



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

September 1, 1995

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

SUBJECT: PREDECISIONAL ENFORCEMENT CONFERENCE WITH FORT ST. VRAIN

This refers to the Predecisional Enforcement Conference conducted at the NRC's request in the Region IV office on August 29, 1995. This meeting related to activities authorized by NRC License DPR-34 for Fort St. Vrain and was attended by those on the attached Attendance List.

The subjects discussed at this meeting are described in the enclosed Meeting Summary.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

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

Sincerely,

Ross A. Scarano
for Ross A. Scarano, Director
Division of Radiation Safety
and Safeguards

Docket: 50-267
License: DPR-34

Enclosure: Meeting Summary w/attachments

cc w/enclosure:
Public Service Company of Colorado
ATTN: M. H. Holmes
Project Assurance Manager
16805 Weld County Road 19-1/2
Platteville, Colorado 80651

9509J70140 950901
PDR ADOCK 05000267
Q PDR

Public Service Company
of Colorado

-2-

GA International Services Corporation
Fort St. Vrain Services
ATTN: David Alberstein, Manager
P.O. Box 85608
San Diego, California 92138

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: Patricia T. Smith, Senior Vice
President and General Counsel
P.O. Box 840
Denver, Colorado 80201-0840

Chairman
Board of County Commissioners
of Weld County, Colorado
Greeley, Colorado 80631

Regional Representative
Radiation Programs
Environmental Protection Agency
1 Denver Place
999 18th Street, Suite 1300
Denver, Colorado 80202-2413

Colorado Department of Health
ATTN: Robert M. Quillin, Director
Radiation Control Division
4300 Cherry Drive South
Denver, Colorado 80220-1530

Colorado Public Utilities Commission
ATTN: Ralph Teague, P.E.
1580 Logan Street OLI
Denver, Colorado 80203

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

Public Service Company
of Colorado

-3-

Scientific Ecology Group, Inc.
ATTN: Mr. Don Neely
Vice President
628 Gallaher Road
Oak Ridge, Tennessee 37763

bcc to DMB (IE01) |||

bcc distrib. by RIV:

- L. J. Callan, RA
- C. L. Cain, DRSS/FCDB
- F. A. Wenslawski, WCFO
- R. J. Evans, DRSS/FCDB
- J. T. Greeves, NMSS/DWM (T7J9)
- L. Bell, NMSS/DWM/LLDP (T7F27)
- C. L. Pittiglio, NMSS/DWM (T7F27)
- P. B. Erickson, NRR/DOPS (011B20)
- J. D. Weiss, OC/LFDCB (T9E10)
- MIS System
- RIV Files
- FCDB

DOCUMENT NAME: O:\FCDB\RJE\MEETING.LTR

To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

| | | | | | |
|-------------|----------|---------------|-----------|--|--|
| RIV:FCDB | C:FCDB | DD:DRSS | D:DRSS | | |
| RJEvans RJE | CLCain | DDChamberlain | RAScarano | | |
| 08/30/95 | 08/31/95 | 08/1/95 | 08/ /95 | | |

bcc to DMB (IE01)

bcc distrib. by RIV:

L. J. Callan, RA
C. L. Cain, DRSS/FCDB
F. A. Wenslawski, WCFO
R. J. Evans, DRSS/FCDB
J. T. Greeves, NMSS/DWM (T7J9)
L. Bell, NMSS/DWM/LLDP (T7F27)
C. L. Pittiglio, NMSS/DWM (T7F27)
P. B. Erickson, NRR/DOPS (011B20)
J. D. Weiss, OC/LFDCB (T9E10)
MIS System
RIV Files
FCDB

DOCUMENT NAME: O:\FCDB\RJE\MEETING.LTR

To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

| | | | | | |
|-------------|----------|---------------|-----------|--|--|
| RIV:FCDB | C:FCDB | DD:DRSS | D:DRSS | | |
| RJEvans RJE | CLCain | DDChamberlain | RAScarano | | |
| 08/30/95 | 08/31/95 | 08/1/95 | 08/ /95 | | |

ENCLOSURE

MEETING SUMMARY

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

Facility: Fort St. Vrain Nuclear Generating Station

Licenses: DPR-34
SNM-2504

Dockets: 50-267
72-009

Subject: Predecisional Enforcement Conference

On August 29, 1995, representatives of Public Service Company of Colorado (PSC), Scientific Ecology Group, Inc. (SEG), and Westinghouse Electric Corporation met with Region IV personnel in Arlington, Texas, to discuss the apparent violation of 10 CFR 50.5, "Deliberate Misconduct," and 50.9, "Completeness and Accuracy of Information," during decommissioning activities at Fort St. Vrain. The attendance list is attached as Attachment 1 to this Letter. The licensee's handout at the meeting is attached as Attachment 2. The meeting was held at the request of the NRC.

The meeting agenda included:

- Introduction of conference attendees.
- Opening remarks by the NRC's Deputy Regional Administrator.
- A description of the current enforcement process by the Enforcement Officer.
- A description of the apparent violations and the regulatory concerns associated with the apparent violations.
- Introduction and opening remarks by the PSC Vice President of Electric Operations, followed later by a description of PSC's actions.
- A description of SEG's actions and corporate considerations.
- Closing remarks by the PSC Vice President and Deputy Regional Administrator.

Attachments:

1. Attendance List
2. Meeting Handout

ATTACHMENT 1

ATTENDANCE LIST

Attendance at the Public Service Company of Colorado - NRC meeting held on August 29, 1995, at the Region IV office:

Public Service Company of Colorado (PSC)

H. Arrowsmith, President, SEG
T. Borst, Radiation Protection Manager, PSC
L. Campagna, Legal Counsel, Westinghouse
A. Crawford, Vice President, Electric Operations, PSC
M. Fisher, Decommissioning Program Director, PSC
M. Holmes, Project Assurance Manager, PSC
T. Howard, Project Director, Westinghouse
M. Lauer, Senior Radiological Engineer, SEG
D. Neely, Vice President, SEG
F. Prager, Legal Counsel, PSC
D. Warembourg, Consultant, PSC

NRC, Region IV

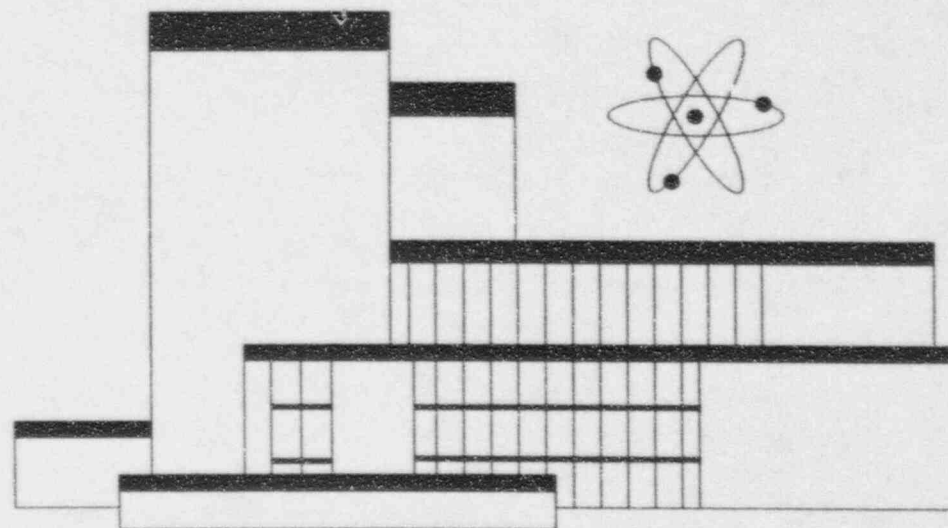
L. Bell, Section Leader, Low Level Waste and Decommissioning Projects Branch,
Division of Waste Management, Office of Nuclear Material Safety and
Safeguards
W. Brown, Regional Counsel
C. Cain, Chief, Fuel Cycle and Decommissioning Branch, Division of Radiation
Safety and Safeguards
S. Collins, Deputy Regional Administrator
R. Evans, Health Physicist, Fuel Cycle and Decommissioning Branch,
Division of Radiation Safety and Safeguards
J. Greeves, Director, Division of Waste Management, Office of Nuclear
Materials Safety and Safeguards
R. Rosano, Office of Enforcement
G. Sanborn, Enforcement Officer
R. Scarano, Director, Division of Radiation Safety and Safeguards

ATTACHMENT 2

MEETING HANDOUT

Attached is the handout provided to the NRC during the August 29, 1995, meeting in the Region IV office.

FORT ST. VRAIN



**NUCLEAR REGULATORY COMMISSION
PREDECISIONAL ENFORCEMENT CONFERENCE**

AUGUST 29, 1995

FORT ST. VRAIN DECOMMISSIONING PROJECT

NUCLEAR REGULATORY COMMISSION

PREDECISIONAL ENFORCEMENT CONFERENCE

REGARDING FALSIFIED RADIATION SURVEY DOCUMENTS

***PUBLIC SERVICE COMPANY OF COLORADO
SCIENTIFIC ECOLOGY GROUP***

AUGUST 29, 1995

AGENDA

Introduction and Opening Remarks

A. C. Crawford

SEG Actions

D. R. Neely

- Summary Overview
- SEG Root Cause Factors
- Missed Opportunities for Earlier Identification
- Self-Identification Aspects
- Safety Significance
- Corrective Actions
- Mitigation Factors, Discretionary Considerations

SEG Corporate Considerations

H. W. Arrowsmith

- Corporate Actions
- Closing Remarks

PSCo Actions

A. C. Crawford

- Summary of Key PSCo Actions
- PSCo Root Cause Factors
- Missed Opportunities for Earlier Identification
- Corrective Actions
- Civil Penalty Factors
- Discretionary Considerations
- Closing Remarks

Questions/Discussion

INTRODUCTION AND OPENING REMARKS

Public Service Company of Colorado (PSCo) and Scientific Ecology Group (SEG) Are Here To Discuss the Falsification of Radiation Survey Documents and Our Corrective Actions

In August 8, 1995, Letter, NRC Stated That It Appeared That Violations of NRC Requirements Have Occurred:

10 CFR 50.9, Accuracy of Records

10 CFR 50.5, Deliberate Misconduct

PSCo Self-Identified Falsified Radiation Survey Documents During March 1994 Independent Investigation Conducted by Stier, Anderson, and Malone, Which Cost PSCo Approximately \$ 1 Million

We Discussed This Serious Issue With You on August 4, 1994 -- After Reviewing the Investigation Report and Related Documentation, PSCo and SEG Admit the Violations

INTRODUCTION AND OPENING REMARKS

(Continued)

Stier, Anderson, and Malone Investigation Found Instances of Failure to Follow Procedures and Apparent Falsification of Survey Records With Intent to Mislead:

- *14 Records Supporting Release of Materials From the FSV Site for Unrestricted Use, From September to December 1992*
- *30 Records Supporting Work Under Radiation Work Permits (RWPs) in First Quarter 1993*
- *One Survey Record Supporting Release of the Hot Service Facility Plug in September 1993*

PSCo and the Westinghouse Team (WT) Concluded That:

- **THERE WERE NO SIGNIFICANT SAFETY IMPLICATIONS**
- **MATERIALS RELEASED FROM THE FSV SITE HAD BEEN SURVEYED PRIOR TO RELEASE, AND NO RADIOACTIVE MATERIAL WAS INAPPROPRIATELY RELEASED FROM THE SITE**
- **WORKERS AND MEMBERS OF THE PUBLIC DID NOT RECEIVE UNEXPECTED RADIATION EXPOSURES**

FORT ST. VRAIN DECOMMISSIONING PROJECT

NUCLEAR REGULATORY COMMISSION

**PRE-DECISIONAL ENFORCEMENT CONFERENCE
REGARDING FALSIFIED RADIATION SURVEY DOCUMENTS**

**Presented by Vice President of Scientific Ecology Group, Inc.
DONALD R. NEELY**

AUGUST 29, 1995

AGENDA

- **Position on NRC's Findings of Apparent Violations**
- **Summary Overview**
- **Root Cause Factors**
- **Missed Opportunities For Earlier Identification**
- **Self-Identification Aspects**
- **Determination of Safety Significance**
- **Evidence of Comprehensive and Effective Corrective Actions**
 - **Immediate**
 - **Lasting**
- **Mitigation Factors and Discretionary Considerations**
- **SEG Corporate Actions**
- **SEG Closing Remarks**

D. R. Neely

H. W. Arrowsmith

POSITION ON NRC'S FINDINGS OF APPARENT VIOLATIONS

- **NRC Letter Dated August 8, 1995 Documents NRC's Findings**
 - I. Violations of NRC Requirements Associated With Accuracy of Records (10 CFR 50.9, "Completeness and Accuracy of Information") Appear To Have Occurred**
 - **SEG Admits To A Violation of 10 CFR 50.9**

 - II. Violations of NRC Requirements That Prohibit Deliberate Misconduct (10 CFR 50.5, "Deliberate Misconduct") Appear To Have Occurred**
 - **SEG Admits To A Violation of 10 CFR 50.5**

SUMMARY OVERVIEW

- **March 17, 1994 ⇒ PSCo Received an Allegation Involving Possible Falsification of Radiation Protection (RP) Records and Began an Inquiry**
- **March 18, 1994 ⇒ PSCo VP Telephones Senior Executives of Westinghouse Team (Westinghouse, SEG, and Morrison Knudsen) To Discuss Allegations**
- **March 21, 1994 ⇒ SEG President Dispatches Two Senior Staff from Home Office To Perform an Independent Preliminary Assessment of Allegations**
- **March 24, 1994 ⇒ SEG Confirms Evidence Indicating Falsification of Survey Records**

SUMMARY OVERVIEW

(Continued)

- **March 25, 1994**

- **Westinghouse Team (WT) Voluntarily Suspends All Physical Work at the Site**
- **PSCo and WT Preliminarily Conclude That No Significant Safety Impacts Have Resulted**
- **PSCo and WT Inform NRC Region IV of Preliminary Findings**
- **PSCo Endorses WT Stop Work Decision and Verbally Outlines Actions Required for Restart**
- **WT Initiates a Safety Assessment (Pursuant to SEG's 10 CFR 21 Procedure)**
- **SEG Initiates a Full Scope Management Oversight Risk Tree (MORT) Assessment of RP Program**

- **March 28, 1994**

- **PSCo Issues a Written Stop Work Order With Numerous Restart Requirements**

SUMMARY OVERVIEW

(Continued)

- **April 11, 1994 ⇒ WT Safety Assessment Report Issued**
 - **Findings:**
 - **Evidence Exists of Falsification of Records Related To Surveys Used To Support Radiation Work Permits (RWPs) During January and February 1993**
 - **Survey Forms Documenting Unconditional Release of Material In Late 1992 Were Reconstructed and Backdated in Early 1993, Also Constituting Falsification of Records**
 - **Conclusions:**
 - **No Worker or Public Health and Safety Impacts Resulted**
 - **No Radioactive Material Was Inappropriately Released From the Site**
 - **Based on This Assessment and Other Required WT Actions, PSCo Authorized Restart**

SUMMARY OVERVIEW

(Continued)

- **July, 1994 ⇒ Radiological Improvement Plan Initiated by SEG In Response to MORT Findings**
 - **All 339 Corrective Action Items Have Been Closed**

- **August 4, 1994 ⇒ Meeting Held with NRC Region IV To Present Findings of PSCo and SEG/WT Internal Investigations and Assessments and Provide Information on PSCo and SEG/WT Corrective Actions**

- **August 10, 1994 ⇒ All PSCo and WT Site Personnel Meeting Held to Summarize Status of Investigations and Assessments and to Reinforce Site Management's Core Values and Workplace Conduct Expectations**
[A copy of the overheads was sent to NRC June 9, 1995]

SUMMARY OVERVIEW

(Continued)

- **March 1995 ⇒ Final PSCo Third Party Investigation Report Issued**
 - **Findings:**
 - **In Feb. 1993, 14 Radiation Survey Forms Documenting Unconditional Release of Material Were Backdated**
 - **In March 1993, 9 RWP Survey Forms Were Backdated Based on Admissions of 2 RP Technicians - 19 Survey Forms Appeared To Have Been Backdated But Lack Conclusive Evidence - 2 Survey Forms Acceptable**
 - **Sept. 27, 1993, A Survey Documenting Unconditional Release of Hot Service Facility (HSF) Plug Was Falsified**
 - **Conclusions:**
 - **No Indication That Higher Level SEG (Above First Line RP Supervisors), WT, or PSCo Management Was Aware of Falsification**
 - **Evidence Did Not Establish Underlying Motivation for Backdating**
 - **Backdating Did Not Result In Any Adverse Impact to Public or Worker Health and Safety**
 - **No Radioactive Material Was Inappropriately Released From the Site**

ROOT CAUSE FACTORS

- **SEG Site Management Did Not Perform Management Activities Properly**
 - **Lack of Project Radiation Protection Manager Oversight and Involvement**
 - **Self-Assessment Program Was Inadequately Implemented**
 - **First Line RP Supervisors Assumed Inappropriate Levels of Authority Over RP Technicians Without Knowledge or Approval of Senior SEG Site Management**
 - **Radiological Occurrence Reporting System Was Not Functioning as Designed**

- **Inadequate Implementation of SEG and Westinghouse Quality Assurance (QA) Program Interface**

- **Inadequate Implementation of SEG Open Door Policy**

- **Inadequate RP Program Staffing**

- **Disregard By Some RP Supervisors and Technicians To Fully Comply With RP Procedures**

MISSED OPPORTUNITIES FOR EARLIER IDENTIFICATION

- **First Line RP Supervisors Failed to Use Radiological Occurrence Report (ROR) Process When Missing Survey Documentation Was Brought to Their Attention**
 - **Prevented Senior Site Management Awareness**

- **Lack of Adequate SEG Site Management Oversight and Involvement in RP Activities**
 - **Prevented Earlier Identification**

- **Ineffective Implementation of Self-Assessment Program**
 - **Did Not Document or Respond To Initial Findings**
 - **Did Not Perform Required Self-Assessments**

SELF-IDENTIFICATION ASPECTS

Violations Were Self-Identified By SEG

- **SEG RP Technician Identified Potential RP Documentation Discrepancies To SEG and PSCo**
- **Based On This Allegation, SEG Executive Management Immediately Initiated an Independent Investigation**
- **PSCo's Third Party Investigators Conducted a Detailed Parallel Investigation and Corroborated SEG's Findings and Identified Additional Falsification Related To HSF Plug Survey**
- **Violations Were Self-Identified Without An "Event" Occurring**

DETERMINATION OF SAFETY SIGNIFICANCE

Violations Did Not Result In Adverse Impact To Public or Worker Health and Safety

- **WT Safety Assessment Report Supports a Finding of No Significant Safety Impact**
- **SEG MORT Assessment Did Not Identify Evidence of Conditions Adverse To Worker or Public Health and Safety**
- **PSC's Third Party Investigation Concludes That No Adverse Impact To Public or Worker Health and Safety Occurred**

EVIDENCE OF COMPREHENSIVE AND EFFECTIVE CORRECTIVE ACTION

IMMEDIATE Comprehensive and Effective Corrective Actions Implemented

- **Two RP Supervisors Immediately Placed on Administrative Leave**
- **WT Voluntarily Suspended All Physical Work**
- **SEG Immediately Initiated an Independent Investigation Followed By a WT Led Safety Assessment**
- **SEG Immediately Augmented RP Staff on Site**
 - **17 Additional Personnel Prior to Restart - Primarily Senior Personnel With Significant RP Operational Experience**
- **Full Scale MORT Team Assessment Performed Representing a Thorough and Critical Assessment of Entire RP Program:**
 - **Seven Individuals With Over 160 Years Combined Nuclear Experience**
 - **Required Over 2,000 Person-Hours of Onsite Assessment**
 - **SEG Cost of Approximately \$250,000**

EVIDENCE OF COMPREHENSIVE AND EFFECTIVE CORRECTIVE ACTION

IMMEDIATE Comprehensive and Effective Corrective Actions Implemented

(Continued)

- **All Site Management Meeting on March 31, 1994 - Conducted By Senior Executive Management (PSCo, SEG, Westinghouse, and Morrison Knudsen) To Discuss Corporate Core Values and Project Expectations**
[A copy of the overheads and listing of senior executive presenters was sent to NRC June 9, 1995]

- **All RP Technicians Given Special "Restart" Training Concerning Appropriate Methods for Documenting Records Errors and Omissions**

- **Pertinent RP Procedures Were Revised and RP Technician Training Was Conducted Prior To Restart**
 - Unconditional Release of Material
 - Contamination Surveys
 - Control of Radiation Protection Records
 - RP Organization
 - RWP Preparation
 - Survey Documentation
 - Validation and Verification of Procedures

EVIDENCE OF COMPREHENSIVE AND EFFECTIVE CORRECTIVE ACTION

IMMEDIATE Comprehensive and Effective Corrective Actions Implemented

(Continued)

- **April - September 1994, the Following Team Building Training Was Conducted:**
[A copy of the training objectives was sent to NRC June 9, 1995]
 - Communication Skills**
 - Role Of the Manager**
 - Team Building**
 - Conflict Resolution**
 - Coaching and Counseling**

- **SEG and PSCo Jointly Established Restrictions and independent Monitoring of Unconditional Releases of Material**
 - 100 Percent of Material Release Documents Verification By PSCo**

EVIDENCE OF COMPREHENSIVE AND EFFECTIVE CORRECTIVE ACTION

IMMEDIATE Comprehensive and Effective Corrective Actions Implemented

(Continued)

- **All WT Site Personnel Given "Restart" Training**
 - Discussion/Explanation on Why Work Was Stopped
 - Clear Understanding of Documentation Requirements
 - Identification and Communication of Non-Compliances and Use of Stop Work Authority
 - Expected Standards of Conduct

- **PSCo Validated "Restart" Training By Interviewing a Sampling of WT Site Personnel**

- **SEG Deactivated all RWPs then Re-evaluated and Reactivated RWPs Prior to Restart**

- **Established Additional Controls To Ensure Required RWP Surveys Are Performed**

- **SEG Radiation Protection Program Management Office Was Moved Inside the Restricted Area To Provide Better Management/Worker Accessibility and Interface**

EVIDENCE OF COMPREHENSIVE AND EFFECTIVE CORRECTIVE ACTION

LASTING Comprehensive and Effective Corrective Actions Implemented

- **SEG Re-Organized RP Department to Enhance Management Involvement and Better Allocate Staff Resources**
 - **Project Radiation Protection Manager Replaced**
 - **Technical Support Supervisor moved to an Alternative Position**
 - **Radiation Protection Operations Supervisor (RPOS) Replaced**
 - **Radiation Protection Operations Shift Supervisor Replaced**
 - **Added A Third Radiation Protection Operations Shift Supervisor Position**
 - **Increased Overall Operations and Support Staffing Levels (Within 4 Months Increased by 70 Percent)**

- **Actions Taken With Personnel Directly Involved**
 - **RPOS Involved in Material Release Survey Issue and RWP Survey Issue - Terminated**
 - **RP Operations Day Shift Supervisor Involved in RWP Survey Issue and Unconditional Release Survey Issue (HSF Plug) - Demoted and Offered Transfer, Subsequently Resigned**
 - **Remaining Involved Staff Were Re-Trained and Counseled**

EVIDENCE OF COMPREHENSIVE AND EFFECTIVE CORRECTIVE ACTION

LASTING Comprehensive and Effective Corrective Actions Implemented

(Continued)

- **All Hands Meeting Held August 10, 1994, to Discuss Results of SEG MORT Assessment and PSCo Third Party Investigation and to Re-emphasize Management's Expectations Including:**
 - Verbatim Procedure Compliance, Standards of Conduct, Importance of Records and Individual's Responsibility to Bring Forth Identified Non-Compliances**
[Overheads of this meeting provided to NRC June 9, 1995]

- **To Ensure all Site Personnel and New Hires Understand Procedural Documentation Responsibilities, General Employee Training and General Employee Retraining Emphasizes:**
 - Documentation Requirements (Errors and Omissions)**
 - Non-Compliance Identification and Communication Methods**
 - Stop Work Authority**
 - Consequences of Procedural Non-Compliance**

EVIDENCE OF COMPREHENSIVE AND EFFECTIVE CORRECTIVE ACTION

LASTING Comprehensive and Effective Corrective Actions Implemented

(Continued)

- **WT Has Completed a Review of All 1992 and 1993 RP Records to Ensure Project Activities Are Supported by a Complete and Accurate Records System**
 - **Encompassed Over 54,000 Pages of Records**

- **Radiological Improvement Program Implemented 339 Improvement Items In Response to MORT Findings**
 - **Required Approximately 23,000 Person-Hours of Corrective Action Development/Implementation and Program Improvement**
 - **SEG Cost of Approximately \$1.8 Million**

- **SEG Enhanced and Strengthened Implementation of Site Open Door Policy and Re-Emphasized Corporate Open Door Policy**

EVIDENCE OF COMPREHENSIVE AND EFFECTIVE CORRECTIVE ACTION

LASTING Comprehensive and Effective Corrective Actions Implemented

(Continued)

- **ROR System Has Been Improved**
 - **ROR Procedure and Process Revised**
 - **Management Has Communicated That ROR Is To Be Used As A Tool To Identify and Correct Deficiencies**
 - **SEG Supervisors Were Sensitized To Need To Use ROR In A Positive Manner**
 - **PSCo and SEG Management Involvement In ROR Process Was Increased**
 - **Added Requirement For Root Cause Evaluation**

- **SEG and PSCo Management Oversight Enhanced**
 - **Mechanisms Now In-Place to Provide SEG Vice President Capability To Rapidly Initiate Corporate Independent Assessments at FSV or Other SEG Projects**
 - **PSCo Oversight and Monitoring Activities Enhanced**

- **Enhanced QA Program**
 - **QA Procedural Revisions Clarified SEG and Westinghouse Programs and Responsibilities**
 - **Onsite WT QA Personnel Received RP Program Procedural Training**

MITIGATION FACTORS AND DISCRETIONARY CONSIDERATIONS

Violation Severity Level/Penalty Assessment Factors

- **Based on the NRC's Enforcement Policy (NUREG-1600), No Civil Penalty Should Be Assessed and Any Violation Should be No Greater Than Severity Level III**
 - **There Was Clear Self-Identification of the Issues Without An "Event" Occurring**
 - **SEG Has No Previous NRC Escalated Enforcement Action**
 - **There Was No Upper SEG Site or Corporate Management Prior Knowledge of Falsification**
 - **Violations Did Not Result In Adverse Impact to Public or Worker Health and Safety**
 - **Management Took Both Immediate and Lasting Comprehensive and Effective Corrective Action to Address Documentation Issues and the Overall Radiation Protection Program at FSV**
 - **There is No Evidence That the Rationale Behind the Instances of Backdating Was to Foster Production Over Safety and SEG Gained No Economic Advantage As a Result**

MITIGATION FACTORS AND DISCRETIONARY CONSIDERATIONS

Use of Enforcement Discretion Is Appropriate

- **Based on the NRC's Enforcement Policy (NUREG-1600), NRC Use of Enforcement Discretion Is Appropriate**
 - **Violations Have Received Attention at the Highest Levels of SEG Management, Resulting in Comprehensive and Effective Corrective Actions**
 - **Minimal Number of Records Involved and the Short Duration and Isolated Nature of the Instances of Falsification**
 - **SEG Already Has Expended Significant Additional Financial, Personnel and Technical Resources to Prevent Recurrence**
 - **The Overall Sustained Positive Performance of Decommissioning Activities at FSV by WT, Including SEG, has been Consistently Acknowledged by the NRC**

FORT ST. VRAIN DECOMMISSIONING PROJECT

NUCLEAR REGULATORY COMMISSION

**PRE-DECISIONAL ENFORCEMENT CONFERENCE
REGARDING FALSIFIED RADIATION SURVEY DOCUMENTS**

**Presented by President of Scientific Ecology Group, Inc.
H. W. ARROWSMITH**

AUGUST 29, 1995

SEG CORPORATE ACTIONS

- **The FSV Issues Have Received the Attention of SEG Management at the Highest Corporate Level**

- **Lessons Learned Have Contributed to Overall Enhancement To the SEG Organization As It Relates To Procedural Compliance Demonstration and Adherence To NRC Regulatory Requirements**
 - **Management Oversight Group Formed at Corporate Level to Monitor Project Management and Staffing Concerns**

 - **SEG Open Door Policy is Emphasized at the Corporate Level and SEG Projects**

 - **FSV Radiological Improvement Program Corrective Action Items Were Integrated Into Corporate and Other Project Procedures**

 - **FSV Issues Have Been Discussed At Corporate Staff Meetings and Other SEG Projects by SEG Vice President**

 - **SEG Executive Self-Assessment Procedure for All Offsite Projects Was Developed and Implemented (Particularly Effective for Identifying and Assessing Procedure Non-Compliance or Personnel Performance Problems)**

SEG CLOSING REMARKS

- **SEG Has Admitted to Violations Of 10 CFR 50.5 and 10 CFR 50.9**

- **Corrective Actions Went Far Beyond The Identified Violations and Are Being Applied Throughout SEG's Operations**

- **SEG Has Never Been Involved In NRC Escalated Enforcement**

- **I Believe That There Are Relevant Circumstances Which Support Consideration By The NRC For A Lower Violation Severity Level and No Civil Penalty Assessment**
 - **Violations Were Self-Identified Without An "Event" Occurring**

 - **Violations Did Not Result In Adverse Impact To Public or Worker Health and Safety**

 - **Comprehensive and Effective Immediate and Lasting Corrective Actions Were Implemented To Ensure That There Will Be No Recurrence**

SUMMARY OF KEY PSCo ACTIONS

A Brief Summary of the Key Actions Undertaken by PSCo is Provided, to Highlight the Promptness of Management Involvement and Completeness of Our Actions:

- **Upon Discovery of the Apparent Falsification of Radiation Protection Survey Records on March 17, 1994, PSCo Involved Executive Management of All Organizations**
 - **After SEG Independent Assessment Confirmed Apparently Falsified Records, PSCo Endorsed the WT Work Stoppage on March 25**
 - **PSCo Then Issued a Stop Work Order on March 28, Which Identified Numerous Provisions for the WT to Address Prior to Restart**
- **PSCo Met With Senior Executives and All Site Management of Westinghouse and SEG on March 31, to Discuss Core Values and On-Site Management Responsibilities**
- **The Fort St. Vrain Decommissioning Safety Review Committee Reviewed and Approved the WT Safety Assessment and Corrective Actions Prior to Restart -- Decommissioning Activities Were Shut Down for 16 Calendar Days**

SUMMARY OF KEY PSCo ACTIONS

(Continued)

- **PSCo's Independent Assessment Conducted by Stier, Anderson, and Malone Was Complete in March 1995, and the Report Was Provided to NRC on March 27, 1995**
 - **In-Depth Assessment Involved 9 Months, Approximately \$1 Million**
 - **Interviewed Over 100 People, Reviewed 15,000 Pages of Documentation**
 - **Investigators Had Free Rein and Were Not Restricted in Any Way**
 - **PSCo Committed 1 Full Time Radiation Protection Professional To Assist Investigation Team**

PSCo ROOT CAUSE FACTORS

- **Strong Positive Performance in Radiation Protection Resulted in False Sense of Security and Inadequate Management Oversight**
 - Performance Indicators Showed Excellent ALARA Program
 - Good Reports From NRC Resident Inspector
 - Management Developed Inappropriate Complacency

- **Oversight Activities Were Focused on Performance Versus Compliance**
 - Work Activities Were Reviewed Against Work Package Requirements
 - Documentation Review Was Not Emphasized

- **QA Audit Program Did Not Identify SEG Self Assessment Program Was Inadequately Implemented**

MISSED OPPORTUNITIES FOR EARLIER IDENTIFICATION BY PSCO

- **Lack of Oversight Emphasis on Records**
 - **Records Reviews Were Conducted on Sample Basis During QA Audits Rather Than During Daily Oversight**

- **June 1993 QA Audit of Radiation Protection Identified 10 Deficiencies**
 - **Errors Identified in Radwaste Shipping Documentation and Instrument Calibration Documentation -- First Indication That Radiation Protection Records Should Have Been Examined More Closely**

PSCo CORRECTIVE ACTIONS

- **PSCo Site Management Met With All Oversight Personnel to Emphasize Importance of Oversight Function and Communicate Expectations**

- **PSCo Enhanced Oversight Personnel Activities**

- **PSCo Radiation Protection Representatives Enhanced Oversight of Material Releases**
 - **Observe Material Release Surveys, On Sample Basis**
 - **Perform Independent Surveys of Material, On Sample Basis**
 - **Review All Material Release Records and Survey Data Prior to Release for Unrestricted Use**

- **PSCo Expanded Formal Monitoring Program to Provide Better Control and Documentation of All Project Oversight Activities**

PSCo CORRECTIVE ACTIONS

(Continued)

- **PSCo Re-Emphasized Open Communications Between Radiation Protection Work Force and Oversight Personnel**
 - **Concerns Can be Identified Early and Brought to Management Attention**
- **PSCo Management Meets With WT Management on Weekly Basis, as a Minimum**
- **PSCo Established and Maintains an Ombudsman (Hot Line) Where Concerns Can Be Identified in a Confidential Manner**
- **Exit Interview Program Implemented**

CIVIL PENALTY FACTORS

Your August 8, 1995 Letter Asked PSCo and SEG to Address the Civil Penalty Factors in the NRC's New Enforcement Policy (NUREG-1600)

PSCo and SEG Believe This Violation Should Be No More Than Severity Level III And No Civil Penalty Should Be Assessed, In Accordance With the Guidance in NUREG-1600:

- **All Radiation Protection Records Violations Were Self-Identified -- a Contractor Employee Volunteered Information to PSCo**

- **There Was Immediate PSCo and SEG Management Involvement Which Resulted In Prompt and Comprehensive Corrective Actions**

- **PSCo's and SEG's Corrective Actions Were Effective Both in Correcting the Immediate Problem at the Time of Discovery and in Preventing Long Term Recurrence**
 - **No Further Records Falsifications Have Been Identified During Records Reviews or During Discussions With Workers**

CIVIL PENALTY FACTORS

(Continued)

- **There Was No Impact on Public Health and Safety or the Environment**

- **There Was No Safety Significance**
 - **The WT Safety Assessment, as Approved by PSCo, Concluded That No Radioactive Material Was Inappropriately Released Offsite**

 - **No Worker or Member of the Public Was Overexposed or Received Unexpected Exposures**

- **PSCo's August 14, 1995, Severity Level II Violation Was Not Related to Radiation Protection Records**

DISCRETIONARY CONSIDERATIONS

PSCo and SEG Consider That NRC Discretion is Warranted and That a Civil Penalty Should be Mitigated for this Violation, for the Following Reasons:

- **Falsified Radiation Protection Survey Records Were Self-Identified**
- **Overall Sustained Positive Project Performance by PSCo, SEG, and the Rest of the Westinghouse Team**
- **Although Falsification of Records is a Serious Matter, In Perspective, the Number of Falsified Survey Records (43) is Minimal Compared to the Tens of Thousands of Survey Records Generated During the Fort St. Vrain Decommissioning Project**
- **The Instances of Records Falsification Occurred During Three Isolated Timeframes**
 - **February 1993, Material Release Survey Forms Were Falsified**
 - **March 1993, RWP Survey Forms Were Falsified**
 - **September 1993, HSF Plug Survey Was Falsified**
- **PSCo and SEG Have Already Expended Substantial Resources to Prevent Recurrence**

CLOSING REMARKS

- **PSCo and SEG Admit the Self-Identified Violations of 10 CFR 50.5 and 10 CFR 50.9**
- **No Radioactive Materials Were Inappropriately Released Offsite and No Workers or Members of the Public Were Overexposed or Received Unexpected Exposures**
- **There Were No Significant Safety Implications Associated With the Falsified Records**
- **PSCo's and SEG's Corrective Actions Were Prompt, Comprehensive, and Ongoing, Ensuring That Decommissioning Activities Are Properly Documented**
- **Our Actions Have Been Effective and Lasting, as Demonstrated Through Numerous Program Assessments and Document Reviews**

CLOSING REMARKS

(Continued)

- **Rest Assured That the Issues Have Received the Very Highest Level of Management Attention and Will Continue to Receive the Attention and Involvement of the Management Teams of PSCo, SEG, and Westinghouse**

- **We Believe Our Actions Speak to This Level of Attention:**
 - **PSCo Action to Bring In Third Party Investigation**
 - **WT Action to Stop Work and Initiate Investigation**
 - **PSCo Action in Stop Work Order and Restart Requirements**
 - **Radiation Program Assessment (MORT)**
 - **Safety Assessments**
 - **Radiological Improvement Plan Including Significant Resource Commitments From SEG**
 - **Corrective Action, Improvements and Enhancements by PSCo, SEG, and Westinghouse as Evidenced Herein**