CASE No. [illegible]-94-010

United States
Nuclear Regulatory Commission

Report of Investigation

FORT ST. VRAIN:

ALLEGED FALSIFICATION OF RADIATION SURVEY RECORDS

Office of Investigations

Reported by OI: RIV

F/15

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PDR FOIA
SAURO96-434 PDR

Release

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Ex 13

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Title: FORT ST. VRAIN:

ALLEGED FALSIFICATION OF RADIATION SURVEY RECORDS

Licensee:

Public Service Company of Colorado
P.O. Box 840
Denver, CO 80201-0840

Docket No.: 50-267

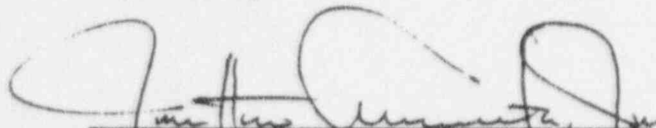
Case No.: 4-94-010

Report Date: May 26, 1995

Control Office: OI:RIV

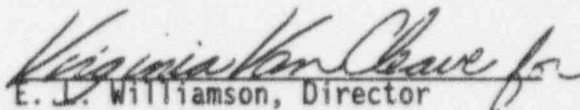
Status: CLOSED

Reported by:



Jonathan Armenta, Jr., Investigator
Office of Investigations
Field Office, Region IV

Reviewed by:



E. L. Williamson, Director
Office of Investigations
Field Office, Region IV

WARNING

The attached document/report has not been reviewed pursuant to 10 CFR Section 2.790(a) exemptions nor has any exempt material been deleted. Do not disseminate or discuss its contents outside NRC. Treat as "OFFICIAL USE ONLY."

SYNOPSIS

On March 29, 1994, the Nuclear Regulatory Commission (NRC), Office of Investigations (OI), initiated an investigation to determine whether vehicle radiation survey records at the Public Service Company of Colorado's (PSC) Fort St. Vrain Nuclear Generating Station (FSV) were falsified in late 1992 and early 1993 by Scientific Ecology Group (SEG) employees, a contractor at FSV. It was also alleged that radiation work permits were backdated by several SEG employees in early 1993, and an SEG supervisor falsified a survey form for the hot service facility block.

Based on the evidence developed during the investigation and review of the licensee's internal investigative report, it is concluded that two SEG supervisors and one SEG radiation protection technician deliberately falsified radiation survey records. Additionally, three SEG supervisors and five SEG radiation protection technicians deliberately falsified radiation work permits including a survey form for the hot service facility block.

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DETAILS OF INVESTIGATION

Allegation

Alleged Falsification of Radiation Survey Records

Applicable Regulations

10 CFR 20.201(b): Surveys (1993 Edition)

10 CFR 50.5: Deliberate Misconduct (1993 Edition)

10 CFR 50.9: Completeness and Accuracy of Information (1993 Edition)

Purpose of Investigation

This investigation was initiated to determine whether vehicle radiation survey records generated at the Public Service Company of Colorado's (PSC) Fort St. Vrain Nuclear Generating Station (FSV) were falsified in late 1992 and early 1993, by Scientific Ecology Group (SEG) employees, a contractor at FSV (Exhibit 1). In addition, it was alleged that radiation work permits (RWPs), including a survey form for the hot service facility block, were backdated by several SEG employees in early 1993.

Background

On March 7, 1994, during the conduct of an on-going investigation (4-93-013R) by the Nuclear Regulatory Commission (NRC), Office of Investigations (OI), Region IV (RIV), PSC management notified NRC OI:RIV they had resolved to hire an independent "third party investigator" to conduct an investigation to determine if an atmosphere of harassment and intimidation existed at FSV. The third party investigation team consisted of Ed STIER, Mark MALONE, and Howard ANDERSON of the law firm STIER, ANDERSON & MALONE (SAM).

On March 17, 1994, the SAM team received information from a radiation protection technician (RPT) regarding an alleged breakdown in the radiation safety program involving possible violations that collectively could be regarded as potentially safety significant.

Coordination with the NRC Staff

On March 25, 1994, PSC management reported to the NRC:RIV staff, the preliminary findings concerning potential radiation safety violations. It was reported that certain radiation survey records had been falsified by SEG employees. These surveys, which were related to the release of material from the FSV site, were not documented on a survey form, but were documented fictitiously and approved by two SEG supervisors at a later time. The licensee informed the NRC that the law firm they had contracted with to conduct an internal investigation had identified falsified vehicle survey records and RWPs.

On March 29, 1994, the NRC:RIV Allegation Review Panel recommended the licensee's investigation be allowed to proceed and requested that OI:RIV review the licensee's investigation for adequacy and completeness. The licensee related they were continuing to pursue these issues through extensive personnel and documentation reviews. On March 29, 1994, an investigation by OI:RIV was initiated to determine whether radiation survey records and RWPs were falsified and/or backdated by SEG employees, including a survey form for the hot service facility block.

Review of Licensee's Internal Investigation Report (Exhibit 2)

SAM was contracted by the licensee in February 1994 to independently determine whether an atmosphere of intimidation and harassment existed at FSV. This independent investigation began in March 1994, and during the conduct of that independent investigation, a SEG employee provided the SAM team with information about possible falsified documents in the radiation protection area. The scope of the SAM investigation was then expanded to include this issue. The SAM investigation report consists of a 328 page report with four appendices and was submitted to the NRC on March 27, 1995. Supportive documents, such as transcripts, were not submitted with the report to the NRC; however, the licensee has made the transcripts available on-site for the NRC to review. The four appendices to the report are being maintained in OI:RIV and will be made available upon request.

> INVESTIGATOR'S NOTE: Since the NRC:RIV Allegation Review Panel recommended the licensee be allowed to proceed with their internal investigation, OI:RIV agreed to hold its investigation in abeyance pending completion of SAM's investigation. It was also agreed that, at the completion of SAM's investigation, a copy of the report with supporting documents would be furnished to OI. This report would then be reviewed by OI to determine what, if any, additional investigative action was required.

OI:RIV's review of the SAM report of investigation determined the following:

The SAM report concluded that in early 1993, SEG supervisors Kenneth ZARHT and Roland "Chip" SAWYER, and RPT James BIXBY deliberately falsified or caused to be falsified radiation survey forms by backdating 1992 survey forms in early 1993.

The SAM report concluded that in March 1993, SEG supervisors, ZARHT, SAWYER, and Mike MILES deliberately falsified or caused to be falsified RWP surveys, by backdating survey forms in 1993. Additionally, at least five RPTs - Robert RANKIN, David HATCH, Craig THORP, James BIXBY, and Dennis BEIERLE, also deliberately falsified RWP surveys by backdating survey forms in 1993.

> INVESTIGATOR'S NOTE: Four other RPTs involved in the falsification of survey records are not included in this report, but they are mentioned in the SAM report. The evidence against these four RPTs was "inconclusive" according to SAM's report.

The SAM report also addressed whether SAWYER falsified a survey form for the hot service facility block. It was concluded that SAWYER did not perform the survey activity documented on the survey form #4503 on September 27, 1993, at 1600 hours. Records indicated that SAWYER was outside the plant attending training the afternoon of September 27, 1993.

Based upon the evidence reported in the SAM report of investigation, the licensee determined that ZARHT and SAWYER neglected their responsibilities as supervisors. ZARHT was terminated from employment on July 20, 1994. SAWYER was demoted and transferred from the site, but subsequently resigned on August 15, 1994. All other personnel are still employed at FSV (Exhibit 3).

> INVESTIGATOR'S NOTE: Because ZARHT and SAWYER were SEG employees, SEG took disciplinary action against them for their involvement in the radiation survey falsification.

Additional Information

On April 11-14, 1994, an NRC inspection [NRC Inspection Report 50-267/94-03; 72-009/94-03 (Exhibit 4)], was conducted at FSV by Robert Evans, NRC:RIV Inspector. The inspection report addresses the issue of the licensee reported falsified documents, which is considered an unresolved item pending further NRC and licensee assessment team review.

On March 25, 1995, after the licensee reported to the NRC:RIV that certain radiation vehicle surveys apparently had been falsified, PSC issued a stop work order [on March 28, 1994] within radiologically controlled areas at FSV until corrective actions were completed. Investigation by PSC concluded that no materials had been improperly released from the site without being surveyed, and there had been no inappropriate or unplanned exposures or contamination of personnel.

On March 28, 1995, a copy of the SAM report was requested by Gary SANBORN, Enforcement Officer, NRC:RIV. The report was provided and duplicated by RIV for the staff's review.

Closure Information

Based on the evidence developed during the investigation and review of the licensee's internal investigative report, it is concluded that two SEG supervisors and one SEG radiation protection technician deliberately falsified radiation survey records. Additionally, three SEG supervisors and five SEG radiation protection technicians deliberately falsified RWPs including a survey form for the hot service facility block.

SUPPLEMENTAL INFORMATION

On April 21, 1995, William SELLERS, Esq., Senior Legal Advisor for Regulatory Enforcement, General Litigation and Legal Advice Section, Criminal Division, U.S. Department of Justice, Suite 200 West, 1001 G Street, N. W., Washington, D.C. 20001, was apprised of the results of the investigation. Mr. SELLERS advised that in his view, the case did not warrant prosecution and rendered an oral declination.

LIST OF EXHIBITS

Exhibit No.	Description
1	Investigation Status Record, dated March 29, 1994.
2	Licensee's Internal Investigation Report, dated December 1994.
3	PSC's Correction Action Summary [Employee Employment Status], Undated.
4	NRC Inspection Report 50-267/94-03; 72-009/94-03, dated June 15, 1994.

REPORT OF INTERVIEW
WITH
RUBEN CARRILLO

On August 25, 1994, CARRILLO, Quality Assurance (QA) Engineer, Public Service Company of Colorado (PSC) was interviewed by Nuclear Regulatory Commission (NRC) Investigator Jonathan Armenta, Jr. This interview was conducted at the request of CARRILLO at a local area fast food restaurant, because he said he felt uneasy if other co-workers found out he was talking to the NRC. CARRILLO currently works at PSC's Fort St. Vrain Nuclear Generating Station (FSV), Plateville, Colorado, and provided the following information in substance:

CARRILLO said he was scheduled to be terminated from his job in June 1994; however, he has been given two extensions. The first one, extended his employment until August 18, 1994; the second one [which is final] shows his termination date, November 25, 1994. CARRILLO said they [PSC management] wanted to give him enough time to finish the problem reports [i.e., #93-06-02] that were left unresolved from QA audit #93-04, which he [CARRILLO] conducted in August 1993.

CARRILLO said that Mary FISHER, Deputy Decommissioning Project Director, recently told him he was "essential." He stated that when he was transferred from QA to engineering, they [PSC management] did not allow him the time to finish the unresolved problem reports; however, since the NRC [meaning Robert EVANS, NRC Project Engineer, scheduled to visit FSV during the week of August 15, 1994] was coming, he was told to finish the problem reports on or before August 16, 1994.

CARRILLO said that at a recent all hands meeting [on or about August 5, 1994], Don WAREMBOURG, Decommissioning Project Director, stated that during a recent meeting with the NRC at the NRC Region IV Offices, Arlington, Texas, the NRC was told that QA audit #93-04, conducted on August 1993, would not have uncovered any of the false release surveys discovered by the Stier, Anderson & Malone investigation. CARRILLO said that was not true. CARRILLO said that he was told to "look the other way" by Michael HOLMES, PSC QA Manager, and in addition, if he had been allowed to conduct the audit the way he wanted to, he would have discovered the false surveys. CARRILLO said he has been made the "sacrificial lamb" because PSC management will now blame him [meaning he was rushed to finish the assignment] for the unprofessional handling of the problem reports if they do not satisfy the NRC.

CARRILLO said he found out that PSC has selected Jennifer VINSON as his replacement. Further, CARRILLO said he is teaching VINSON how to conduct QA audits to qualify her as a QA lead auditor before he is released. CARRILLO said he feels he has been discriminated against. CARRILLO said he has hired an attorney to look into this matter to determine if any legal action can be taken against PSC for intimidation and discrimination.

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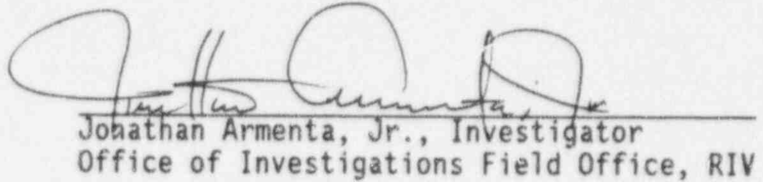
Release

CARRILLO stated he feared for his job in March 1994 when he was interviewed by the NRC on another investigation. CARRILLO said he was told he would not be terminated until June 1994. CARRILLO said he decided to keep quiet because he wanted to make sure his job was secured at least until June 1994 and maybe longer. CARRILLO said he felt intimidated, in March 1993, by FISHER when she told him he did not have to know "any more" about SEG operations.

CARRILLO provided no additional information pertinent to this investigation at this time.

This report prepared on September 2, 1994, from investigator's notes.



Jonathan Armenta, Jr., Investigator
Office of Investigations Field Office, RIV

INVESTIGATION STATUS RECORD

Case No.: 4-94-010

Facility: FORT ST. VRAIN

Allegation No.: RIV-94-A-0026

Case Agent: ARMENTA

Docket No.: 50-267

Date Opened: 03/29/94

Source of Allegation: LICENSEE (L)

Priority: N (L. J. CALLAN, RA:RIV)

Notified by: WISE (SAC)

Staff Contact: CHARLES L. CAIN, CHIEF FUEL CYCLE/DECOMMISSIONING BRANCH

Category: WR

Case Code: RO

Subject/Allegation: ALLEGED FALSIFICATION OF RADIATION SURVEY RECORDS

Remarks: 10 CFR 50.9

Monthly Status Report:

03/29/94: On March 25, 1994, Public Service Company of Colorado at the Fort St. Vrain Nuclear Generating Station (FSV) and contractor personnel from Westinghouse, and Morrison-Knudsen (MK) notified NRC:RIV staff that certain radiation survey records at FSV apparently had been falsified by Scientific Ecology Group employees, also a contractor at FSV. The licensee informed the NRC that they had contracted with a law firm to conduct an internal investigation, which had identified falsified vehicle survey records and radiation work permits (RWP). The licensee related they had identified contractor personnel who acknowledged they had conducted surveys, but had falsified the surveys and RWPs by providing results of these surveys at a later date. The licensee related they were continuing to pursue these issues through extensive personnel and documentation reviews. It was discussed during an Allegation Review Panel meeting, and the Office of Investigations (OI), Region IV (RIV), recommended the licensee investigation be allowed to proceed and OI:RIV would review the licensee's investigation for adequacy and completeness. Status: FWP [Field Work in Progress]

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EXHIBIT 1

Page 1 of 1 pages

Release

CORRECTIVE ACTION SUMMARY

FALSIFICATION OF RECORDS (CONT'D)

MAJOR PLAYERS IN RECORDS FALSIFICATION, MATERIAL RELEASE

Bixby

Involved with backdating 41 entries on 14 Release Survey Forms

Position: Alternately Admitted and Then Denied Backdating Records and Finally Refused Further Interviews

Status: Presently Employed as RP Technician

SUPERVISORY PERSONNEL INVOLVED IN RECORDS FALSIFICATION

Ken Zahrt

Involved with directing and signing backdated RWP Survey Forms and backdated Unconditional Release Survey Forms.

Position: Admitted Involvement and Admitted Directing Some Personnel to Fix the Problem. Did not Admit Backdating with Malice of Forethought

Status: Terminated

Chip Sawyer:

Involved with directing and signing backdated RWP Survey Forms

Acting as an RPT, Apparently Falsified Unconditional Release Survey Documentation for the Hot Service Facility Plug

Position: Denied Backdating. Denied Falsification of the HSF Release Survey

Status: Demoted and Transferred from the Site; Subsequently Resigned

Mike Miles

Apparent signing of backdated RWP survey forms

Position: Denied Being Involved with Backdating, Claiming Forms Were Signed on the Date Indicated and Must Have Been Misplaced

Status: Presently Employed as Night Shift Supvr

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CASE NO. 4-94-010

EXHIBIT 3
Page 1 of 2 pages

Release

CORRECTIVE ACTION SUMMARY

FALSIFICATION OF RECORDS (CONT'D)

MAJOR PLAYERS IN RECORDS FALSIFICATION, RWP SURVEYS

NAME	POSITION	REPORTS INVOLVED	REPORT DISPOSITION
Beierle	Declined Interview	1	Evidence Supports Backdating
Bixby	Alternately Admitted & Denied	4	Evidence Supports Backdating
Dale	Could Not Be Located	2	No Evidence of Backdating
Daniel	Denied Backdating	5	Suspicion, but Evidence Non-Conclusive
Deringer	Denied Backdating	2	Suspicion, but Evidence Non-Conclusive
Hatch	Denied Backdating	2	Evidence Supports Backdating, but Directed by Zahrt
Rankin	Admitted Backdating	8	Directed by Sawyer
Sawyer*	Denied Backdating	2	Evidence Supports Backdating
Thorp	Admitted Backdating	1	Directed by Supervisor
Trujillo	Denied Backdating	3	Suspicion, but Evidence Non-Conclusive
		30	

* Sawyer Was a Supervisor Acting in an RPT Capacity

All of the above personnel are still employed at FSV except Dale & Sawyer.

CASE NO. 4-94-010

EXHIBIT 3

JA,
Case file

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011

DATE/TIME: 9/01/95 8:00 A

PRIORITY:
Immediately ______
1 Hour ______
2-4 Hours ______

MESSAGE TO: Len Williamson

MESSAGE FROM: Jonathan Armenta, Jr.

NUMBER OF PAGES: 5 PLUS TRANSMITTAL SHEET

TELECOPY NUMBER: (208)515-1438 VERIFICATION NUMBER: (817)860-8110

CONTACT: JA

SPECIAL INSTRUCTIONS/ATTACHMENTS(S):

Len,
GARY called this AM, he said Sam Collins wanted to see the Repts. of Int. & was there anyway they could get the memo today, w/the attachments attached for your review, corrected copy of memo.
JA

DISPOSITION:
Return to Originator ______
Place in Mail ______
Other ______

Transmitted & Verified by:

______ ______
NAME DATE

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Release

CORRECTIVE ACTION SUMMARY

HARASSMENT & INTIMIDATION ISSUES

- **PSC RECEIVES NRC LETTER (MID DECEMBER 1993) CONCERNING ALLEGATIONS OF EMPLOYEES FROM AN OSHA PERSPECTIVE**
  - *PSC & THE WESTINGHOUSE TEAM (WT) INVESTIGATED AND RESPONDED THAT THE ALLEGATIONS WERE WITHOUT FOUNDATION.*

- **EARLY JANUARY 1994, PSC INFORMED BY NRC REGION IV OFFICE OF INVESTIGATION, MR. JONATHAN ARMENTA OF ALLEGATIONS OF FOUR LABORERS CLAIMING THEY WERE LAID OFF AFTER RAISING SAFETY CONCERNS**
  - *PSC & WT MAKE PERSONNEL AVAILABLE FOR INTERVIEWS*

- **PSC INITIATED ACTION AS A RESULT OF AN EARLY FEBRUARY 1994, INCIDENT BETWEEN AN MKF SUPERINTENDENT AND A RADIATION PROTECTION TECHNICIAL (RPT)**
  - *CHANGES WERE MADE TO THE RADIOLOGICAL OCCURRENCE REPORT (ROR) SYSTEM*
  - *MKF SUPERINTENDENT WAS TRANSFERRED FROM THE SITE*
  - *WT MANAGEMENT MET WITH RPT'S AND CRAFT PERSONNEL TO MITIGATE POSSIBLE CHILLING EFFECTS AND OBTAIN FEEDBACK*
  - *WT MANAGEMENT MET IN ROUND TABLE DISCUSSIONS TO TRAIN ON THE CHILLING EFFECT CONCEPT AND 10 CFR 50.7*
  - *MID-FEBRUARY 1994, PSC, WITH WT CONCURRENCE, CONTRACTS WITH STIER, ANDERSON & MALONE (SAM) TO CONDUCT AN INDEPENDENT THIRD PARTY INVESTIGATION OF POSSIBLE HARASSMENT AND INTIMIDATION ACTIVITIES*
  - *MARCH 10, 1994, PSC CONDUCTS ALL HANDS MEETINGS WITH SITE EMPLOYEES TO EMPHASIZE PROJECT VALUES AND INTRODUCE THE THIRD PARTY INVESTIGATION PROCESS*

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Release

CORRECTIVE ACTION SUMMARY

HARASSMENT & INTIMIDATION ISSUES (CONT'D)

- **SAM PRELIMINARY FINDINGS ON H&I ISSUES REVIEWED WITH SITE MANAGEMENT IN EARLY JULY 1994, WITH THE CONCLUSION THAT AT THE TIME THE FOUR LABORERS WERE LAID OFF AN ATMOSPHERE EXISTED IN WHICH EMPLOYEES PERCEIVED THAT PRODUCTION AND SCHEDULING WERE EMPHASIZED OVER SAFETY AND PROCEDURAL CONCERNS, AND RAISING SAFETY CONCERNS COULD RESULT IN RETALIATION.**

- **SAM PRELIMINARY FINDINGS ALSO CONCLUDED THAT THE MAJOR ELEMENTS THAT CREATED THE H&I ATMOSPHERE NO LONGER EXISTED AS A RESULT OF THE POSITIVE ACTIONS TAKEN:**

  - *OVERALL PHILOSOPHY OF SAFETY VS PRODUCTION WAS RE-EMPHASIZED TO ALL EMPLOYEES IN ALL HANDS MEETINGS*

  - *EXECUTIVE MANAGEMENT FROM PSC AND THE WT MET WITH SITE MANAGEMENT TO RE-EMPHASIZE THEIR CORE VALUES WITH SPECIFIC EMPHASIS ON SAFETY AND REGULATORY AND PROCEDURAL COMPLIANCE*

  - *MKF OPEN DOOR POLICY WAS REVISITED AND RE-EMPHASIZED TO ALL EMPLOYEES*

  - *TEAM BUILDING SESSIONS AND SENSITIVITY TRAINING WERE CONDUCTED WITH WT SUPERVISION ON H&I ISSUES*

  - *ENHANCED GUIDELINES ON DESTAFFING AND LAYOFF DECISIONS WERE DEVELOPED BY MKF*

  - *PSC ENHANCED THEIR OVERSIGHT ACTIVITIES AND ESTABLISHED A PSC HOTLINE FOR EMPLOYEE USE*

  - *EMPLOYEE/MANAGEMENT INTERFACES WERE IMPROVED IN THE CONDUCT OF TOOLBOX, SAFETY AND JOB BRIEFINGS, INCLUDING INTERFACE AND COMMUNICATIONS WITH UNION REPRESENTATIVES*

  - *SEG REORGANIZED TO PROVIDE BETTER MANAGEMENT INVOLVEMENT*

CORRECTIVE ACTION SUMMARY

HARASSMENT & INTIMIDATION ISSUES (CONT'D)

> *JOINT MANAGEMENT/RADIATION PROTECTION/CRAFT LABOR SAFETY WALKDOWNS WERE INITIATED TO PROMOTE A TEAMWORK ATMOSPHERE*

> *WEEKLY PSC AND WT MANAGEMENT MEETINGS ESTABLISHED TO DISCUSS ISSUES AND POTENTIAL AREAS OF CONCERNS*

> *KEY PERSONNEL INVOLVEMENT*

- *Danny Hicks, Asst. Superintendent, MKF Transferred from the FSV Site*
- *Marion Herrera, Laborer Foreman, MKF; Still Employed at FSV*
- *Dean Ross, Iron Worker Foreman, MKF; Still Employed at FSV*
- *Bob Fessenden, Asst Supt, MKF; Still Employed at FSV*
- *Obviously There Were Other Personnel Involved to Varying Degrees (See Report for Details)*

> *MOTIVATION*

- *The Report Did Not Come to Any Specific Root Cause of the H&I Issues. The Report Infers There Was No Malice of Forethought Involved, and the Perceptions That Were Created Among the Work Force Were Unknown to and Unrecognized by Management*

CORRECTIVE ACTION SUMMARY

FALSIFICATION OF RECORDS

- **ON MARCH 17, 1994, THE SAM INVESTIGATION IDENTIFIES POSSIBLE FALSIFICATION OF RECORDS (FOR) ISSUES, AND PSC DIRECTS SAM TO EXPAND THEIR INVESTIGATION**

- **PSC EXECUTIVE MANAGEMENT INFORMS WT EXECUTIVE MANAGEMENT OF POTENTIAL FOR ISSUES ON MARCH 18, 1994**

- **MARCH 24, 1994, SEG BRINGS IN AN INDEPENDENT ASSESSMENT GROUP WHICH, ON MARCH 24, ARRIVES AT THE PRELIMINARY CONCLUSION THAT THERE WERE INSTANCES OF FAILURE TO FOLLOW PROCEDURES AND APPARENT FALSIFICATION OF RECORDS WITH THE INTENT TO MISLEAD**

- **MARCH 25, 1994, THE NRC WAS INFORMED OF THE PRELIMINARY FINDINGS**

- **THE WT SHUT DOWN WORK ACTIVITIES ON MARCH 26, AND ON MARCH 28, PSC ISSUED A FORMAL STOP WORK LETTER TO THE WT SPECIFYING ACTIVITIES THAT NEEDED TO BE ADDRESSED PRIOR TO RESTART:**

  > *DEMONSTRATE THAT THE RADIATION PROTECTION STAFF RECOGNIZES THEIR DUTY TO COMPLY WITH PROCEDURES TO THE LETTER*

  - *Specific Lesson Plans Were Developed, Reviewed and Approved by the PSC Rad Protection Manager and Training Was Completed Prior to Restart*

  > *DEMONSTRATE THAT ALL APPROPRIATE WT EMPLOYEES CLEARLY RECOGNIZE THEIR RESPONSIBILITY TO BRING FORTH ISSUES TO MANAGEMENT ASSOCIATED WITH PROCEDURAL NON-COMPLIANCE AND THAT THEY RECOGNIZE THE USE OF THEIR STOP WORK AUTHORITY*

  - *Training Plans Were Developed and Were Reviewed and Approved by the PSC RPM; Training Was Conducted Prior to Restart*

CORRECTIVE ACTION SUMMARY

FALSIFICATION OF RECORDS (CONT'D)

> *DEMONSTRATE THAT THE RP STAFF HAS BEEN RETRAINED IN THE AREAS OF PROCEDURE COMPLIANCE, RWP SURVEYS, RELEASE OF MATERIALS AND APPROPRIATE DOCUMENTATION*

- *Specific Lesson Plans Were Developed and Were Reviewed by the PSC RPM; Training Was Conducted Prior to Restart*

> *DEMONSTRATE THE CLEAR UNDERSTANDING OF THE NEED FOR AND USE OF SELF ASSESSMENTS/INTERNAL REVIEWS AND THE PROPER WAY TO RESOLVE PROBLEMS (IE: ROR SYSTEM, QA PROBLEM REPORT SYSTEM, ETC.)*

- *Lesson Plans Were Developed and Reviewed; All Training Was Conducted Prior to Restart*

> *EXPLAIN WHY PSC SHOULD EXHIBIT CONFIDENCE IN SEG MANAGEMENT ON THIS PROJECT IN THE FUTURE*

- *SEG Reorganized the Site Management and the Organizational Structure, and obtained PSC Approval*
- *Specific Personnel Action:*

  Ken Zarht, Radiation Protection Supvr Removed From Site
  Chip Sawyer, Rad Protection Supvr Removed From Site
  Ed Parsons, Project Rad Protection Manager Replaced
  Dick Sexton, TSS, Moved to Alternative Position
  Temporary Mentors Brought On Site for Guidance
  Lower Tier Organizational Changes for Closer Management
  Overall SEG Brought on 17 Additional Personnel, in April 94
  Followed By an Additional Staff Increase of 13, by August 94

CORRECTIVE ACTION SUMMARY

FALSIFICATION OF RECORDS (CONT'D)

> *DEVELOP, WITH PSC CONCURRENCE, AN ACTION PLAN WITH FIRM COMMITMENT DATES TO ENSURE THAT ALL RP RECORDS, EXISTING & FUTURE, ARE IN FULL COMPLIANCE WITH REGULATIONS, AND ADDRESS ACTIONS TAKEN TO MITIGATE RECURRENCE*

- *The WT Developed a Schedule for Review of All Records; the QA Program Was Supplemented to Provide Specific Surveillance Activities to monitor generation of future records*

> *DEVELOP, WITH PSC CONCURRENCE, AN ACTION PLAN WITH FIRM COMMITMENTS TO CORROBORATE THAT MATERIALS WERE APPROPRIATELY RELEASED FROM THE FSV SITE*

- *The WT Brought on a Safety Assessment Group to Evaluate the Safety Implications and Head Up the Overall WT Investigation. SEG Brought on the MORT Group to Assess the Overall Rad Protection Program as Well as Assess the Materials Released*

> *DEVELOP, WITH PSC CONCURRENCE, AN ACTION PLAN WITH FIRM COMMITMENT DATES THAT ADDRESSES THE IMPLICATIONS OF NOT HAVING APPROPRIATE RWP SURVEY DATA, INCLUDING POTENTIAL HEALTH AND SAFETY IMPLICATIONS*

- *The WT Safety Assessment Group Together with the MORT Group Provided an Overall Safety Assessment to PSC, Concluding There Were No Adverse Safety Implications for the General Public and No Safety Implications for the On-Site Workforce*

> *INSTITUTE MEASURES THAT WILL DEMONSTRATE THAT THE WT QA PROGRAM IS EFFECTIVELY IMPLEMENTED*

- *The WT/SEG QA Programs Were Augmented; The Decommissioning QA Manual Was Rewritten; WT QA Personnel Were Given Training in Rad Protection Procedures; The Program Was Structured to Provide Specific Surveillance Activities and QA Audit Frequencies Were Increased; The QA Problem Report System Was Emphasized and Tracking Mechanisms Were Established*

CORRECTIVE ACTION SUMMARY

FALSIFICATION OF RECORDS (CONT'D)

> *PSC HAD MADE AN INITIAL ASSESSMENT THAT THERE WERE NO SIGNIFICANT SAFETY CONCERNS ASSOCIATED WITH THESE EVENTS, HOWEVER, A WRITTEN ASSESSMENT BY THE WT IS REQUIRED PRIOR TO RESTART*

- *The WT Provided the Safety Assessment Which Was Reviewed and Accepted by the Decommissioning Safety Review Committee (DSRC)*

> *WT IMMEDIATE CORRECTIVE ACTIONS WERE IMPLEMENTED:*

- *Temporary Suspension of All Work Activities in an RCA*
- *Cessation of Release of Materials From Established RCA's*
- *Retraining of Key Project Personnel*
- *Deactivate, Review and Reactivate All RWP's to Ensure Full Compliance*
- *Implemented the Safety Assessment and MORT Groups to Evaluate Overall Program, Identify Specific Root Causes and Develop Long Term Corrective Action*
- *Placed Personnel Directly Involved on Administrative Leave Pending Investigation*

O **AS A RESULT OF THE MORT ANALYSIS AND FINDINGS THE WT DEVELOPED AND IMPLEMENTED A COMPREHENSIVE RADIOLOGICAL IMPROVEMENT PLAN (RIP). CORRECTIVE ACTIONS, BOTH SHORT AND LONG TERM ARE BEING TRACKED; KEY CORRECTIVE ACTIONS INCLUDE:**

> *REVISION AND ENHANCEMENT OF RAD PROTECTION PROCEDURES*

> *REVISION OF QA PROGRAM AND IMPLEMENTING PROCEDURES*

> *RETRAINING OF PERSONNEL IN NEW PROCEDURES*

CORRECTIVE ACTION SUMMARY

FALSIFICATION OF RECORDS (CONT'D)

- *TRAINING OF PERSONNEL IN PROCEDURAL AND REGULATORY COMPLIANCE; TEAM BUILDING SESSIONS; COMMUNICATIONS TRAINING; CONFLICT RESOLUTION TRAINING; TRAINING IN MANAGEMENT ROLES*

- *TRAINING SEMINARS FOR RAD PROTECTION PERSONNEL IN SPECIFIC RAD PROTECTION ACTIVITIES; TRAINING OF QA PERSONNEL IN RAD PROTECTION PROCEDURES*

- *DEVELOPED CORRECTIVE ACTIONS FOR DEFICIENCIES IDENTIFIED; FOURTEEN (14) AREAS OF THE PROGRAM ASSESSED WITH FIVE (5) OF THESE AREAS HAVING SIGNIFICANT DEFICIENCIES. (SEE THE MORT REPORT FOR DETAILS)*

O **SUMMARY REPORT OF THE THIRD PARTY INVESTIGATION WAS COMPLETED IN JULY 1994 ALONG WITH THE MORT ANALYSIS. PSC & THE WT PRESENTED THE RESULTS TO NRC REGION IV ON AUGUST 4, 1994**

- *FOURTEEN (14) RADIATION SURVEY DOCUMENTS FOR THE UNCONDITIONAL RELEASE OF MATERIALS COVERING THE PERIOD OF SEPTEMBER 8, 1992 THRU DECEMBER 7, 1992, WERE CREATED AFTER THE FACT AND BACK DATED TO APPEAR THAT THEY HAD BEEN PREVIOUSLY COMPLETED*

- *HOWEVER, NO MATERIALS WERE IMPROPERLY RELEASED FROM FSV, AND THERE WERE NO SAFETY IMPLICATIONS*

- *RADIATION WORK PERMIT (RWP) DOCUMENTS COVERING THE PERIOD OF JANUARY AND FEBRUARY 1993 APPEAR TO HAVE BEEN CREATED AFTER THE FACT AND BACKDATED TO APPEAR THAT THEY HAD BEEN PREVIOUSLY COMPLETED*

- *THIS BACKDATING EFFORT DID NOT CREATE ANY ADVERSE IMPACT TO THE PUBLIC OR THE FSV WORKER HEALTH & SAFETY*

- *AN UNCONDITIONAL RELEASE SURVEY IN SEPTEMBER 1993, FOR THE HOT SERVICE FACILITY PLUG APPEARS TO HAVE BEEN FALSIFIED*

- **MOTIVATION**

  > *THE REPORT DID NOT IDENTIFY A ROOT CAUSE FOR THE FALSIFICATION OF RECORDS*

- **MAJOR PLAYERS IN THE FALSIFICATION OF RECORDS**

  > *SEE THE ATTACHED TABLES FOR THE LISTING OF PERSONNEL*

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

APR 13 1994

NOTICE OF SIGNIFICANT LICENSEE MEETING

Name of Licensee:	Public Service Company of Colorado Platteville, Colorado
Name of Facility:	Fort St. Vrain
Docket:	50-267
Date and Time of Meeting:	Friday, June 30, 1994 2 p.m. CDT
Location of Meeting:	NRC Region IV Office Arlington, Texas Executive Conference Room
Purpose of Meeting:	To Discuss Decommissioning Status of Fort St. Vrain
NRC Attendees:	L. J. Callan, Regional Administrator J. M. Montgomery, Deputy Regional Administrator S. J. Collins, Director Division of Radiation Safety and Safeguards R. A. Scarano, Deputy Director Division of Radiation Safety and Safeguards C. L. Cain, Branch Chief Fuel Facilities and Decommissioning Branch R. J. Evans, Radiation Specialist W. L. Brown, Regional Counsel G. F. Sanborn, Enforcement Officer R. Wise, Allegations Coordinator J. Armenta, Office of Investigations
Licensee Attendees:	A. C. Crawford, Vice President, Electric Production C. Calton, Westinghouse Team Project Director M. Holmes, Project Assurance Manager

NOTES:

(1) Attendance by NRC personnel at the NRC/licensee meeting should be made known by COB on June 17, 1994, via telephone call to R. J. Evans (817) 860-8234.

9404200122

(2) This meeting is open for attendance by members of the general public.

Approved By: Samuel J. Collins, Director
Division of Radiation Safety
and Safeguards

DISTRIBUTION:
See next page

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

JUN 15 1994

Dockets: 50-267
72-009

Licenses: DPR-34
SNM-2504

Public Service Company of Colorado
ATTN: A. Clegg Crawford, Vice President
Electric Production
P.O. Box 840
Denver, Colorado 80201-0840

SUBJECT: NRC INSPECTION REPORT 50-267/94-03; 72-009/94-03

This refers to the routine, announced inspection conducted by Mr. R. J. Evans of this office on April 11-14, 1994. The inspection was a review of activities authorized for the Fort St. Vrain Nuclear Generating Station. At the conclusion of the inspection, the findings were discussed with those members of your staff identified in the enclosed report.

Areas examined during the inspection are identified in the report. Within these areas, the inspection consisted of selected examination of procedures and representative records, interviews with personnel, and observation of activities in progress.

It was identified during a walkdown of the reactor building ventilation system that several fans were deenergized, contrary to procedural requirements. This violation is not being cited because the criteria in paragraph VII.B.1 of Appendix C to 10 CFR Part 2 of the NRC's "Rules of Practice." were satisfied. The violation was not a significant regulatory concern; however, the NRC expects your staff to operate and maintain plant systems in accordance with the approved system operating procedures.

One unresolved item was identified concerning your staff's discovery of two groups of potentially falsified records. An unresolved item is a matter about which more information is required to ascertain whether it is an acceptable item, a violation, or a deviation. In response to the discovery of potentially falsified records, you have been active in investigating these matters internally. At the time of this inspection, these investigations and assessments had not been completed. The potentially falsified records issue is of significant concern to our staff, because the regulatory program is based on licensees and their contractors, employees, and agents acting with integrity and communicating with candor. Specific concerns identified with the records falsification issue include apparent widespread failure to follow procedures and to comply with radiation work permit requirements, involvement of more than one person, potential supervisory involvement, and a lack of accountability for contractor staff actions. This issue is being considered

F/22

CASE NO. 4-94-010

EXHIBIT 4
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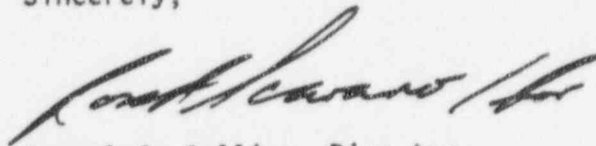
9406220014

an Unresolved Item to allow the NRC time to review further the details of the findings and to give your two assessment teams time to complete their analyses.

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter, the enclosure, and any response will be placed in the NRC Public Document Room.

Should you have any questions concerning this inspection, please contact Mr. Robert Evans at (817) 860-8234.

Sincerely,



Samuel J. Collins, Director
Division of Radiation Safety
and Safeguards

Enclosure:
Appendix - NRC Inspection Report
50-267/94-03; 72-009/94-03

cc: w/enclosure:
Public Service Company of Colorado
ATTN: D. D. Hock, President and
Chief Executive Officer
P.O. Box 840
Denver, Colorado 80201-0840

Public Service Company of Colorado
ATTN: D. Warembourg
Nuclear Operations Manager
16805 Weld County Road 19-1/2
Platteville, Colorado 80651

Public Service Company of Colorado
ATTN: M. H. Holmes
Nuclear Licensing Manager
16805 Weld County Road 19-1/2
Platteville, Colorado 80651

Public Service Company of Colorado
ATTN: Commitment Control Coordinator
16805 Weld County Road 19-1/2
Platteville, Colorado 80651

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Dockets: 50-267/94-03
72-009/94-03

Licenses: DPR-34
SNM-2504

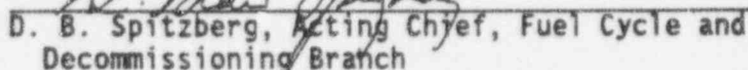
Licensee: Public Service Company of Colorado
P.O. Box 840
Denver, Colorado 80201-0840

Facility Name: Fort St. Vrain Nuclear Generating Station

Inspection At: Platteville, Colorado

Inspection Conducted: April 11-14, 1994

Inspector: R. J. Evans, Radiation Specialist

Approved:  6/14/94
D. B. Spitzberg, Acting Chief, Fuel Cycle and Decommissioning Branch — Date

Inspection Summary

Areas Inspected: Routine, announced inspection of plant status, operational safety inspection, and plant procedures.

Results:

- The licensee permanently exited several Decommissioning Technical Specification and license requirements following removal of all activated graphite components from the reactor building (Section 2.1).

- The fire water system was inspected and found to be correctly aligned for standby operation. The reactor plant ventilation system was also inspected and many fans and air handling units were found to be off, contrary to procedure requirements. The failure to maintain a system in accordance with approved operations procedures was considered a violation (noncited) of 10 CFR Part 50, Appendix B requirements. The licensee needed to increase their level of operations oversight of minor, but necessary, plant components (Section 2.2).

- Plant housekeeping, previously identified as a concern, had greatly improved since the last inspection (Section 2.2).

CASE NO. 4-94-010

EXHIBIT 4

9406220018

- The licensee reported to the NRC that two groups of potentially falsified documents were identified during a licensee initiated self-assessment. This issue is considered an unresolved item pending further NRC and licensee assessment team review (Section 2.3).

- The licensee had developed and implemented all procedures, except one set, as required by the Decommissioning Technical Specifications and the Decommissioning Plan. The undeveloped set of procedures was not required at this stage in the project (Section 3.1).

- More management attention was indicated in the maintenance of administrative procedure (Section 3.1).

- The two system operating procedures that were reviewed were found to be adequate for the project; however, the procedures contained a high number of problems that should have been found and corrected during a verification and validation process prior to implementation. The procedures did provide enough detail to allow for adequate operation of the systems (Section 3.1).

Summary of Inspection Findings

- A noncited violation was identified (Section 2.2).

- Unresolved Item 50-267/9403-01 was identified (Section 2.3).

Attachment:

- Attachment - Persons Contacted and Exit Meeting

DETAILS

1 PLANT STATUS

The major decommissioning task in progress at the facility was the dismantlement and decontamination of the radioactive portions of the prestressed concrete reactor vessel (PCRV). The top head concrete has been removed, sectioned, packaged, and shipped offsite. The top headliner and the PCRV upper side reflector keys were removed by October 1993. The licensee then began to remove the remaining graphite core components from the PCRV. All graphite core components were removed from the reactor building by March 21, 1994. Sixty nine Type A cask shipments and one Type B cask shipment were needed for disposal of the core components.

During this inspection period, the licensee began dismantling the core barrel. At the end of the inspection period, about 60 of a total of 115 barrel pieces had been removed. Other activities in progress during the inspection period included decontamination and dismantlement of the instrumentation and controls system, reactor plant cooling water system, and radioactive gas waste system gaseous waste tanks.

The licensee issued a stop work order (event described in Section 2.3 below) on March 28, 1994, because of the discovery of two blocks of potentially falsified documents. The stop work order was lifted on April 12, 1994. The shield water system, used to keep the water in the PCRV clean and filtered, was turned off during the stop work order. Water turbidity increased from about 0.15 nephlometric turbidity units (NTU) to 2.0 NTU. The turbidity was 1.78 NTUs and decreasing at the end of the inspection period. Turbidity values are of importance, because they are a measure of water clarity. The licensee wants to keep the NTU value as close to zero as possible.

The Westinghouse Team (Westinghouse, MK-Ferguson, and Scientific Ecology Group) gained time in the schedule because of project scope changes and because the removal of graphite components progressed quicker than planned. The team lost time because of the stop work order and because of problems with removing the silica block insulation from the core support floor. Project completion was tentatively scheduled for January 1996.

2 OPERATIONAL SAFETY VERIFICATION (71707)

The purpose of this inspection was to ensure that decommissioning activities were being conducted safely and in conformance with license and regulatory requirements. The following paragraphs provide details of specific inspector observations during this inspection period.

2.1 Exiting of Four License and Technical Specification Requirements

As part of the decommissioning process, activated graphite blocks were removed from the PCRV and transported offsite for disposal. Several license and Decommissioning Technical Specifications (DTS) requirements were applicable and in force during the period of time that graphite was in the reactor building:

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EXHIBIT 4
Page 5 of 13 pages

- The reactor building confinement integrity shall be maintained . . . whenever activated graphite blocks have been removed from the PCRV and remain inside the reactor building (License Condition 3.1).

- The reactor building ventilation exhaust system shall be operable . . . whenever activated graphite blocks have been removed from the PCRV and remain inside the reactor building (License Condition 3.2).

- . . . (the facility) is being converted to utilize a gas-fired boiler. The natural gas line supplying this boiler, or any other new natural gas source, shall not be introduced within 0.5 miles of the location where activated graphite blocks are stored, for any purpose, without prior NRC approval (Administrative Controls 5.11).

- While spent fuel or radioactive graphite core components remain onsite, no new natural gas sources shall be introduced within 0.5 miles of the location where spent fuel or radioactive graphite core components are stored, for any purpose, unless the licensee submits and the NRC has reviewed and approved an analysis demonstrating that such natural gas will not present an unacceptable hazard to the spent fuel or to the radioactive graphite core components . . . (License Condition 2.D.4).

According to the DTS, activated graphite blocks are defined as all activated graphite components that were inside the PCRV when there was irradiated fuel in the core. Defueling elements are not considered activated graphite blocks. According to the licensee, they have accounted for the removal of all activated graphite components down to and including the core support posts. The licensee concluded that the remaining graphite items in the PCRV consisted of post fragments, small dowel pins, and other items (unknown quantities of dust and other miscellaneous graphite fragments) that were considered pieces, but not components. The licensee performed an evaluation that concluded that the remaining graphite pieces in the reactor building were not a significant health and safety hazard. On March 21, 1994, the final shipment of activated graphite core support posts and other graphite components were removed from the site. Therefore, the licensee concluded that they exited the above DTS and license conditions when the final shipment left the site. This position was previously discussed with the NRC.

For As-Low-As-Reasonably-Achievable (ALARA) purposes, the licensee plans to continue operation of the reactor building ventilation system. Additionally, it should be noted that the above license conditions apply only to the reactor building and not the Independent Spent Fuel Storage Installation (ISFSI) facility. The natural gas restriction for the ISFSI remains in effect. Since the ISFSI is about 1/4 mile from the reactor building, a restriction for new natural gas sources still exists for up to 1/4 mile past the reactor building. No new natural gas sources were identified within 1/4 mile of the reactor building during the inspection.

2.2 Walkdown of Two Operating Systems

A walkdown of selected plant systems was performed to independently ascertain whether the systems were correctly aligned and maintained by the licensee. The systems inspected included the fire water system and the reactor plant ventilation system. The inspection consisted of a procedure review, plant walkdown using the procedures as references, and discussions of findings with plant operators.

The fire water system was found to be in a standby mode of operation which was the correct mode for the plant at that time. However, several negative findings were identified and pointed out to the licensee. For example, Section 6.1 of the operating procedure provided instructions to verify the system was in standby readiness. The verification that the diesel in standby (amber) indicating light was illuminated was missing from Section 6.1, and an annunciator listed in that section did not agree with the wording engraved on the annunciator. Also, one step provided instructions that the red indicator lights for the riser valves had to be off; however, the red light for riser Valve G-3, indicating that the valve was open, was illuminated. The control room operator stated that the problem was with an indication switch and that the valve was not open (a station service request was written for this item). In another section of the procedure, a Power On light was referenced that was actually labelled a Ready light in the field.

During a tour of the fire water system, standing water was found on the floor of the diesel fire pump room. This was a repeat observation. The licensee was having problems with pump packing leaks and overflow problems with the air release valve to drain. This observation is of concern, because the diesel is battery started and, if the batteries short out because of water exposure, the diesel will become inoperable. At the time of the inspection, the batteries were not in any immediate danger of water exposure. The licensee issued station service requests to readjust the pump packing and valve.

The second system that was inspected was the reactor plant ventilation system. The major components of the system were in service including one supply fan, one exhaust fan, and one chiller. Building differential pressure was being maintained within the normal operating limits; however, the system flow rate was 15,000 cubic feet per minute (cfm). This flow rate was below the design flow lower limit of 17,100 cfm. The licensee does not have to maintain flow at the design flow rate as long as the building remains at a subatmospheric pressure. At the time of the inspection, the system was maintaining the building at a subatmospheric pressure which complied with a DTS surveillance requirement.

Effective March 21, 1994, plant conditions no longer required this system to be operable because the final graphite components had been removed from the reactor building. Despite this, the operations procedure for the ventilation system had not been revised to delete the operability requirement. During the walkdown, the inspector observed that a high number of auxiliary fans, including the instrument room exhaust fans, had their power supplies turned off, contrary to the procedure requirements that still required the power supplies to be on. The operators stated that the fans were energized on an

as-needed basis. Other observations included the identification of missing colored lens caps for one fan, an erroneous reading on one temperature indicator, and a reading on one pressure differential indicator which was above the associated filter replacement setpoint. Several procedure errors were identified and reported to the licensee. Corrective actions were taken by the licensee prior to the end of the inspection period for the identified problems.

Criterion II of 10 CFR 50, Appendix B, states, in part, that "the applicant (the licensee) shall establish . . . a Quality Assurance (QA) Program . . . this program shall be documented by written policies, procedures, or instructions and shall be carried out . . . in accordance with those policies, procedures, or instructions." The Decommissioning QA Plan, as delineated in the Decommissioning Plan, Section 7, establishes the QA Program requirements and their applicability to the Decommissioning Plan. The Procedure DPM 2.1, "QA Manual," Issue 3, procedurizes the QA Plan. The QA Plan, according to this procedure, applies in part to the reactor building ventilation system which was designated as important to decommissioning quality at the time of the inspection. Additionally, Procedure DPM 2.1. Section 3.2, "Compliance," states, in part, that "all personnel shall comply with established policies and procedures. The failure to maintain the reactor building ventilation system in accordance with the approved decommissioning operating procedure is a violation of 10 CFR Part 50, Appendix B. Although NRC identified, this violation is not being cited, because the criteria in paragraph VII.B.1 of Appendix C to CFR Part 2 of the NRC's "Rules of Practice," were satisfied.

The inspector noted that housekeeping, a concern documented in previous inspection reports, had greatly improved since the last inspection. Additionally, a ventilation duct that was previously identified as being damaged and unacceptably repaired with duct tape was noted to have been repaired with a permanent fix.

The number of auxiliary fans found de-energized, contrary to procedure requirements, indicated that minor plant components were not being monitored and maintained at the same level as major components. If the licensee does not believe that the minor components, such as the auxiliary fans, are required to be in operation to support the plant, then the components should be removed from the active decommissioning project procedures. Otherwise, the systems should be operated in accordance with approved system operating procedures.

2.3 Apparent Falsification of Records Issue

The licensee issued a stop work order to the Westinghouse Team on March 28, 1994, in response to the discovery of two blocks of apparently falsified documents involving radiation surveys. The chronology of events leading up to this action is presented below.

On February 18, 1994, the licensee called the Region IV Regional Administrator to provide an update status of the facility and to provide an update on the confrontation incident that took place between a MK-Ferguson supervisor and a

radiation protection worker on February 4, 1994. The licensee also informed the NRC that a third party was going to be used to investigate internal conflicts and accusations that were voiced to management personnel during employee staff meetings. The licensee wanted the NRC to know that their actions were proactive and were not in response to any NRC investigation or inspection findings. The independent investigation team consisted of three contractors and one licensee person and the team began their assessment the week of March 7, 1994.

About a week into the independent investigation, the team revealed preliminary indications of a scheme involving the falsification of records in the area of radiation protection. Licensee management was immediately informed of the findings. The licensee decided to discuss the situation with upper management of the Westinghouse team. Immediate corrective actions taken by the Westinghouse team included requesting the services of two Scientific Ecology Group (SEG) associates to perform an independent assessment of the radiation protection records. The second independent team began their assessment during the week of March 21, 1994. The investigation by the SEG associates revealed the failure of personnel to follow procedures and the falsification of records with the intent to mislead in two areas. The first area involved records supporting the release of materials from the site for unrestricted use. The second area involved records supporting radiation work permits (RWPs) on Level 11 (refueling floor) of the reactor building. The SEG team assessment was presented to the licensee on March 24, 1994.

On March 25, 1994, the licensee reported to the NRC Region IV office that certain radiation survey records apparently had been falsified for surveys required to have been conducted between 1992 and early 1993. According to the licensee, the preliminary results of investigation disclosed that from September to December 1992, radiation surveys related to the release of material from the site were not documented in every case but were documented fictitiously at a later time. The documentation was generated around February 1993 from log entries and memory. Surveys were then backdated to indicate that the supporting documentation was generated at the time the material was released. In addition, in early 1993, radiation surveys related to RWPs were not consistently documented but were documented fictitiously at a later time. Apparently, personnel improperly used general area surveys to take credit for RWP specific surveys. The licensee also believed that there were no significant personnel safety implications resulting from the alleged inappropriate actions identified based in part on log entries, interviews with personnel, dosimeter readings, and no observed contamination uptakes. The licensee believed that no material was shipped offsite with contamination but had not yet established clear evidence for this conclusion.

On March 28, 1994, the licensee issued a stop work order requiring that certain actions be completed by the Westinghouse team prior to the restart of work. Additionally, no material was allowed to be removed from the radiologically controlled areas of the plant until further notice. The stop work order had 11 conditions that had to be satisfied prior to restart of work activities. Immediate corrective actions planned included training for all site personnel, reviewing all active RWPs, expanding the SEG assessment team, and continuing the licensee's third party assessment team. The SEG team was

expanded to nine individuals including several Westinghouse corporate personnel. Two individuals were placed on administrative leave pending further licensee review and assessment.

On April 8, 1994, the licensee approved the proposed reorganization of the onsite SEG staff. Overall, the change increased the number of workers from 42 to 53 with an additional 6 temporary staff members. The position of Manager of Radiation Protection Operations was created, and the position was filled by the former Technical Support Supervisor. Several other supervisory positions were created, and some old ones were eliminated.

On April 9, 1994, the Decommissioning Safety Review Committee (DSRC) convened to consider the Westinghouse team's request to perform startup activities. The DSRC concluded that startup could commence effective April 11, 1994, with several conditions. The restart permission was granted, in part, because the safety implications had been properly addressed; however, the root cause analysis portion of the assessments was still incomplete at that time. Limited work activities began in the reactor building on April 11, 1994, including building cleanup and updating RWPs. The licensee lifted the stop work order on April 12, 1994. Longer term corrective actions planned included increasing the frequency of performing quality assurance audits in the radiation protection area, continuing with the review of radiation protection documents and records (this is expected to take until August 1994), and completing the root cause analysis of the events.

The NRC plans to follow up on the assessment team findings. Of particular concern or interest to the NRC will be the root cause determinations and the corrective actions planned or taken for the root causes. The licensee's assessment that no personnel health or safety impacts occurred and that no material was improperly released from the sight will be reviewed during a future inspection.

This subject area, the apparent falsification of records and the implications associated with it, is considered an unresolved item (50-267/9403-01) pending further NRC review.

2.4 Conclusions

The licensee permanently exited several DTS and license requirements following removal of all activated graphite components from the reactor building.

The fire water system was inspected and found to be correctly aligned for standby operation. The reactor plant ventilation system was also inspected, and many fans and air handling units were found to be off, contrary to procedure requirements. The failure to maintain the reactor plant ventilation system in accordance with procedural requirements was a violation (noncited) of the QA program requirements. The licensee was doing a good job of maintaining proper operation of major plant components; however, the inspection findings suggest that the minor plant components need a higher level of oversight. Plant housekeeping, previously identified as a concern, had greatly improved since the last inspection.

The licensee reported to the NRC that two blocks of apparently falsified documents were identified during a licensee initiated self-assessment. This issue is considered an unresolved item pending further NRC and licensee assessment team review.

3 PLANT PROCEDURES (42700)

Plant procedures were inspected to ascertain whether the procedures have been developed and implemented in accordance with regulatory requirements and to ascertain whether the procedures are technically adequate. Specific items inspected included ensuring that: the review and approval process was properly implemented, procedures were revised when the Technical Specifications (TS) were revised or following 10 CFR 50.59 evaluations, procedure content was consistent with the Decommissioning Plan requirements, temporary procedures were properly maintained, and procedures existed for plant exposure to a freezing environment.

3.1 Details

Written procedures that are required to be established, implemented, and maintained for the decommissioning program are listed in the DTS, Section 5.4.1, and the Decommissioning Plan, Section 7.7.2. All procedures that are required by the DTS and the Plan have been approved and were in place for use, except the final site survey implementing procedures. The final site survey procedures are not required at this time in the project. Additionally, the inspector confirmed that the licensee had revised all applicable procedures in response to all proposed DTS amendments and 10 CFR 50.59 changes in 1993.

One deficient administrative procedure was identified. The "PSC Procedure Review and Approval Matrix," DPP 1.0.2.2, Issue 2, provided detailed guidance on the review and approval requirements applicable to those manuals and procedures developed by the licensee for use during the decommissioning project. Essentially, the procedure provided a cross-reference matrix of all procedures including which group had lead responsibility for the procedures and which groups were responsible for review and approval of the procedures. This procedure had not been effectively maintained. Procedures were developed, deleted, or the review and approval responsibilities were revised; however, these changes did not result in a change to the matrix procedure as required by the administrative procedures. Additionally, lead managers were not fulfilling their responsibilities, delineated in other administrative procedures, to keep the matrix procedure updated when procedures in their area were added, deleted, or revised from the matrix. The matrix procedure was designed to be a living document, but the procedure had not been updated since December 1992. The NRC inspector identified several new procedures which should have forced a revision of the matrix procedure in early 1993. For example, the Procedure DPP 3.1.5-47A, "Preparing For Cold Weather Season," Issue 2, was approved in February 1993 but was not added to the matrix.

The licensee had previously identified the deficient procedure. A procedure change form was initiated in January 1994 to delete the matrix procedure. Also, a quality assurance audit in February 1994 noted a problem with the

matrix procedure. The written response to the audit finding was that the revision to delete the procedure was being processed. At the time of the inspection (April 1994), the procedure had not been deleted. The timeliness of the procedure revision process for the matrix procedure was determined to be less than adequate. This issue indicated a lack of attention to details and warranted further management attention.

Two system operating procedures, the fire water and reactor plant ventilation systems, were reviewed and walked down in the plant (details of the walkdown observations are provided in Section 2.2 of this report). The procedures were considered adequate for the project. The procedures contained a large number of minor problems that could have been easily identified and corrected during a procedure verification and validation process. For example, one procedure referenced the wrong motor control center location in the power supplies checklist, the wrong name was given to several indications located on control panels, and one annunciator engraving was different from the title given in the procedure. The operating procedures did provide enough information to allow them to be workable in the plant. All specific comments were given to the licensee's project assurance department, and appropriate corrective actions were taken prior to the end of the inspection.

3.2 Conclusions

The licensee had developed and implemented all procedures, except one set, as required by the DTS and the Decommissioning Plan. The undeveloped set of procedures was not required at this stage in the project. The inspection indicated that more management attention was needed in the area of maintenance of administrative procedures. The two system operating procedures that were reviewed were found to be adequate for the project; however, the procedures contained a large number of problems that should have been found and corrected during a verification and validation process prior to implementation. The procedures did provide enough detail to allow for adequate operation of the systems; therefore, a safety concern did not exist.

ATTACHMENT

1 PERSONS CONTACTED

1.1 Licensee Personnel

F. Borst, Facility Support Manager
R. Carrillo, Project Engineer
S. Chesnutt, Senior Nuclear Licensing Engineer
M. Fisher, Deputy Director, Decommissioning Program
R. Heggen, Project Controls
M. Holmes, Project Assurance Manager
J. McCauley, Project Engineer
D. Seymour, Senior Quality Assurance Engineer, Project Assurance
D. Warembourg, Director, Decommissioning Program

1.2 Contractor Personnel

B. Dyke, Licensing Engineer, Westinghouse
W. Hug, Site Operations Manager, MK-Ferguson
M. Kachun, Lead Site Quality Engineer, Westinghouse
V. Likar, Technical Services Manager, Westinghouse
J. Parsons, Radiation Protection Manager, Scientific Ecology Group
D. Sexton, Radiation Protection Operations Manager, Scientific Ecology Group
H. Story, Project Radiation Protection Manager Support, Scientific Ecology Group

The personnel listed above attended the exit meeting. In addition to the personnel listed above, the inspector contacted other personnel during this inspection period.

2 EXIT MEETING

An exit meeting was conducted on April 14, 1994. During this meeting, the inspector reviewed the scope and findings of the report. The licensee did not identify as proprietary any information provided to, or reviewed by, the inspector.