

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-267/86-27

License: DPR-34

Docket: 50-267

Licensee: Public Service Company of Colorado (PSC)
P.O. Box 840
Denver, Colorado 80201-0804

Facility Name: Fort St. Vrain Nuclear Generating Station (FSV)

Inspection At: Platteville, Colorado

Inspection Conducted: September 22-26, 1986

Inspectors:

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

10/21/86
Date

W R Bennett
W. R. Bennett, Project Engineer, Project
Section A, Reactor Projects Branch

10/20/86
Date

Approved:

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

10/21/86
Date

Inspection Summary

Inspection Conducted September 22-26, 1986 (Report 50-267/86-27)

Areas Inspected: Routine, unannounced inspection of licensed operator training, nonlicensed staff training, and in-office licensee event report (LER) review.

Results: Within the two areas inspected, one potential violation was identified (failure to perform required reactor manipulations, paragraph 5). In accordance with Commission Policy Statement on Training and Qualification of Nuclear Power Plant Personnel (50 FR 11147), this potential violation will be treated as an unresolved item.

DETAILS1. Persons ContactedPSC

- *L. W. Singleton, Manager, Quality Assurance
- *M. H. Holmes, Nuclear Licensing Manager
- *F. J. Novachek, Technical/Administrative Services Manager
- *M. J. Ferris, Quality Assurance Operations Manager
- *F. J. Borst, Support Services Manager
- *D. Evans, Superintendent of Operations Acting for Station Manager
- *A. L. Greenwood, Supervisor, QA Auditing
- *S. Willford, Superintendent of Training
- *R. E. Rivera, Operations Training Supervisor
- R. O. Hooper, Technical Training Supervisor
- D. L. Frye, Nuclear Licensing Senior Specialist
- O. R. Lee, III, QA Technician, Auditing
- S. Rima, Training Instructor (HP)
- C. Stollay, Training Instructor
- J. Switzer, Supervisor, Training Support
- W. Peggram, Training Instructor

Stone & Webster

- *J. W. Rodell, Nuclear Engineering Department

The NRC inspectors also contacted other licensee personnel including administrative, clerical, training, and operations personnel.

- *Denotes those attending the exit interview.

2. Status of Previously Identified Open Items

The following Open Items were reviewed and closed. Discussion is included in paragraph 4.

- (Closed) Open Item 267/8402-02, Maintenance Training Lesson Plans
- (Closed) Open Item 267/8402-03, Results Lesson Plans

3. In-office Review of LERs

The purpose of this portion of the inspection was to ascertain whether additional reactive inspection effort or other NRC response is warranted, corrective action appears appropriate, information satisfies reporting requirements, and generic issues may be present.

The following LERs were reviewed and are closed:

<u>LER No.</u>	<u>Title</u>
86-007	"A" Circulator Trip
86-008	Inoperable Mechanical Snubbers
86-009	Operation in Violation of LCO 4.4.1
86-010	Loop II Shutdown Due to Operator Error
86-011	Loop II Shutdown During Performance of SR 5.4.1.2.8b-M
86-012	Incorrect ISS Position RWP Received During Shutdown
86-014	Spurious RWP Actuations
86-015	Spurious RWP Actuations
86-017	Loop Shutdown Actuations
86-018	Inadvertent Low Reactor Pressure Scram

The following LERs were reviewed and remain open:

86-013	Operation Prohibited by Technical Specifications
86-016	Hydraulic Power System Surveillance Not Completed Within Specified Time

Both of these LERs appear related to completing surveillance requirements within specified time periods. The cause of both of these LERs was attributed by the licensee to personnel error. The NRC Systematic Assessment of Licensee Performance (SALP) (NRC Inspection Report 50-267/86-12) noted that the licensee had "a weak tracking system." The licensee response to the SALP, P-86535, dated August 29, 1986, stated that "improvement of the surveillance tracking program is being included as a part of the 1987 corporate planning process." LERs 86-013 and 86-016 remain open pending completion of surveillance tracking program improvements and a review of the effectiveness of the improvements by the NRC.

86-019	Transient That Increased Reactor Power Above 35%
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This LER is related to Violation 267/8616-01 and will remain open pending resolution and closure of the violation.

86-020	Reanalysis of Steam Generator Cooling with Firewater following 90 Minute LOFC
86-021	Single Failure Points Identified in Firewater Cooling Flowpaths
86-022	Effects on 480 VAC Essential Switch Gear Due to Loss of DC Bus 1

The three LERs above all have a cause stated as relating to design error. These LERs will remain open pending resolution by the licensee and review by the NRC.

4. Nonlicensed Staff Training

The purpose of this portion of the inspection was to evaluate the effectiveness of the training programs for the nonlicensed staff. In this regard, the NRC inspector reviewed the following documents:

<u>Document Number</u>	<u>Rev.</u>	<u>Date</u>	<u>Title</u>
SMAP-16	1	2-28-85	Maintenance Department Personnel Training
TMP 4.1	2	3-20-86	Training Program Evaluation
TMP 3.3	2	6-19-86	Curriculum Development

Lesson Plans:

IC 004.00	Instructor Guide for Control Rod Drive Instrumentation
MM 0100.00	Instructor Guide for Spare Parts Procurement

The NRC inspector also attended the licensee's General Employee Training class. Course content appeared to be complete and the instructor was able to adequately field questions. Student attention was maintained throughout.

NRC Inspection Report 50-267/84-02 noted concerns in the areas of maintenance training. This inspection concentrated on those areas. To address the concerns raised by that report, that the licensee did not have lesson plans or a method of evaluation for the training, the licensee issued procedure SMAP-16. This procedure defined a training program for maintenance personnel, provided instructions for documenting the training, and provided guidelines for evaluation. The program appeared to be implemented. More recently, the licensee's training department has issued procedures TMP 4.1 and TMP 3.3 which provide for curriculum development and training evaluation. The lesson plans that were reviewed appeared to be adequate. The licensee had prepared examinations on file. To remove the redundant requirements, the licensee stated that SMAP-16 will be revised to delete those measures that were temporarily included until permanent measures were adopted in the TMPs. Open Items 267/8402-02 and 267/8402-03 are closed.

The NRC inspector, during the course of the inspection, discussed training not only with the training department personnel but also with personnel in other departments. No violations or deviations were noted.

5. Licensed Operator Training

The purpose of this portion of the inspection was to evaluate the effectiveness of the licensed operator training program.

The NRC inspectors reviewed Fort St. Vrain Procedures TPAM-OP, "Operations Department Training Program," Issue 10, dated March 17, 1986, and TP-LR, "Training Procedure - Licensed Operator Requalification," Issue 1, dated April 28, 1986, to determine the adequacy of the program for licensed operator requalification.

Licensed operators are required to attend all lectures during the requalification cycle and to pass a unit examination on each lecture. If a lecture is missed, it must be made up. If less than 80% is scored on a unit exam, the individual must take and pass a makeup exam. The NRC inspectors sampled requalification unit examinations and found them to be representative and accurate.

The NRC inspectors reviewed five annual Senior Reactor Operator (SRO) examinations. Due to apparent inconsistencies between the answer key and grading on the tests, the NRC inspectors requested that all five tests be regraded. Initial results of the regrading showed general lowering of all grades with a potential problem indicated in one section of the tests. Two individuals went from a passing grade to a failing grade. The NRC inspectors requested that two more SRO tests be completely regraded and that the one potential problem section be regraded on all SRO tests. The regrading showed no further problems and further review upgraded the two SRO tests mentioned above to passing grades. These two tests were subsequently reviewed by the Region IV Licensed Operator Branch which had no comments on the grading. The NRC inspectors noted that the same SRO test was given over a time span of more than 2 weeks. The licensee stated that only one SRO test had been prepared and administered. The NRC inspectors expressed concern over the potential for compromising the test when only one test was prepared. The licensee committed to prepare and administer at least two Reactor Operator (RO) and SRO tests for requalification in the future.

The NRC inspectors reviewed requalification lecture schedules, lecture plans, and training records of several SROs and ROs. The NRC inspectors noted that several required reactor manipulations had been missed by various operators during the last requalification cycle (June 1984 - June 1986). This potential violation will be treated as an unresolved item (267/8527-01). The root cause of both the grading problem and the

missed reactivity manipulations appears to be the shortage of SRO-qualified personnel in the training department.

Interviews with operation department and training department personnel demonstrated that good communications exist between the departments for allowing operations input into the determination of training needs. Training development requests (TDRs) and results of annual requalification examinations are utilized in scheduling training for the requalification period. A program is in the process of being started which will allow yearly personnel evaluations to be incorporated into this scheduling. The training department reviews all LERs and significant events from other sites for inclusion in the requalification program.

No violations or deviations were identified in this portion of the inspection.

6. Status of INPO Training Accreditation

The licensee appears to be making satisfactory progress toward INPO accreditation of its training program. The licensee stated that the program for SROs, ROs, and nonlicensed operators is complete. The licensee expects to be complete with maintenance training by October 20, 1986. The licensee stated that they are redoing their program for technical advisor. They expect to implement 20% of that program for a trial in November 1986. The NRC inspectors found that progress appeared to be as stated by the licensee.

7. Exit Interview

An exit interview was held on September 26, 1986, with those personnel denoted in paragraph 1 of this report. The NRC Senior Resident Inspector and Resident Inspector also attended this meeting. At the meeting, the scope of the inspection and findings were summarized.