

3 MAY 10 1982

Docket: 50-267/81-26

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

Gentlemen:

This refers to the Systematic Assessment of Licensee Performance (SALP) Board Report of the Fort St. Vrain Nuclear Station. The SALP Board met on September 1, 1981, to evaluate the performance of the subject facility for the period July 1, 1980, through June 30, 1981. The performance analyses and resulting evaluation are documented in the enclosed SALP Board Report. These analyses and evaluation were discussed with you onsite on October 23, 1981.

The performance of your facility was evaluated in the selected functional areas identified in Section IV of the enclosed SALP Board Report.

The SALP Board evaluation process consists of categorizing performance in each functional area. The categories which we have used to evaluate the performance of your facility are defined in Section II of the enclosed SALP Board Report. As you are aware, the NRC has changed the policy for the conduct of the SALP program based on our experiences and the recently implemented reorganization which emphasizes the regionalization of the NRC staff. This report is the product of the revised policy.

Any comments which you may have concerning our evaluation of the performance of your facility should be submitted to this office within 20 days of the date of this letter. Your comments, if any, and the SALP Board Report, will both appear as enclosures to the Region IV Administrator's letter which issues the SALP Report as an NRC Report. In addition to the issuance of the report, this letter will, if appropriate, state the NRC position on matters relating to the status of your safety program.

Comments which you may submit at your option, are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

RPS-A
TWesterman/dsm
4/8/82

RPB1 *3m*
GMadsen
4/28/82

DRRP&EP *JKW*
JGagliardo
4/28/82 *X*

DRA
KSeifrit
4/ /82

RA/RIV
JCollins
4/30/82

8207130409 820616
PDR ADDOCK 05000267
P PDR

IEO1

Public Service Company of
Colorado

2

10 MAY 1982

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

"Original Signed by:
G. L. MADSEN"

G. L. Madsen, Chief
Reactor Project Branch 1
(SALP Board Chairman)

Enclosure:
Appendix - NRC Report 50-267/81-31

CC:

D. W. Warembourg, Nuclear Production Manager
Fort St. Vrain Nuclear Station
P. O. Box 368
Platteville, Co 80651

J. Gahm, Quality Assurance Manager
(same address)

none at this time
cc to DMB (IE01)

BC
PM
AEOD
ELD
IE FILE
IE/RPRIB
NRR/DHFS
NRR/OLB
RAD ASMT BR
RESEARCH
PDR:HQ
LPDR
NSIC
NTIS

bcc distrib. by RIV:
T. Westerman
M. Dickerson
G. Plumlee
G. Madsen
J. Miller, SPB
TPB
RPB2
J. Collins
Info System
RIV File
~~COLORADO STATE DEPT. - HEALTH~~

Appendix

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

Systematic Assessment of Licensee Performance

Report: 50-267/81-26

Docket: 50-267

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

Facility Name: Fort St. Vrain

Appraisal Period: July 1, 1980-June 30, 1981

Licensee Meeting: October 23, 1981

SALP Board: G. L. Madsen, Chief, Reactor Project Branch 1
T. F. Westerman, Chief, Reactor Project Section A
J. R. Miller, Chief, Special Projects Branch
M. W. Dickerson, Senior Resident Inspector, Region IV
G. L. Plumlee, Resident Inspector, Region IV

Reviewed by:

T. F. Westerman

4/28/82

Date

T. F. Westerman, Chief
Reactor Project Section A

Approved by:

G. L. Madsen
G. L. Madsen, Chief
Reactor Project Branch 1

4/28/82

Date

I. Introduction

The NRC established a Systematic Assessment of Licensee Performance (SALP) program. This SALP program is an integrated NRC staff effort to collect available observations and data on a predetermined schedule and to evaluate licensee performance based on these observations and data. Emphasis is placed upon NRC understanding the licensee's performance in the 14 functional areas listed in the body of the report and discussing and sharing this understanding with the licensee. SALP is an integrated part of the regulatory process used to assure licensee's adherence to the NRC rules and regulations. SALP is oriented toward furthering NRC's understanding of the manner in which: (1) the licensee management directs, guides, and provides resources for assuring plant safety; and (2) such resources are used and applied. The integrated SALP assessment is intended to be sufficiently diagnostic to provide meaningful guidance to licensee management related to quality and safety of plant operation, modifications, and new construction.

The NRC SALP Board composed of NRC personnel who are knowledgeable of the licensee activities, met on October 22, 1981, to review the collection of data and observations to assess the licensee's performance in the 14 selected functional areas.

This SALP report is the SALP Board's assessment of the licensee's safety performance at the Fort St. Vrain during the period of July 1, 1980, to June 30, 1981.

The results of the SALP assessments in the selected functional areas were discussed with the following licensee's personnel at a meeting held on October 22, 1981:

Licensee Personnel

- O. Lee, Vice President, Production
- D. Warembourg, Manager, Nuclear Production
- L. Brey, Manager, Nuclear Engineering
- J. Gahm, QA Manager
- M. McBride, Technical/Administrative Services Manager
- T. Borst, Radiation Protection Manager

II. Criteria

Licensee performance is assessed in 14 selected functional areas. Each of these functional areas represents an area significant to nuclear safety and its related environment and is a programmatic area for the NRC inspection program.

Evaluation criteria as listed below were used, as appropriate, in each of the functional area assessments:

1. Management involvement in assuring quality
2. Approach to resolution of technical issues from safety standpoint
3. Responsiveness to NRC initiatives
4. Enforcement history
5. Reporting and analysis of reportable events
6. Staffing (including management)
7. Training effectiveness and qualification

In addition, SALP Board members considered other criteria, as appropriate.

Based upon the SALP Board assessment, each functional area evaluated is classified in one of the three performance categories. The definition of these performance areas is:

Category 1: A combination of attributes which demonstrates achievement of superior safety performance; i.e., licensee management attention and involvement are aggressive and oriented toward nuclear safety; licensee resources are ample and effectively used such that a high level of performance with respect to operational safety or construction is being achieved. Reduced NRC attention may be appropriate.

Category 2: A combination of attributes which demonstrates achievement of satisfactory safety performance; i.e., licensee management attention and involvement are evident and are concerned with nuclear safety; licensee resources are adequate and are reasonably effective such that satisfactory performance with respect to operational safety or construction is being achieved. NRC attention should be maintained at normal levels.

Category 3: A combination of attributes which demonstrates achievement of only minimally satisfactory safety performance; i.e., licensee management attention or involvement is acceptable and considers nuclear safety, but weaknesses are evident; licensee resources appear to be strained or not effectively used such that minimally satisfactory performance with respect to operational safety or construction is being achieved. Both NRC and licensee attention should be increased.

III. Summary of Results

The licensee's performance level was evaluated as Category 3 in one functional area, and Category 2 in the remaining functional areas. Two areas within the functional areas were evaluated as Category 1.

IV Performance Analysis

A. Plant Operations

1. Analysis

Twelve inspections were made by the resident inspectors, each covering inspections of plant operations for a 1-month period. These inspections resulted in 16 violations, and two significant unresolved items. Ten of the violations can be grouped as failure to follow procedures, three as Technical Specification violations, and three as due to equipment or equipment design problems. Additionally, one of the violations for failure to follow procedures had two examples. The violations and significant items were:

- (a) Infraction (Severity Level 2): Failure by two individuals to comply with protective clothing requirements for an RWP area.
- (b) Infraction (Severity Level 2): Rod position recorder found not working for a period of 8 days, contrary to the requirement of ADM 28 and Procedure P-1.
- (c) Severity Level V Violation. Two valves required to be sealed in position were found with no locking device, contrary to OPOP 1 sealed valve list requirements.
- (d) Severity Level IV Violation. Concentration of tritium in cooling tower blowdown water discharge exceeded the Technical Specification limit. (Identified by licensee)
- (e) Severity Level IV Violation. The Technical Specifications required annual calibration and functional test of the fuel storage facility cooling system flow indicators, and flow temperature alarms had not been performed. Fuel Storage Well No. 5 contained fuel.
- (f) Severity Level IV Violation. Temporary changes made to procedures that were not reviewed by PORC within the Technical Specification limit of 14 days.

- (g) Severity Level V Violation. Contrary to Procedure SOP 11, Valve V-1110-57, Valve Stem Gland Packing Vent was not locked as required by SOP.
- (h) Severity Level V Violation. Concentration of tritium in cooling tower blowdown water discharge exceeded the Technical Specification limit. (Identified by licensee)
- (i) Severity Level IV Violation. Concentration of tritium in cooling tower blowdown water discharge exceeded the Technical Specification limit. (Identified by licensee)
- (j) Severity Level IV Violation. Contrary to Procedure P-2 requirement, two deviation forms initialed as equipment normal were still in the Systems Abnormalities Book, although System Status Tags were still in place on the specified equipment.
- (k) Severity Level VI Violation. Concentration of residual chlorine exceeded the Technical Specification LCO NR for chlorine.
- (l) Severity Level VI Violation. Concentration of total phosphate exceeded the Technical Specification SRN 1.(b), 50 percent limit, which requires daily samples to be taken. No daily samples were taken.
- (m) Severity Level VI Violation. No checks of the conductivity cell were made monthly against a known standard solution as required by Technical Specification SR NR 1.1(d).
- (n) Severity Level VI Violation. Contrary to the requirement of Procedure ADM-13, 17 or 20 weekly surveillances, NR 1.1-W, "Chemical Concentrations," were started on a Friday, but approval to initiate the surveillance was not given until the following Monday. Three of the surveillances were approved the following Tuesday. Monthly Surveillances, NR 1.3-W, Turbine Building Sump, were started at the beginning of the month but approval to initiate the surveillances were not given until the end of the month.
- (o) Severity Level V Violation.

- (1) The Effluent Activity Monitor Printer RR93256 was not reading properly in that the printer had been secured for 8 hours. This is contrary to the requirement of Procedure P-1.
- (2) The Area Activity Monitor Recorder RR 93254 was not indicating for 3 hours following the completion of a surveillance test, contrary to the requirement of the Surveillance SR 5.4.9-W "Area Monitor Functional Test."
- (p) Severity Level VI Violation. Contrary to the requirement of Procedure P-2, nine Standard Clearance Points forms with auxiliary tags had not been checked off, as required.
- (q) Unresolved Item. Eight Standard Clearances (Single Point Clearances) did not have approval signatures or dates.
- (r) Unresolved Item. Radiation Process Instrument RIS 6314-2 was found in the by-pass condition, untagged, and it was not logged as by-passed. (Surveillance Procedure)

2. Conclusions

It is apparent that management attention is required to reduce the number of violations due to failure to follow procedures and to avoid exceeding Technical Specification limits.

The SALP Board's assessment of this functional area is classified as a Category 3 performance level.

3. Board's Recommendations

Both NRC and licensee's attention should be increased.

B. Refueling

1. Analysis

Four inspections of refueling activities were made by the resident inspectors. One violation was identified. No significant unresolved items were found. The violation was:

- (a) Severity Level V Violation. Contrary to Technical Specification and Health Physics Procedures, the north stairwell access to the refueling floor was not clearly marked in that the radiation barrier was not in place.

2. Conclusions

The SALP Board's assessment of this functional area is classified as a Category 2 performance level.

3. Board Recommendations

NRC's attention should be maintained at a normal level.

C. Maintenance

1. Analysis

Twelve inspections of maintenance activities were made. Eleven of the inspections were made by the resident inspectors and one was made by the Reactor Project Branch. These inspections resulted in two violations, one of which had two examples. No significant unresolved items were found. The violations were:

- (a) Severity Level V Violation. Contrary to Procedure G-2, appropriate procedure revisions were not obtained and a device was installed on a stack filter to monitor degradation of the charcoal filters. One page of the change notice was known to be incorrect and required changes from the indicated installation.
- (b) Severity Level V Violation.
 - (1) Contrary to Procedure P-7, no entries were made in the job briefing block on seven Plant Trouble Reports (later determined to be authorized on the PTR for personnel safety briefings and not necessary for technical adequacy on plant safety).
 - (2) Contrary to Procedure P-7, no entries were made in the required block for post maintenance test requirements in five PTR's.

2. Conclusions

It is understood that the licensee is rewriting the Maintenance Procedures. The SALP Board's assessment of this functional area is classified as a Category 2 performance level.

3. Board's Recommendations

NRC's attention should be maintained at a normal level.

D. Surveillance and Inservice Inspection

1. Analysis

Fourteen inspections were made in the surveillance area. No independent inservice inspection requirements now exist. Twelve inspections were made by the resident inspectors and one was made by the Engineering Inspection Branch. Two violations and one significant unresolved item resulted from the inspections.

- (a) Severity Level V Violation. Two maintenance personnel and one results individual were observed exiting from an RWP area, whereby the maintenance individuals failed to check their clothing for contamination and the results individual failed to perform a contamination check on his hands, clothing, and shoes. This is contrary to the requirements of Administrative Procedures P-1, "Plant Operations."
- (b) Severity Level IV Violation. Contrary to the requirements of Procedure ADM-13, "Technical Specification Surveillance," data records and review were found to be incomplete.
- (c) Unresolved Item. The measures used to assure the release of all of the reserve shutdown material were not deemed acceptable.

2. Conclusions

Proper attention by licensee personnel to surveillance data and review was discussed. Procedure ADM-13, "Technical Specification Surveillance" is being revised to clarify procedural requirements.

This area is classified as a Category 2 performance level by the SALP Board.

3. Board's Recommendations

NRC's attention should be maintained at a normal level.

E. Personnel, Training, and Plant Procedures

1. Analysis

Eight inspections were made in this area, five by the resident inspectors, two by the Reactor Project Branch, and one by the Engineering Inspection Branch. No violations or significant unresolved items were found during the inspections.

2. Conclusions

With reference to plant procedures, it should be noted that a number of violations have been caused by failure to follow procedures as identified in the applicable functional areas.

In the area of training, the licensee has demonstrated a high level of performance in both program and implementation. The SALP Board's assessment of the functional area is classified as Category 1 performance level. In the areas of personnel and plant procedures, the SALP Board's assessment is classified as Category 2 performance level. An overall rating of Category 2 performance level is assigned to this functional area.

3. Board's Recommendations

In the area of training, reduced NRC's attention may be appropriate. In the other areas, NRC's attention should be maintained at a normal level.

F. Fire Protection and Housekeeping

1. Analysis

No inspections were made in this area as a result of a specific Fire Protection and Housekeeping module. However, it should be noted that both areas are inspected periodically during each time that the module for Operational Safety Verification is inspected. Results of the latter inspections are discussed under Plant Operations.

2. Conclusion

The licensee's performance level in this area is classified as a Category 2 by the SALP Board.

3. Board's Recommendations

NRC's attention should be maintained at a normal level.

G. Design Changes and Modifications

1. Analysis

Two inspections were made in the area of design changes and modifications. One was made by the Reactor Project Branch and one was made by the Engineering Inspection Branch. The inspections resulted in one violation. No significant

unresolved items were found. It should also be noted that inspections of design changes and modifications are made periodically by the resident inspectors under the module for Operational Safety Verification. The violation was:

- (1) Infraction (Severity Level 2): Contrary to the requirements of Procedure FSV-ENG-1, "Procedure for Control of Changes and Modifications," the design documents listed on the Document Update List for CN 1156 and CN 1202 were not stamped to indicate that they were affected.

2. Conclusion

The licensee's performance level in this area is classified as Category 2 by the SALP Board.

3. Board's Recommendations

NRC's attention should be maintained at a normal level.

H. Radiation Protection, Radioactive Waste Management and Transportation

1. Analysis

No inspections were made in this area. However, it should be noted that the areas are inspected periodically during each time that the module for Operational Safety Verification is inspected. Results of the latter inspections are discussed under Plant Operations. It should also be noted here that there have been several problems associated with radiation protection. The violations relative to these are discussed under the areas where they were found, but it would appear that because of the lack of general problems with contamination and radiation at Fort St. Vrain because of the HTGR concept, there is also a lack of concern by the individual personnel. This area, therefore, does need more emphasis by plant supervisory and management personnel.

2. Conclusion

The licensee's performance level in this area is classified as Category 2 by the SALP Board.

3. Board's Recommendations

NRC's attention should be maintained at a normal level.

I. Environmental Protection

1. Analysis

Three inspections were made by the resident inspectors of Environmental Protection. No violations or significant unresolved items were found as a result of the inspections.

The eight licensee event reports relating to non-radiological Technical Specification reportable occurrences were discussed.

2. Conclusion

The licensee's performance level in this area is classified as Category 2 by the SALP Board.

3. Board's Recommendations

NRC's attention should be maintained at a normal level.

J. Emergency Preparedness

1. Analysis

Four inspections of Emergency Preparedness were made by the resident inspectors. No violations or significant unresolved items were found during the inspections.

2. Conclusions

The licensee's performance level in this area is classified as Category 2 by the SALP Board.

3. Board's Recommendations

NRC's attention should be maintained at a normal level.

K. Security and Safeguards

1. Analysis

Six inspections were made in the area of security and safeguards. Three were made by the Physical Security Section of the Technical Inspection Branch, and three were made by the resident inspectors. As a result of these inspections, three violations were identified, one with two examples. No significant unresolved items were found, although the violations found caused concern relative to the overall management of the Physical Security Program.

Fort St. Vrain has steadily improved since the January 23, 1981, management meeting held in Region IV. The management meeting focused on multiple deficiencies of the security hardware at Fort St. Vrain. The involvement and commitment of corporate management has greatly improved the overall security of Fort St. Vrain.

2. Conclusion

The licensee's performance level in this area is classified as Category 2 by the SALP Board.

3. Board's Recommendation

NRC's attention should be maintained at a normal level.

L. Audits, Reviews, and Committee Activities

1. Analysis

Eight inspections were made in these areas. One was made by the Reactor Project Branch, two were made by the Engineering Inspection Branch, and five were made by the resident inspectors. No violations or significant unresolved items were identified as a result of the inspections.

2. Conclusion

The licensee's performance level in this area is classified at Category 2 by the SALP Board.

3. Board's Recommendation

NRC's attention should be maintained at a normal level.

M. Administration, QA, Records, and Procurement

1. Analysis

Eight inspections were made in these areas. Three inspections were made by the Reactor Project Branch, two were made by the Engineering Inspection Branch, two were made by the resident inspectors, and one was the first annual management meeting held to discuss the region's evaluation of the licensee's performance for the period of October 1, 1979, through October 1, 1980. Additional inspections in these areas are also made periodically under the module for Operational Safety Verification. Two violations resulted, one with four examples. Additionally, one significant unresolved item was found. The violations and unresolved items were:

- (a) Severity Level V Violation. Contrary to the requirements of Criterion V of 10 CFR Part 50, Appendix B, and the licensee's Procedures:
 - (1) The licensee's standard forms "N" (the purchase order attachment used to specify requirements for cleanliness, packaging, handling, storage, and shipment) were not included in the purchase order records reviewed.
 - (2) The standard form "N" selected for attachment to individual purchase orders was not made available at receiving inspection.
 - (3) The specified criterion, document number, or description was not recorded on the purchase orders reviewed.
 - (4) The licensee's Purchase Order N3222 did not contain the applicable paragraphs from FSV-STD-1.
- (b) Severity Level V Violation. Attachment Q-4B to licensee Procedure Q-4 did not provide information sufficient to make the required quality-related determination for either electronic parts or fuel. This is contrary to the requirements of Criterion II, 10 CFR Part 50, Appendix B, as amplified by the licensee's Quality Assurance Program for Plant Operations.
- (c) Unresolved Item. One incorrect and several torn drawings were found in the Control Room set of drawings.

2. Conclusions

The licensee's performance level in the areas of administrative, records, and procurement is classified as Category 2. The licensee's performance level in the area of QA is considered to be Category 1.

3. Board's Recommendation

NRC's attention should be maintained at a normal level in the areas of administrative, records, and procurement. The area of QA may be considered for reduced NRC attention.

N. Corrective Actions and Reporting

1. Analysis

Fifteen inspections were made of the licensee's Corrective Action and Reporting Functions. Twelve of the inspections were

made by the resident inspectors, two were made by the Reactor Project Branch, and one was made by the Engineering Inspection Branch. Two violations and one significant unresolved item resulted in the items which follow. In addition, replies to the violations contained in NRC Inspection Reports 81-11 and 81-12 were overdue when received by the NRC.

- (a) Severity Level IV Violation. Contrary to the requirements of 10 CFR 50, Appendix B, Criterion II, or augmented by licensee's QA Program for Operations and ANSI 18.7-1972, "Equipment Control Procedures," the licensee's equipment control procedures did not include a requirement that an independent verification be performed to ensure that necessary measures, such as tagging equipment, had been implemented.
- (b) Severity Level IV Violation. Through discussions with licensee personnel and from review of the licensee's response and supporting data to IE Bulletin 80-11, it was determined that those systems associated with 16 masonry walls found to be structurally inadequate were not described, analyzed for operability, and subsequently reported to the NRC as required by the bulletin and by the Technical Specifications.
- (c) Unresolved Items. Outstanding Quality Assurance Deficiency Reports and Corrective Action Requests were not being completed within the time frame promised or a reasonable amount of time.

2. Conclusion

The licensee's performance level in this area is classified as Category 2.

3. Board's Recommendation

NRC's attention should be maintained at a normal level.

V. Supporting Data and Summaries

A. Noncompliance Data

Functional Area	Investigation & Inspection Manhours	Noncompliances and Deviations						Classification* Dev		
		I	II	III	IV	V	IV	Vio.	Inf.	Def
1. Plant Operations	1155				5	4	5			2
2. Refueling Operations	32						1			
3. Maintenance	232						2			
4. Surveillance & Inservice Testing	235					1	1			
5. Personnel, Training & Plant Procedures	65									
6. Fire Protection & Housekeeping	---									
7. Design Changes & Modifications	55									
8. Radiation Protection, Radioactive Waste Management & Transportation	2									
9. Environmental Protection										
10. Emergency Preparedness										
11. Security & Safeguards	127									3
12. Audits, Reviews & Committee Activity	31									
13. Administration, QA Records, Procurement	62						2			
14. Corrective Actions & Reporting	84					1		1		
TOTALS	2080									

NOTE: There were additional 631 hours of Entrance/Exit Meeting, Management Meetings such as previous SALP, Independent Inspection, IEB and IEC Follow up, LER Follow up, etc.

B. Licensee Event Reports (LER's)

The Regional SALP Board reviewed the LER's for the period of July 1, 1980, through June 30, 1981. The previous evaluation period for 1979-1980 was reviewed for causally-linked LER's.

The classification and number of LER's during this report period are as follows:

	<u>Number</u>
Component Failure	32
Design/Fabrication	7
Personnel Error	11
Defective Procedures	1
Others	28
Causally-linked	16

Causally-linked LER's are identified in the table below.

Causally-linked LER's

DESCRIPTION	RELATED LER's
1. Hydraulic Class 1 Snubbers found inoperable	81-040, 81-032, 80-54, 80-47, 80-27, 80-04
2. Hydraulic Class 1 Snubbers taken out-of-service individually for maintenance	81-038, 81-026, 80-65, 80-61
3. Liquid Waste Release System problems	81-036, 81-034, 81-013, 80-67, 80-52
4. Total primary coolant oxidants out of specification	81-027, 81-020, 81-015, 81-009, 80-75, 80-66, 80-59, 80-43, 80-36, 79-49
5. LN ₂ storage tank level out-of-specification	81-025, 81-021, 81-011, 80-39
6. Buffer-Mid-Buffer switch setting out-of-specification	81-024, 81-016, 81-006, 80-72, 80-51, 80-41, 80-34, 80-26, 80-20, 80-16, 80-07, 79-56, 79-32
7. Non-Radiological technical specification reportable occurrences	81-039, 81-022, 81-004, 81-002, 80-73, 80-55, 80-40, 80-38

DESCRIPTION	RELATED LER's
8. Steam pipe rupture ultrasonic detector channels out-of-specification as a result of previous gain adjustments made to stop spurious trips	81-012, 80-48
9. PCRV cooling water temperature limits were out-of-specification	81-007, 81-001, 80-46
10. Emergency Feedwater to helium circulator pelton drives isolated	81-019, 80-53, 80-32, 80-23, 80-15
11. Diesel engine exhaust temperature trip circuit malfunction	81-035, 80-64, 79-20
12. Helium circulator speed modifier circuit resistance changes	80-71, 79-41
13. Helium circulator bearing water differential pressure set point drift	81-005, 79-60
14. Primary coolant pressure transmitter voltage drift	81-030, 81-008, 79-57
15. Primary coolant moisture monitor flow out of calibration	80-13, 79-62
16. Polisher resin inadvertently discharged	80-38, 80-35

The most significant of the causally-linked LER's is the buffer-mid-buffer switch setting drift (Item 6 in the above table). The licensee has initiated design changes to modify and replace existing instrument. The licensee's program has, in most cases, identified repeatable LER's.

C. Management Conferences

A management meeting was held in January 1981 to discuss security program problem areas as discussed in section IV.12 of this report.

D. NRR Performance Evaluation

See Enclosure 1 attached.

ENCLOSURE 1

NRR PERFORMANCE EVALUATION
SALP - CYCLE 2

Fort St. Vrain Docket: 50-267 George Kuzmycz, LPM
Appraisal Period: July 1, 1980 - June 30, 1981

1. Performance Elements

- a. The quality of responses and submittals is very good, although the amount of details presented supporting their responses in sometimes insufficient to support a determination if the reviewer is not familiar with HTGRs.
- b. The licensee reviews all generic and TMI related requests in detail to determine the applicability of requirements intended for water reactors to HTGRs. The licensee's efforts, on the whole, are timely and responsive to NRC requests. Anticipation of NRC needs is lacking but this is generally due to the absence of a users group since GAC is not active in the reactor market, and a small amount of NRC regulations written specifically for HTGRs.
- c. Due to fact that the licensee must interpret NRC regulations to determine the intent and applicability to HTGRs, working knowledge of regulations, guides and standards is satisfactory.
- d. Technical competence of the licensee is satisfactory. Many problems, unforeseen in a new reactor concept, have been resolved.
- e. Licensee's conduct of meetings with NRR has sometimes been frustrating. Each time a reviewer must become familiar with the specific problems imposed by the HTGR and must familiarize himself with the specifics of the HTGR.
- f. Public Service Company of Colorado has recently undergone a reorganization; it is difficult, as yet, to determine the organization and management capabilities.
- g. The operators have been given one examination during the appraisal period by B. Wilson. All four senior reactor operators and one reactor operator passed. The operators have a good knowledge of reactor operation and have successfully controlled several transients and a loss of forced circulation.

2. Observed trends in performance

Total	1	2	3	4	5	6	7	8	9	10	11	12
1979	50	4	2	0	3	1	2	4	11	4	14	3
1980	78	5	4	10	3	6	7	8	4	8	7	10
1981	27(part)	10	9	5	0	3						6

As can be seen from the above table listing LERs each month since 1979, the number seems to be increasing. This is due mainly to the fact that Public Service of Colorado has been operating Fort St. Vrain at 70 percent power and has not "debugged" all the problems. Public Service of Colorado is scheduled to implement a design change at the end of this year which, it is expected, would eliminate some of the LERs.

3. Public Service of Colorado main strength is the ability of the operators to handle any unforeseen deviations in reactor operation; they have successfully controlled a loss of forced circulation and a two-loop dump. The inherent safety features of an HTGR contribute to the operators' poise since they have 2 hours to implement corrective action and are not faced with as large stresses as water reactor operators.
4. Overall, the licensee's performance level is classified as Category 2.

U.S. NUCLEAR REGULATORY COMMISSION

PRINCIPAL INSPECTOR (Name, last, first, and middle initial)

M.W. Dickerson

REVIEWER

T.F. Westerman

INSPECTOR'S REPORT
Office of Inspection and Enforcement

INSPECTORS

G.W. Madsen, chief, Reactor Project Branch #1

T.F. Westerman, chief, Reactor Project Section

J.R. Miller, Chief, Special Project Branch
M.W. Dickerson, Senior Resident Inspector

G.L. Plunier, Resident Inspector

LICENSEE/VENDOR

TRANSACTION TYPE

DOCKET NO. (8 digits) OR LICENSE
NO. (BY PRODUCT) (13 digits)

REPORT

NEXT INSPEC. DATE

Public Service Co. of Col.
P.O. Box 8200
Denver, Col. 80201

- I - INSERT
- M - MODIFY
- D - DELETE
- R - REPLACE

0500267

8126

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C

D

14 15 16

PERIOD OF INVESTIGATION/INSPECTION

INSPECTION PERFORMED BY

ORGANIZATION CODE OF REGION/HQ CONDUCTING ACTIVITY (See IEMC 0530 "Manpower Reporting—Weekly Manpower Reporting" for code.)

REGION DIVISION BRANCH

FROM TO

MO. DAY YR MO. DAY YR.

20 25 26 31

32

33

34

35

REGIONAL ACTION

(Check one box only)

1 - NRC FORM 581

2 - REGIONAL OFFICE LETTER

X

36

TYPE OF ACTIVITY CONDUCTED (Check one box only)

02 - SAFETY

03 - INCIDENT

04 - ENFORCEMENT

05 - MGMT. AUDIT

37-38

06 - MGMT. VISIT

07 - SPECIAL

08 - VENDOR

09 - MAT. ACCT.

10 - PLANT SEC.

11 - INVENT. VER.

12 - SHIPMENT/EXPORT

13 - IMPORT

14 - INQUIRY

15 - INVESTIGATION

INSPECTION/INVESTIGATION FINDINGS
(Check one box only)

A B C D

X 1 - CLEAR

2 - VIOLATION

3 - DEVIATION

4 - VIOLATION & DEVIATION

39

40-41

42

43

44

19 50

55

MODULE INFORMATION

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