualification program required by 10 CFR 50.49(e) and (f) for the components of the circulator trip system.