

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report: 50-267/86-05

License: DPR-34

Docket: 50-267

Licensee: Public Service Company of Colorado  
P. O. Box 840  
Denver, CO 80201

Facility Name: Fort St. Vrain Nuclear Generating Station

Inspection At: Fort St. Vrain Nuclear Generating Station, Piatteville,  
Colorado

Inspection Conducted: January 27-31, 1986

Inspectors:

M. E. Skow  
M. E. Skow, Project Engineer, Project  
Section A, Reactor Projects Branch

2/18/86  
Date

Approved:

J. P. Jaudon  
J. P. Jaudon, Chief, Project Section A,  
Reactor Projects Branch

2/20/86  
Date

Inspection Summary

Inspection Conducted January 27-31, 1986 (Report 50-267/85-06)

Areas Inspected: Routine, unannounced inspection of design changes. The inspection involved 36 inspector-hours onsite by one NRC inspector.

Results: Within the area inspected, no violations or deviations were identified.

8603240036 860307  
PDR ADOCK 05000267  
G PDR

DETAILS

1. Persons Contacted

- \*J. W. Gahm, Manager, Nuclear Production
- \*C. L. Fuller, Station Manager
- \*L. W. Singleton, Manager, Quality Assurance
- \*D. Warembourg, Manager, Nuclear Engineering
- \*R. L. Craun, Nuclear Site Engineering Manager
- \*M. H. Holmes, Nuclear Services Manager
- \*M. J. Ferris, QA Operations Manager
- \*F. J. Borst, Support Services Manager
- \*F. J. Novachek, Technical/Administrative Services Manager
- \*T. Prenger, QA Services Manager
- T. Johnson, Results Senior Engineer
- J. Gawlik, NED Senior Technician

\*Denotes those present at the exit interview.

2. Design Changes

The purpose of this inspection was to ascertain that design changes and modifications that were determined by the licensee to not require approval by the NRC are in conformance with the requirements of the Technical Specifications and 10 CFR 50.59.

The NRC inspector reviewed the following procedures and documents:

<u>Procedure</u>	<u>Issue</u>	<u>Date</u>	<u>Title</u>
ENG-1	9	08-28-85	Control of Changes and Modifications
ENG-2	6	08-28-85	Change Notice (CN) Design Output Packages
ENG-3	9	01-08-86	Control of Design Documents
Q-3	9	09-23-85	Design Control System
TASMAP-7	3	01-10-86	Fort St. Vrain Work Review Committee Guidelines

Change Notices

- 1298
- 1298A
- 2037
- 2110
- 2058
- 1576
- 1391

Controlled Work Procedures

- 85-922
- 85-656
- 85-553
- 83-117, 83-135

Temporary Configuration Report 8221102 (associated with Change Notice 1576)

Some of the Change Notices (CNs) were selected for review from the licensee's report to the NRC of changes, tests, and experiments not requiring prior Commission approval, as required by 10CFR50.59(b). Others were selected that were being performed under revised licensee procedures but which had not necessarily been included in an annual 10CFR50.59(b) report to the NRC. As a result, not all of the CNs had actually been installed and completed.

The NRC inspector reviewed the selected Change Notices (CNs) to verify that they had been reviewed and approved in accordance with regulations, technical specifications, and procedures. The safety evaluations were also reviewed to ensure that the licensee examined potential consequences of system or component failure. Controlled Work Procedures (CWPs) are the licensee's means of controlling the actual installation and testing of the CN. Where CWPs had been prepared for completed CNs, the NRC inspector included the CWPs in the CN review. This overall review also ascertained the adequacy of post modification test and records, as-build drawings, and appropriate controls of the work process. Control Room drawings and other controlled drawings were checked to verify that they had been revised and properly distributed.

While most of those items that the NRC inspector reviewed appeared satisfactory, one CN was noted for further discussion. CN 1576 was a modification to the Plant Protective System (PPS) to prevent a Loop Dump below 20% feedwater flow. (This was the original GA design.)

The functional test that was performed on CN 1576, tested only that there was an inhibit to the Loop Dump signal below 20% feedwater flow. The acceptance criteria was the "contacts are open, resistance [greater than] 0 [ohms]." The functional test did not verify that the inhibit was defeated above 20% feedwater flow or that the inhibit came on and off within a specified tolerance of 20% feedwater flow. The NRC inspector also questioned the zero ohms limit in the acceptance criteria. It is normal that some small line resistance would be observed with closed contacts. These closed contacts as well as dirty open contacts could then pass the acceptance criteria. During discussions with the licensee, the licensee stated that they would reevaluate the functional test and perform appropriate additional tests. The NRC inspector also noted that the CN was issued for document update only and that the Temporary Configuration Report, TCR 821102, covered the physical change and functional testing. The evaluation of the older TCRs and adequate functional testing was discussed in previous NRC inspection reports. NRC Inspection Report 50-267/85-33 cited inadequate safety evaluations of TCRs. NRC Inspection Report 50-267/85-31 discussed post-modification tests in CNs. NRC Inspection Report 85-31 noted that procedure TASMAP-7 was being revised to ensure the adequacy of test procedures. The apparent

inadequate functional test of TCR 821102 and CN 1576 appears similar to the cases noted in the earlier reports. In the opinion of the NRC inspector, the revision to TASMAL-7 that was recently issued provided controls that would have ameliorated the functional test of TCR 821102 and CN 1576.

Since the function test situation of TCR 821102 and CN 1576 was similar to previous NRC findings and because corrective action has been taken to preclude future recurrences, no violation is being issued. However, the reevaluation of the functional test and performance of the appropriate additional tests is considered an Open Item (50-267/8605-01).

3. Exit Interview

An exit interview was held on January 31, 1986, with those personnel denoted in paragraph 1 of this report. The NRC senior resident inspector also attended this meeting. At the meeting, the scope of the inspection and findings were summarized.