UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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ARLINGTON, TEXAS 76011-4005

April 7, 2008

Mike Blevins, Executive Vice President
and Chief Nuclear Officer
Luminant Generation Company, LLC
ATTN: Regulatory Affairs
Comanche Peak Steam Electric Station
P.O. Box 1002
Glen Rose, TX 76043

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION - NRC RADIATION SAFETY TEAM INSPECTION REPORT 05000445/2008007 AND 05000446/2008007

Dear Mr. Blevins:

On February 28, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Comanche Peak Steam Electric Station, Units 1 and 2, facility. The enclosed Radiation Safety Team inspection report documents the inspection findings which were discussed with Mr. Rafael Flores, Site Vice President, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license.

The team reviewed selected procedures and records, observed activities, and interviewed personnel. Specifically, the team evaluated the inspection areas within the Radiation Protection Strategic Performance Area that are scheduled for review every two years. These areas are:

- Radiation Monitoring Instrumentation
- Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems
- Radioactive Material Processing and Transportation
- Radiological Environmental Monitoring Program and Radioactive Material Control Program

This inspection report documents one self-revealing violation of very low safety significance (Green). However, because the finding was of very low safety significance and was entered into your corrective action program, the NRC is treating this finding as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy. Additionally, a licensee-identified violation which was determined to be of very low safety significance is listed in this report. If you contest these noncited violations or their significance, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011-4005; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington DC 20555-001; and the NRC Resident Inspector at the Comanche Peak Steam Electric Station.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Michael P. Shannon, Chief
Plant Support Branch
Division of Reactor Safety

Dockets: 50- 445
50-446
Licenses: NPF-87
NPF-89

Enclosure:
NRC Inspection Report
w/Attachment: Supplemental Information

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Sunsi Review Completed: Yes ADAMS: ■ Yes □ No Initials: mps
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ML

RIV:DRS/PSB	PSB	PSB	PSB	PSB
LTRicketson	LCCarsonII	DCGraves	GLGuerra	DLStearns
/RA/	**/RA/**	**/RA/**	**/RA/**	**/RA/**
4/04/08	3/31/08	3/20/08	3/24/08	3/20/08

C:PSB	C:DRP/A	C:PSB		
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/RA/	**/RA/**	**/RA/**		
4/04/08	4/04/08	4/07/08		

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U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Dockets:	50- 445, 50-446
Licenses:	NPF-87, NPF-89
Report No:	05000445/2008007; 05000446/2008007
Licensee:	Luminant Generation Company, LLC
Facility:	Comanche Peak Steam Electric Station, Units 1 and 2
Location:	FM-56, Glen Rose, Texas
Dates:	February 25 – 28, 2008
Inspectors:	L. T. Ricketson, P.E., Senior Health Physicist, - Team Leader L. C. Carson II, Senior Health Physicist D. C. Graves, Health Physicist G. L. Guerra, Health Physicist, CHP D. L. Stearns, Health Physicist
Approved By:	Michael P. Shannon, Chief Plant Support Branch Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000445/2008007, 05000446/2008007; 2/25/08 – 2/28/08; Comanche Peak Steam Electric Station, Units 1 and 2; Radioactive Material Processing and Transportation

The report covered a 4-day period of inspection on site by a team of five region-based health physics inspectors. Based upon the results of the inspection, the team reviewed one self-revealing violation of very low safety significance (Green). One licensee-identified violation is also documented in this report. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609, "Significance Determination Process," (SDP). Findings for which the SDP does not apply may be "Green" or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated July 2006.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Public Radiation Safety (PS)

- Green. The team reviewed a self-revealing, noncited violation of 10 CFR 71.5, which occurred when the licensee failed to ship radioactive material correctly. A radioactive shipment classified as an "excepted package-limited quantity" exceeded the external dose rate limit of 0.5 millirem per hour on the surface of the package. The package recipient identified dose rates of 0.9 millirem per hour on the exterior surface of the package and notified the licensee of the problem. The licensee revised its procedure to correct for this problem by limiting the inner package dose rate to 0.3 millirem per hour, thus reducing the risk for the external dose rate to be more than 0.5 millirem per hour. The finding was placed into the licensee's corrective action program as Smart Form SMF-2006-2403.

  The finding is greater than minor because it was associated with a Public Radiation Safety cornerstone attribute (transportation program) and it affected the associated cornerstone objective because the failure to correctly ship radioactive material decreases the licensee's assurance that the public will not receive unnecessary dose. However, this finding cannot be evaluated by the Public Radiation Safety Significance Determination Process because it did not involve radioactive shipments classified as Schedule 5 through 11, as described in NUREG-1660, and it did not fit traditional enforcement. Therefore, the finding was reviewed by NRC management using Inspection Manual Chapter 0609, Appendix M, and determined to be of very low safety significance because the package was not accessible by the public. Additionally, this finding has a cross-cutting aspect in the area of human performance, work practices component, because the worker preparing the shipment did not use self checking as an error prevention technique to ensure that the package did not exceed the dose rate limit (H4.a). (Section 2PS2).

B. Licensee-Identified Violations

Violations of very low safety significance, which were identified by the licensee, have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective actions are listed in Section 4OA7 of this report.

Report Details

2. RADIATION SAFETY

Cornerstones: Occupational Radiation Safety [OS] and Public Radiation Safety [PS]

2OS3 Radiation Monitoring Instrumentation and Protective Equipment (71121.03)

a. Inspection Scope

This area was inspected to determine the accuracy and operability of radiation monitoring instruments that are used for the protection of occupational workers and the adequacy of the program to provide self-contained breathing apparatus (SCBA) to workers. The team used the requirements in 10 CFR Part 20 and the licensee's procedures required by technical specifications as criteria for determining compliance. The team interviewed licensee personnel and reviewed:

- Calibration of area radiation monitors associated with transient high and very high radiation areas and post-accident monitors used for remote emergency assessment
- Calibration of portable radiation detection instrumentation, electronic alarming dosimetry, and continuous air monitors used for job coverage
- Calibration of whole body counting equipment and radiation detection instruments utilized for personnel and material release from the radiologically controlled area
- Licensee event reports, audits and self-assessments
- Corrective action program reports since the last inspection
- Licensee action in cases of repetitive deficiencies or significant individual deficiencies
- Calibration expiration and source response check currency on radiation detection instruments staged for use
- The licensee's capability for refilling and transporting SCBA air bottles to and from the control room and operations support center during emergency conditions, status of SCBA staged and ready for use in the plant and associated surveillance records, and personnel qualification and training
- Qualification documentation for onsite personnel designated to perform maintenance on the vendor-designated vital components, and the vital component maintenance records for SCBA units

The inspection team completed nine of the required nine samples.

b. Findings

No findings of significance were identified.

2PS1 Radioactive Gaseous And Liquid Effluent Treatment And Monitoring Systems (71122.01)

a. Inspection Scope

This area was inspected to: (1) ensure that the gaseous and liquid effluent processing systems are maintained so that radiological discharges are properly mitigated, monitored, and evaluated with respect to public exposure; (2) ensure that abnormal radioactive gaseous or liquid discharges and conditions, when effluent radiation monitors are out-of-service, are controlled in accordance with the applicable regulatory requirements and licensee procedures; (3) verify that the licensee's quality control program ensures that the radioactive effluent sampling and analysis requirements are satisfied so that discharges of radioactive materials are adequately quantified and evaluated; and (4) verify the adequacy of public dose projections resulting from radioactive effluent discharges. The team used the requirements in 10 CFR Part 20; 10 CFR Part 50, Appendices A and I; 40 CFR Part 190; the Offsite Dose Calculation Manual (ODCM), and licensee procedures required by the Technical Specifications as criteria for determining compliance.

The team conducted in-office inspection and reviewed:

- Appropriate program documents, procedures and evaluations related to the radiological effluent controls program listed in the attachment to this report
- The implementation of the Radiological Effluent Controls Program requirements as described in Radiological Effluent Technical Specifications
- Changes to the liquid or gaseous radioactive waste system design, procedures, or operation as described in the Updated Final Safety Analysis Report
- Changes to the ODCM made by the licensee since the last inspection
- Effluent monitoring instrumentation documentation to ensure adequate methods and monitoring of effluents
- The program for identifying, assessing, and controlling contaminated spills and leaks
- The annual effluent release reports and the correlation to the environmental monitoring results
- The results from Quality Assurance audits

The team conducted an onsite inspection which included interviewing cognizant licensee personnel, performing walkdowns of facilities and equipment, and observing licensee activities to review:

- The gaseous and liquid discharge system configuration;
- Selected point of discharge effluent radiation monitoring systems and flow measurement devices;
- The observation of selected portions of the routine processing and discharge of radioactive gaseous and liquid effluent (sample collection and analysis) including a selection of radioactive gaseous and liquid waste effluent discharge permits;
- Effluent discharges made with inoperable (declared out-of-service) effluent radiation monitors including the projected doses to members of the public;
- Surveillance test results on non-safety related ventilation and gaseous discharge systems (high efficiency particulate air and charcoal filtration) including the methodology to determine the stack and vent flow rates;
- The identification of non-radioactive systems that have become contaminated;
- Effluent monitoring instrument (installed and counting room) maintenance, quality control, and calibration;
- The methods used to determine the isotopes in the plant source term, meteorological dispersion and deposition factors, and hydrogeologic characteristics used in the ODCM and effluent dose calculations including a selection of monthly, quarterly, and annual dose calculations;
- The land-use census;
- The implementation of the voluntary NEI/Industry Ground Water Protection Initiative;
- Records of abnormal gaseous or liquid discharges including the evaluation and analysis of events involving spills or discharges, dose assessments to members of the public, required (or voluntary) offsite notifications, and assessments and reporting of abnormal discharges in the Annual Radiological Effluent Release Report;
- Evaluations of discharges from onsite surface water bodies;
- Routine groundwater monitoring results;
- Self-assessments, audits, and licensee event reports;

- The results of the inter-laboratory comparison program;
- Effluent sampling records;
- The calibration of post-accident effluent monitoring instrumentation and expected accident source.

The team reviewed the licensee's program of problem identification and resolution, including:

- Placement of problems identified through audits, self assessments, and monitoring results into the corrective action program and adequacy of immediate and long term corrective actions;
- Problem identification and resolution follow-up activities;
- Identification of repetitive deficiencies or significant individual deficiencies in problem identification and resolution identified by the licensee's self-assessment activities.

The inspection team completed three of the required three samples.

b. Findings

Introduction: The team identified a potential violation of Technical Specification 3.7.12.2 because the licensee failed to correctly test the primary plant ventilation system. The potential violation is of very low safety significance, but will remain unresolved, pending further testing by licensee to support the effectiveness of its technique.

Description: On February 26, 2008, the team observed in-place filter testing on the primary plant ventilation system. The primary plant ventilation exhaust filter (Unit X-15) contained two banks of high efficiency particulate air (HEPA) filters, separated by charcoal adsorbers. The testing was performed by licensee personnel and generally followed the the guidance in Regulatory Guide 1.52 and ANSI/ASME N510 –1980, in which the HEPA filters are tested by injecting dioctyl phthalate (DOP) aerosol upstream of the filters with the system fan or an auxiliary blower operating. DOP concentration measurements are made upstream and downstream of the HEPA filters and percent penetration is calculated from the ratio of DOP concentrations in the filtered air (downstream reading) and the unfiltered air (upstream reading). The penetration must be less than one percent for the primary plant ventilation system.

The team identified problems with the implementation of the licensee's testing program which could cause a failure to collect representative DOP (particulate) samples and, therefore, non-conservative test results. The licensee did not use sampling nozzles, pitot tubes, or similar devices to ensure particulates were collected from the air stream. Instead, the licensee used flexible plastic, small-diameter tubing (0.19-inch inside diameter) inserted into larger hoses or ducts.

During the test of the first bank of HEPA filters, a manifold was used for sampling the downstream air. The manifold was attached to a hose (1-inch inside diameter) which, in turn, was attached to a vacuum cleaner (flow rate unknown by the licensee). One end of a flexible tube was inserted into the hose between the point where exited the air cleaning unit and the vacuum cleaner. The other end was attached to a penetrometer equipped with a light-scattering aerosol photometer. There was no sampling nozzle and no means of ensuring the end of the tubing was pointed into the air stream. Consequently, there was no means of ensuring the air sample collected was representative of actual DOP concentration in hose. The engineer performing the test stated he had been careful to ensure the tubing was pointed into the air stream. However, the team could not verify this because the duct tape used to secure the tubing into the hose prevented observation. Additionally, the team noted the surveillance test procedure (PPT-SX-7509A, Revision 0) provided no detailed guidance for setting up the test equipment correctly and consistently. This was dependent on the knowledge of the individual conducting the testing.

To measure the downstream concentration after the second bank of HEPA filters, the licensee inserted one end of a piece of a flexible plastic tube to approximately the center of a large duct (approximately 3.2 feet inside diameter) in which the air velocity was approximately 1700 feet per minute. The other end was attached to the penetrometer. Without a rigid sampling nozzle or similar device, the flexible tube likely was pointing in the direction of the air flow, rather than into it. Consequently, the penetrometer sampling pump had to capture particles traveling at the speed of the air stream and change their direction as much as 180 degrees in order to collect and count them. The failure to capture and count DOP particles downstream of the HEPA filters results in non-conservative test results and could give a false indication the filters had successfully passed the acceptance criteria.

Engineering representatives stated this method had been established by vendor personnel before commercial operation and had been used by licensee personnel since that time. Further, the licensee believed it could confirm through testing the equipment configured this way provided representative test results; however it would not be able to until May 2008, after the Unit 2 refueling outage Therefore, this item will remain unresolved, pending the results of further testing by the licensee.

Analysis: Failure to ensure representative sampling of DOP particulates can result in the failure to correctly test HEPA filters. The failure to perform in-place testing of HEPA filters in the primary plant ventilation system is a performance deficiency. The finding is greater than minor because it would become a more significant safety concern if left uncorrected, in that the failure to identify degraded and non-conforming equipment conditions would impact the availability of the primary plant ventilation exhaust filter. The finding affected the containment barrier cornerstone. Using the Inspection Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, the finding is determined to have very low safety significance because the finding only represented a degradation of the radiological barrier function provided for the control room, auxiliary building, or spent fuel building.

Enforcement: Technical Specification 3.7.12.2 requires the Primary Plant Ventilation System to be tested in accordance with the Ventilation Filter Testing Program. Technical Specification 5.5.11 establishes the requirements of the Ventilation Filter Testing Program and Section a. requires in-place testing of the HEPA filters to demonstrate a penetration and system bypass of less than one percent for Primary Plant Ventilation System when tested in accordance with Regulatory Guide 1.52, Revision 2, and ANSI/ASME N510-1980, and a flow rate of 15,000 cubic feet per minute (+/- 10 percent). The licensee potentially violated this requirement when it did not implement methods to collect representative downstream DOP samples and measure the concentration correctly. This item will remain unresolved, pending the results of further testing by the licensee. Unresolved Item (URI) 05000445; 446/2008007-01; Failure to correctly test the primary plant ventilation system.

2PS2 Radioactive Material Processing and Transportation (71122.02)

a. Inspection Scope

This area was inspected to verify that the licensee's radioactive material processing and transportation program complies with the requirements of 10 CFR Parts 20, 61, and 71 and Department of Transportation regulations contained in 49 CFR Parts 171-180. The team interviewed licensee personnel and reviewed:

- The radioactive waste system description, recent radiological effluent release reports, and the scope of the licensee's audit program
- Liquid and solid radioactive waste processing systems configurations, the status and control of any radioactive waste process equipment that is not operational or is abandoned in place, changes made to the radioactive waste processing systems since the last inspection, and current processes for transferring radioactive waste resin and sludge discharges
- Radio-chemical sample analysis results for radioactive waste streams and use of scaling factors and calculations to account for difficult-to-measure radionuclides
- Shipment packaging, surveying, labeling, marking, placarding, vehicle checking, driver instructing, and disposal manifesting
- Shipping records for non-excepted package shipments
- Licensee event reports, special reports, audits, state agency reports, self-assessments and corrective action reports performed since the last inspection

The inspection team completed six of the required six samples.

b. Findings

Introduction. The team reviewed a Green self-revealing, noncited violation of 10 CFR 71.5, which occurred when the licensee failed to ship radioactive material correctly.

Description. On July 21, 2006, the licensee was notified about a problem with Shipment Number 2006-34. The radioactive shipment had been transported as an "excepted package-limited quantity." The notification came from the recipient, who identified that the contact dose rate on the external surface of the package exceeded the 0.5 millirem per hour limit allowed by regulation. The recipient measured a contact radiation level of 0.9 millirem per hour. The licensee's survey conducted before shipment indicated that the highest dose rate on the package was 0.3 millirem per hour. The package contained a resin sample for offsite analysis. The licensee's investigation into the issue could not conclusively determine the cause for the increased external radiation dose rate; but, concluded that the inconsistent survey measurements resulted from either the package contents being incorrectly blocked and braced, thus allowing the contents to shift, or from the package being incorrectly surveyed, initially. The licensee revised their procedure to correct for this problem by limiting the inner package dose rate to 0.3 millirem per hour thus reducing the risk for the external dose rate to be more than 0.5 millirem per hour.

Analysis. The failure to ship limited quantity radioactive material in accordance with federal regulations is a performance deficiency. The finding is greater than minor because it was associated with a Public Radiation Safety cornerstone attribute (transportation program) and it affected the associated cornerstone objective because the failure to correctly ship radioactive material decreases the licensee's assurance that the public will not receive unnecessary dose. However, this finding cannot be evaluated by the Public Radiation Safety Significance Determination Process because it does not involve radioactive shipments classified as Schedule 5 through 11, as described in NUREG-1660, "U.S. Specific Schedules of Requirements for Transport of Specified Types of Radioactive Material Consignments," and it does not fit traditional enforcement. Therefore, the finding was reviewed by NRC management using Inspection Manual Chapter 0609, Appendix M, and determined to be of very low safety significance because the package was not accessible by the public.

Additionally, this finding has a cross-cutting aspect in the area of human performance, work practices component, because the worker preparing the shipment did not use self checking as an error prevention technique to ensure that the package did not exceed the dose rate limit (H4.a).

Enforcement. Part 71.5 of Title 10 of the Code of Federal Regulations states, in part, that each licensee who transports licensed material on public highways shall comply with applicable requirements of the DOT regulations in 49 CFR parts 171 through 180. Part 173.421(a)(2) of Title 49 of the Code of Federal Regulations states that the radiation level at any point on the external surface of the package does not exceed 0.005 mSv/hour (0.5 mrem/hour) for excepted packages for limited quantities of Class 7 materials. Contrary to the above, the licensee failed to ensure the package

shipped as an excepted package did not exceed the dose rate limit for such packages. Because this violation was of very low safety significance and was entered into the licensee's corrective action program as Smart Form SMF-2006-2403, it is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy: NCV 05000445;446/2008007-02; Failure to ship radioactive material correctly.

2PS3 Radiological Environmental Monitoring Program And Radioactive Material Control Program (71122.03)

a. Inspection Scope

This area was inspected to ensure that the radiological environmental monitoring program verifies the impact of radioactive effluent releases to the environment and sufficiently validates the integrity of the radioactive gaseous and liquid effluent release program; and that the licensee's surveys and controls are adequate to prevent the inadvertent release of licensed materials into the public domain. The team used the requirements in 10 CFR Part 20, Appendix I of 10 CFR Part 50, the Offsite Dose Calculation Manual, and the licensee's procedures required by technical specifications as criteria for determining compliance. The team interviewed licensee personnel and reviewed

- Annual environmental monitoring reports and licensee event reports
- Selected air sampling and thermoluminescence dosimeter monitoring stations
- Collection and preparation of environmental samples
- Operability, calibration, and maintenance of meteorological instruments
- Each event documented in the Annual Environmental Monitoring Report which involved a missed sample, inoperable sampler, lost thermoluminescence dosimeter, or anomalous measurement
- Significant changes made by the licensee to the Offsite Dose Calculation Manual as the result of changes to the land census or sampler station modifications since the last inspection
- Calibration and maintenance records for air samplers, composite water samplers, and environmental sample radiation measurement instrumentation, quality control program, interlaboratory comparison program results, and vendor audits
- Locations where the licensee monitors potentially contaminated material leaving the radiological controlled area [or controlled access area] and the methods used for control, survey, and release from these areas
- Type of radiation monitoring instrumentation used to monitor items released, survey and release criteria of potentially contaminated material, radiation detection sensitivities, procedural guidance, and material release records

- Licensee event reports, special reports, audits, self-assessments and corrective action reports performed since the last inspection

The inspection team completed ten of the required ten samples.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution

Annual Sample Review

a. Inspection Scope

The team evaluated the effectiveness of the licensee's problem identification and resolution process with respect to the following inspection areas:

- Radiation Monitoring Instrumentation (Section 2OS3)
- Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems (Section 2PS1)
- Radioactive Material Processing and Transportation (Section 2PS2)
- Radiological Environmental Monitoring Program and Radioactive Material Control Program (Section 2PS3)

b. Findings and Observations

No findings of significance were identified.

4OA6 Management Meetings

Exit Meeting Summary

On February 28, 2007, the team presented the inspection results to Mr. R. Flores, Site Vice President, and other members of his staff who acknowledged the findings. The team confirmed that proprietary information was not provided or examined during the inspection.

4OA7 Licensee Identified Violations

The following finding(s) of very low safety significance were identified by the licensee and are violations of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600 for being dispositioned as Non-Cited Violations.

Technical Specification 5.4.1 states, in part, that written procedures shall be established, implemented, and maintained, which cover applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Section 7(e) of the regulatory guide requires procedures for radiation surveys which would limit personnel exposure and materials released into the environment. Procedure RPI-213, "Survey and Release of Material and Personnel," Section 4.2.1 states, in part, that "the criteria for unconditional release from an RCA is no detectable activity." However, the licensee identified two examples of a failure to control the release of radioactive material. In both examples, the items were found outside the protected area. On March 23, 2007, follow up surveys of items released to warehouse A (not a radiological controlled area (RCA)) were found to be contaminated. On May 2, 2007, the licensee identified radioactive material in the parking lot (not an RCA) near Warehouse C. These events were entered into the licensee's corrective action program as Smart Forms SMF-2007-1066 and SMF 2007-1517. The finding was determined to be of very low safety significance because: (1) it was a radioactive material control finding, (2) it was not a transportation finding, (3) it did not result in public dose greater than 0.005 rem.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

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S. Bradley, Health Physics Supervisor, Radiation Protection
A. Caves, Supervisor, Radiation Protection
R. Garcia, Supervisor, Radiation Protection
R. Kidwell, Senior Nuclear Specialist, Regulatory Affairs
R. Knapp, RP Supervisor, Rad Mat Control
W. Knowles, Supervisor, Surveillance and Control, Radiation Protection
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T. Parker, Engineered Safety Feature Air Cleaning Sytem Engineer, Systems Engineering
D. Rebstock, Supervisor, Chemistry
M. Syed, Meteorological Monitoring Instrumentation System Engineer, Systems Engineering
R. Walsh, Technician, Chemistry

NRC

D. Allen, Senior Resident Inspector
B. Tindell, Resident Inspector

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed During this Inspection

05000445; 446/2008007-01	URI	Failure to Correctly Test the Primary Plant Ventilation System (Section 2PS1)
05000445; 446/200807-02	NCV	Failure to ship radioactive material correctly (Section 2PS2)

Previous Items Closed

NONE

Previous Items Discussed

NONE

LIST OF DOCUMENTS REVIEWED

Section 2OS3: Radiation Monitoring Instrumentation and Protective Equipment (71121.03)

Audits and Self-Assessments

EVAL-2007-008	Nuclear Overview Department Report, Radiation Protection Audit
SA-2007-040	Self-Assessment Report, Self Assessment of REMP at CPSES

Corrective Action Documents (Smart Forms)

2006-0771, 2006-0918, 2006-1074, 2006-1456, 2006-2403, 2006-2409, 2006-3713, 2006-3926, 2006-4082, 2006-4137 ,2007-0073, 2007-0604, 2007-0664, 2007-0792, 2007-1257, 2007-1522, 2007-1650, 2007-2266, 2007-2780, 2007-3266, 2007-3295, 2008-0036, 2008-0039, 2008-0151, 2008-0424, 2008-0595, 2008-0601

Procedures

ALM-3200	Alarm Procedure DRMS, Revision 4
ICI-4930	Channel Calibration Low Range Area Monitor, Revision 3
ICI-4959	Channel Calibration High Range Area Monitor, Revision 2
INC-2047	DRMS Calibration Reference Activities, Revision 1
INC-7079	Calibration Containment High Range Radiation Monitor Channels, Revision 6
INC-7099X	GPRM COT & CCAL - Control Room Ventilation Intake Monitor, Revision 4
RPI-503	Operation of the Stand-Up Whole Body Counter, Revision 10
RPI-508	Calibration of the Stand-up Whole Body Counter, Revision 9
RPI-531	Operation of the Shepherd Panoramic Irradiator, Revision 5
RPI-534	Calibration: Electronic Personal Dosimeters & Pocket Ion Chambers, Revision 2
RPI-539	Use of Siemens Electronic Dosimeter, Revision 3
RPI-700	Sealed Leak Source Testing, Revision 9
RPI-801	Operation of Portable Survey Instruments, Revision 6
RPI-802	Performance of Source Checks, Revision 9
RPI-809	Operation of the Calibration Well Source, Revision 12
RPI-658	Radiation Protection Equipment Calibration Program, Revision 6
RPI-862	Calibration of Eberline PCM-1 Personnel Contamination Monitor, Revision 2
RPI-865	Calibration of Argos Personnel Contamination Monitor, Revision 12
RPI-881	Calibration of Portable Dose Rate Instruments, Revision 9
RPI-882	Calibration of Portable Count Rate Instruments, Revision 4
RPI-888	Calibration of Portable Air Sample Equipment, Revision 2
RPI-889	Calibration of the Eberline AMS-4, Revision 1
RPI-895	Calibration of NE Technology SAM - Small Article Monitor, Revisions 3
STA-658	Radiation Protection Equipment Calibration Program, Revision 8

Calibration Database and Records

Area Radiation Monitors (02/27/08)
Electronic Dosimeters: (02/26/08)
Eberline ASP-2 Count Rate Meters (02/26/08)
CPSES Instrument Calibration Database (02/28/08)

Quality Control and Calibration Packages

AccuScan Whole Body Counter Calibration Data Package 08-23-07
FastScan Whole Body Counter Calibration Data Package 08-06-07

Section 2PS1: Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

Audits and Self-Assessments

CPSES Nuclear Overview Department Evaluation Report EVAL-2005-017, Radwaste Effluent and Environmental

Procedures

RPI-707	Radioactive Effluent Reporting, Revision 7
RPI-706	Radioactive Effluent Tracking, Revision 7
STA-603	Control of Station Radioactive Effluents, Revision 19
COP-816	Plant Ventilation, Revision 4
CHM-104	Quality Assurance and Quality Control, Revision 20
CHM-170	Liquid and Gaseous Effluent Program, Revision 3
CLI-744	Radioactive Effluent Pre-Release Permit Processing, Revision 1
CLI-745	Radioactive Effluent Post-Release Permit Processing and Surveillance Tracking, Revision 1
ICI-4995X	Channel Calibration - Plant Ventilation Stack Gas, Revision 5
ICI-4998	Channel Calibration - Gas Process Monitor, Revision 4
INC-7081X	DCOT & CCAL - Liquid Effluent Waste Process Monitor, Revision 6
INC-7084	DCOT & CCAL - Turbine Building Floor Drains, Revision 8
INC-7090X	DCOT, ACOT, & CCAL Vent Stack WRGM, Revision 5

Effluent Release Permits

G2007-007, G2007-016, G2007-022, G2007-028, G2007-029, G2007-045, G2007-048
G2007-055, L2006-3, L2007-2, L2008-1

Corrective Action Documents

06-001123, 06-001456, 06-001499, 06-001571, 06-003204, 06-003209, 06-003225
06-003529, 06-003610, 07-000024, 07-000613, 07-000614, 07-001327, 07-002663
08-000150, 08-000622

2005-001990-00, 2005-003999-00, 2005-004524-00, 2005-000720-00, 2005-000823-00, 2005-003706-00

Effluent Monitor and Flow Meter Calibrations and Test Work Authorizations Numbers

3-00-300561-01: Unit -2 RE-0406 CVCS Reactor Coolant Letdown Radiation Monitor, 0114-04
3-02-321010-01: Unit -1 RE-0406 CVCS Reactor Coolant Letdown Radiation Monitor, 0112-04
3-05-308167-01: North Vent Stack Discharge Gas Radiation Detector 5567, 02-01-07
5-04-501371-AA: Unit-1 Containment Air Particulate Iodine Gas Monitor, 06-05-06
5-04-501544-AA: Unit-2 Containment Air Particulate Iodine Gas Monitor, 06-13-06
5-05-502068-AA: South Vent Stack Wide Range Gas Radiation Detector RE-5570A, 08-15-07
5-05-500407-AA: Unit-2 Containment Elevation 905 High Range Monitor RE-6290B, 10-09-06
5-05-500487-AA: Unit-1 Turbine Building Sump Radiation Detector RE-5100, 08-23-06
5-05-500759-AA: Unit-1 Containment Elevation 905 High Range Monitor RE-6290A, 03-19-07
5-05-500716-AA: Control Room Ventilation South Intake Detector RE-5895A, 08-14-06
5-05-501613-AA: Control Room Ventilation South Intake Detector RE-5896A, 08-28-06

Other Documents

TXU Engineering Calculation ME-CA-0000-5326
Offsite Dose Calculation Manual, Revision 27
2005 Results of Radiochemistry Cross Check Program
2006 Results of Radiochemistry Cross Check Program
CPNPP Open EMS V & V

Section 2PS2: Radioactive Material Processing and Transportation (71122.02)

Procedures

RPI-213, “Survey and Release of Material and Personnel,” Revision 12
RPI-115, “Alarm Response,” Revision 3
RPI-215, “Waste Stream Sampling,” Revision 6
RPI-230, “Radioactive Material Shipments,” Revision 3
RPI-231, “Radioactive Material/Waste Vehicle Inspection,” Revision 4
RPI-232, “Characterizing Radioactive Material for Shipment,” Revision 5
RPI-234, “Packaging Radioactive Material for Shipment,” Revision 11
RPI-235, “Marking and Labeling Radioactive Material/Waste Packages for Shipment,” Revision 6
RPI-237, “Placarding Radioactive Material/Waste Shipments,” Revision 5
RPI-238, “Radioactive Material/Waste Shipment Surveys,” Revision 9
RPI-239, “Radioactive Material Shipment Documentation,” Revision 10
RPI-240, “Radioactive Waste Shipments,” Revision 5

RPI-242, “Radioactive Waste Characterization and Classification,” Revision 6
RPI-243, “Packaging Radioactive Waste for Shipment,” Revision 5
RPI-247, “Radioactive Waste Shipment Documentation,” Revision 10
STA-652, “Radioactive Material Control,” Revision 14
STA-713, “Process Control Program (PCP),” Revision 1

Corrective Action Documents

2006-2265	2006-2365	2006-2403	2006-2640	2006-2747	2006-3405
2006-3994	2006-4168	2006-4169	2007-0332	2007-0690	2007-0801
2007-1044	2007-1065	2007-1066	2007-1194	2007-1299	2007-1440
2007-1492	2007-1517	2007-1589	2007-1647	2007-1850	2007-2049
2007-2059	2007-2199	2007-2965			

Shipment Records

2006-034
2007-022
2007-038
2007-091
2007-096
2008-001
2008-015

Waste Stream Classification Records

Z25329 (06-03) SFP/U2
Z24964 (06-01) Plant Clean Up
Z25331 (06-10) FDS V3

Training

MD31.C06.IR1	Function Specific Training (49CFR172 Subpart H)
RP21.RMC.RW2	DOT/NRC Radioactive Shipping

Section 2PS3: Radiological Environmental Monitoring Program and Radioactive Material Control Program

Procedures

CHM-708	ODCM Surveillances of Low Volume Waste Pond, Revision 6
COP-510	Waste Systems, Revision 4
ENV-323	Tritium Groundwater Monitoring Program, Revision 0
RPI-707	Radioactive Effluent Reporting, Revision 7
RPI-710	Radiological Environmental Monitoring, Sampling, and Analysis Program, Revision 11
RPI-713	Collection, Preparation, and Shipment of Radiological Environmental Samples, Revision 4

RPI-714 Land Use Census, Revision 2
RPI-888 Calibration of Portable Air Sample Equipment, Revision 2

Condition Reports (Smart Forms)

2006-0489, 2006-1275, 2006-1363, 2006-1456, 2006-1692, 2006-2731, 2006-3292, 2006-3894, 2006-3514, 2007-0282, 2007-0768, 2007-1185, 2007-1185, 2007-2927, 2008-0150, 2008-0326, 2008-0562, 2008-0612

Audits and Self Assessments

EVAL-2007-008 Radiation Protection Audit
SA-2007-044 Ground Water Monitoring
SA-2007-042 Radioactive Environmental Monitoring Program

Miscellaneous

Land Use Census dated July19, 2007
2006 Annual Radiological Environmental Operating Report
Tritium Groundwater Monitoring Data Sheets for 3rd quarter 2007, 4th quarter 2007, and 1st quarter 2008

Calibration Records

Low Volume Air Samplers; HP-21871B, TX-2214, and TX-2215 dated 12/05/07

Meteorological Instrumentation Calibration Work Orders

5-07-500117-AA Primary Tower Air Delta Temperature Channel 4119 (8/23/2007)
5-07-501440-AA Primary Tower Wind Direction Channel (60m) 4115 (8/09/2007)
5-07-501551-AA Backup Tower Wind Speed Channel (10m) 4128 (8/09/07)
5-07-502127-AA Primary Tower Wind Direction Channel (10m) 4116 (8/13/07)
5-07-502210-AA Primary Tower Wind Speed Channel (60m) 4117 (8-23-07)
5-07-502261-AA Backup Tower Wind Direction Channel (10m) 4126 (8-16-07)
5-07-502577-AA Primary Tower Wind Speed Channel (10m) 4118 (8-07-07)