UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
612 EAST LAMAR BLVD, SUITE 400
ARLINGTON, TEXAS 76011-4125

October 20, 2008

Rick A. Muench, President and
Chief Executive Officer
Wolf Creek Nuclear Operating Corporation
P.O. Box 411
Burlington, KS 66839

SUBJECT: WOLF CREEK GENERATING STATION - NRC RADIATION SAFETY TEAM INSPECTION REPORT 05000482/2008009

Dear Mr. Muench:

On September 12, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Wolf Creek Generating Station. The enclosed report documents the inspection findings which were discussed at the conclusion of the inspection with Mr. M. Sunseri, Vice President Operations and Plant Manager, 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 inspectors 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 report documents one self-revealing finding involving a violation of NRC requirements. This finding was of the very low safety significance (Green) and because this finding was entered into your corrective action program, the NRC is treating this finding as a noncited violation, consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest the violation or the significance of the noncited violation, 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, D.C. 20555-0001, with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 612 East Lamar Blvd., Suite 400, Arlington, Texas 76011-4125; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspectors at the Wolf Creek Generating Station facility.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, and its enclosure, will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records 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/

Gregory E. Werner, Chief
Plant Support Branch 2
Division of Reactor Safety

Docket: 50-482
License: NPF-42

Enclosure:
NRC Inspection Report 05000482/2008009
w/Attachment: Supplemental Information

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SUNSI Review Completed: __LC__ ADAMS: ■ Yes □ No Initials: _GEW_
■ Publicly Available □ Non-Publicly Available □ Sensitive ■ Non-Sensitive

R:_REACTORS_WC\2008\WC2008009RP Team-LC2.wpd ML

RIV:DRS/PSB	PSB	PSB	PSB	C:PSB2
LCCarsonII	DCGraves	LTRicketson	BDBaca	GEWerner
/RA/	**/RA/**	**/RA/**	**/RA/**	**/RA/**
10/17/08	10/17/08	10/17/08	10/17/08	10/17/08
C:DRP/B	C:PSB2			
VGGaddy	GEWerner			
/RA/	**/RA/**			
10/17/08	10/20/08			

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U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket:	50-482
License:	NPF-42
Report:	05000482/2008009
Licensee:	Wolf Creek Nuclear Operating Corporation
Facility:	Wolf Creek Generating Station
Location:	1500 Oxen Lane SE Burlington, Kansas
Dates:	September 8 - 12, 2008
Inspectors:	L. Carson II, Senior Health Physicist - Team Leader L. Ricketson, PE, Senior Health Physicist B. Baca, Health Physicist D. Graves, Health Physicist
Accompanied By:	R. Conatser, Health Physicist, Office of Nuclear Reactor Regulation
Approved By:	Gregory E. Werner, Chief Plant Support Branch 2 Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000482/200809; 09/08/2008 – 09/12/2008; Wolf Creek Generating Station; Radioactive Material Processing and Transportation

The report covered a one-week period of onsite inspections by a team of four region-based health physics inspectors. Based upon the results of the inspection, the team reviewed one finding, a self-revealing violation of very low safety significance (Green). The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process." Findings for which the significance determination process 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 December 2006.

A. NRC-Identified Findings and Self-Revealing Findings

- Green. The team reviewed a self-revealing, noncited violation of 10 CFR 20.2006(b) resulting from the licensee's failure to provide an accurate shipping manifest. On May 16, 2008, the licensee shipped used radioactive resin to a waste processor. The shipment contained 65 cubic feet of resin and a total activity of 177 Curies. However, the manifest papers accompanying the shipment only indicated 35 cubic feet of resin and a total activity of 83.8 Curies. The licensee was notified of the problem by the shipment recipient. The licensee's corrective actions were to fax a corrected shipment manifest to the processor, suspend resin shipments, and conduct an apparent cause investigation. The problem involving the incorrect manifest was documented in the corrective action program as Condition Report 2008-2357.

  The finding is greater than minor because it was associated with the Public Radiation Safety cornerstone attribute, transportation program, and affected the cornerstone objective in that it provided incorrect information as part of hazard communication which could increase public dose. Using the public radiation safety significance determination process, the team determined the finding had very low safety significance because (1) radiation limits were not exceeded; (2) there was no breach of a package during transit; (3) it did not involve a certificate of compliance issue; (4) it was not a low level burial ground nonconformance; and (5) it did not involve a failure to make notifications or provide emergency information. Additionally, this finding had a crosscutting aspect in the area of human performance, resources component, in that, the licensee did not establish adequate procedures and documentation necessary to ensure that information entered on the manifest was correct before shipping the package [H2(c)]. (Section 2PS2)

B. Licensee-Identified Violations

None

REPORT DETAILS

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

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 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 self-contained breathing apparatus air bottles to and from the control room and operations support center during emergency conditions, status of self-contained breathing apparatus staged and ready for use in the plant and associated surveillance records, and personnel qualification and training; and
- Qualification documentation for onsite personnel designated to perform maintenance on the vendor-designated vital components, and the vital component maintenance records for self-contained breathing apparatus 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, and licensee procedures required by the Technical Specifications as criteria for determining compliance.

The team conducted an 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 Safety Analysis Report;
- Changes to the Offsite Dose Calculation Manual 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; and
- 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 Offsite Dose Calculation Manual and effluent dose calculations including a selection of monthly, quarterly, and annual dose calculations;
- The land-use census;
- The implementation of the voluntary Nuclear Energy Institute/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; and
- 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; and
- 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

No findings of significance were identified.

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; and
- 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 self-revealing, Green noncited violation (NCV) of 10 CFR 20.2006(b) for failure to ship radioactive waste with an accurate manifest.

Description. On May 16, 2008, the licensee shipped radwaste resin to a waste processor. The shipment included a total activity of 177 Curies of resin (64.4 cubic feet). However, the waste manifest (NRC Forms 540 and 541) accompanying the shipment only indicated a total activity of 83.8 Curies of resin (35 cubic feet). Prior to officially accepting the shipment, the waste processor had reviewed the shipment manifest, determined that the amount of radwaste in the container was incorrect, and they notified the licensee. The licensee's immediate corrective actions were to fax a corrected copy of the shipment manifest to the processor on May 19, 2008, suspend resin shipments, and conduct an apparent cause investigation. The cause of this event stemmed from a data entry error that occurred when radwaste operations failed record that 30 cubic feet of spent resin was transferred into a secondary storage tank in August 2007. Radwaste operations used spreadsheet entries to track in-plant resin transfers between primary and secondary storage tanks. Procedures used by radwaste operations and radwaste health physics did not require independent verifications of the amount of resins transferred into shipping containers and maintained in radwaste storage tanks. Consequently, existing licensee procedures were inadequate for ensuring the accuracy of information entered on the manifest by radwaste shippers before shipping the package. This event was documented in the corrective action program as Condition Report 2008-2357, and the site plans to implement all corrective actions by the end of 2008.

Analysis. The failure to include the correct total volume and radioactivity on a waste manifest is a performance deficiency. The finding is greater than minor because it was associated with the Public Radiation Safety cornerstone attribute of Program and Process (transportation program), and affected the cornerstone objective, in that, it provided incorrect information as part of hazard communication which could increase public dose. The finding involved an occurrence in the licensee's radioactive material transportation program that is contrary to NRC regulations. Using the public radiation safety significance determination process, the team determined the finding had very low safety significance because (1) radiation limits were not exceeded; (2) there was no breach of a package during transit; (3) it did not involve a certificate of compliance issue; (4) it was not a low level burial ground nonconformance; and (5) it did not involve a failure to make notifications or provide emergency information. Additionally, this finding had a crosscutting aspect in the area of human performance, resources component, in that, the licensee did not establish adequate procedures and documentation necessary to ensure that information entered on the manifest was correct before shipping the package. [H2(c)].

Enforcement. Title 10 CFR 20.2006(b) requires, "any licensee shipping radioactive waste intended for ultimate disposal at a licensed land disposal facility document the information required on NRC's Uniform Low-Level Radioactive Waste Manifest and transfer this recorded manifest information to the intended consignee in accordance with Appendix G to 10 CFR Part 20." Appendix G, Section I. B, requires, in part, that: "The shipper of the radioactive waste shall provide the following information regarding the waste shipment on the uniform manifest: the total disposal volume and the total radionuclide activity in the shipment." Contrary to the above, on May 16, 2008, the

licensee failed to provide an accurate manifest with radioactive waste Shipment 06R26. Specifically, the manifest incorrectly listed the total disposal volume of resin as 35 cubic feet instead of 64.5 cubic feet, and the total amount of radioactivity in the resin shipment as 83.8 Curies instead of 177 Curies. This violation was entered into the licensee's corrective action program as Condition Report 2008-2357. This issue is being treated as a NCV, consistent with Section VI.A of the NRC Enforcement Policy:
NCV 05000482/2008009-01, "Failure to Provide an Accurate Shipping Manifest."

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; and

- 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 (71152)

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), and
- Radiological Environmental Monitoring Program and Radioactive Material Control Program (Section 2PS3)

b. Findings

No findings of significance were identified.

4OA5 Other Activities

.1 (Closed) Temporary Instruction (TI) 2515/173, "Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative"

a. Inspection Scope

An NRC assessment was performed of the licensee's implementation of the Nuclear Energy Institute Ground Water Protection Initiative, dated August 2007 (ML072610036). Inspectors interviewed personnel, performed walk-downs of selected areas, and reviewed the following items:

- The licensee has performed a site characterization of the geology and hydrology that provides an understanding of the predominant ground water gradients based upon current site conditions.

- The licensee has evaluated work practices that could lead to leaks and spills, and has performed an evaluation of systems, structures, and components that contain licensed radioactive material to determine potential leak or spill mechanisms.

- An onsite ground water monitoring program has been implemented to monitor for potential licensed radioactive leakage into groundwater.

- Ground water monitoring results are being reported in the annual effluent and/or environmental monitoring report (see http://www.nrc.gov/reactors/operating/ops-experience/tritium/plant-info.html).

- The licensee has prepared procedures for the decision making process for potential remediation of leaks and spills, including consideration of the long term decommissioning impacts.

- Records of leaks and spills are being recorded in the licensee's decommissioning files in accordance with 10 CFR 50.75(g).

- The licensee has identified the appropriate local and state officials and has conducted briefings on the licensee's ground water protection initiative.

- Protocols have been established for notification to the local and state officials, and to the NRC regarding detection of leaks and spills.

- The licensee has not performed an independent self assessment. The assessment is scheduled for the week of December 8, 2008, which is prior to the required completion due date of December 31, 2008.

- The licensee has not completed the Nuclear Energy Institute self assessment. This assessment is scheduled to be completed February 28, 2009.

b. Findings

No findings of significance were identified.

4OA6 Meetings

Exit Meeting Summary

On September 12, 2008, the team presented the onsite inspection results to Mr. M. Sunseri, Vice President Operations and Plant Manager, and other members of licensee management, who acknowledged the inspection findings. The team confirmed that no proprietary information was provided to the team.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

L. Aiken, Technician, Dosimetry, Chemistry/Radiation Protection
M. Brinkmeyer, Technician, Fire Protection
C. Garcia, Engineer, Radiation Monitors, System Engineering
D. Gibson, Technician, Dosimetry, Chemistry/Radiation Protection
R. Hammond, Supervisor, Regulatory Support
T. Jensen, Superintendent, Chemistry
T. Just, Chemistry Technician, Chemistry
W. Muilenburg, Licensing Engineer, Regulatory Affairs
T. Rice, Environmental Technician, Regulatory Support
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M. Skiles, Supervisor, Radiation Protection
M. Sunseri, Vice President Operations and Plant Manager
J. Suter, Supervisor, Fire Protection
I. Sutton, Technician, Dosimetry, Chemistry/Radiation Protection
K. Thrall, Supervisor, Dosimetry, Chemistry/Radiation Protection

NRC Personnel

C. Long, Senior Resident Inspector

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000482/2008009-01	NCV	Failure to Provide an Accurate Shipping Manifest (Section 2PS2)

Closed

None

Discussed

None

LIST OF DOCUMENTS REVIEWED

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

Condition Reports

2006-1815	2007-3927	2008-4474
2006-2042	2008-1490	2008-4484
2006-3550	2008-4449	2008-4491
2007-2017	2008-4471	
2007-3367	2008-4473	

Effluent Instrument Calibration Work Orders

05-272894-000	06-285850-000	07-294382-000
05-273743-000	06-287802-000	07-298462-000
05-274736-000	06-287923-000	07-299805-000
05-275837-000	06-289763-000	07-300069-000
06-280591-000	06-290898-000	08-302724-000
06-282752-000	07-291892-000	08-303158-000
06-284554-000	07-292650-000	08-303790-000

Effluent Instrument Condition Reports

2007-0359	2007-3488	2008-0621
2007-1832	2007-3647	2008-0784
2007-2407	2007-4152	

Procedures

AI 10-001	Fire Brigade Equipment Inventory, Maintenance, and Cleaning	Revision 7
AI 10-004	Air Fill Station Operation,	Revision 3
AI 14-009	Industrial Respiratory Protection Program	Revision 4
AP 25B-600	Respiratory Protection Program at Wolf Creek,	Revision 6
RPP 05-607	Respirator Fit Testing with the Portacount Plus 8020	Revision 5
RPP 01-405	HP Instrument Program,	Revision 16
RPP 03-406	HP Dosimetry Records	Revision 1
RPP 05-707	Operation of Whole Body Counters	Revision 6

RPP 05-825	J.L. Shepherd Multi-Source Calibration System Operation	Revision 2
RPP-06-101	Eberline RO-2 and RO-2A Calibration	Revision 4
RPP-06-105	Eberline RO-20 Calibration	Revision 3
RPP-06-113	MGP Telepole Calibration	Revision 1
RPP-06-120	Eberline RM-14 Calibration	Revision 5
RPP-06-121	Ludlum 177 Calibration	Revision 5
RPP-06-132	MGP AMP-100 and AMP-200 Area Monitor Probe Calibration	Revision 3
RPP-06-205	Eberline AMS-4 Calibration	Revision 4
RPP-06-305	Eberline PM-7 Calibration	Revision 7
RPP-06-315	Eberline PCM-1B Calibration,	Revision 8
RPP-06-317	Eberline PCM-2 Calibration	Revision 1
RPP-06-319	NE Technology Model SAM 11 Calibration	Revision 0
RPP-06-421	MGP DMC-100/2000S Electronic Dosimeter Calibration	Revision 7
RPP-06-707	Calibration of WBC Detectors Using Ortec Renaissance Software	Revision 2
RPP-06-805	MS-3 Mini Scaler Calibration	Revision 7
RPP-06-806	Eberline SAC-4 Calibration	Revision 9
RPP-06-815	Ludlum 2200 with Sodium Iodide Scintillation Detector Calibration	Revision 6
RPP-06-825	J.L. Shepherd Multi-Source Calibration System Calibration	Revision 4
STN SP-110A	Channel Calibration Radwaste Building Vent System Radiation Monitor GHRE-0010A	Revisions 3 and 5
STN SP-110B	Channel Calibration Radwaste Building Vent System Radiation Monitor GHRE-0010B	Revision 7 and 9
STN SP-118	Channel Calibration Liquid Radwaste Discharge Radiation Monitor HBRE-00018	Revision 7

STN SP-121A	Channel Calibration Unit Ventilation System Radiation Monitor GTRE21A	Revision 4
STN SP-133	Channel Calibration Containment Purge System Radiation Monitor GTRE-33	Revision 9 and 12
STN SP-152	Channel Calibration Steam Generator Blowdown Discharge Radiation Monitor BMRE-0052	Revision 7
STN SP-159	Channel Calibration Turbine Building Effluent Radiation Monitor LERE-0059	Revision 6
STN SP-195	Channel Calibration Hi/Lo TDS Discharge to Waste Water Treatment Radiation Monitor HFRE-0095	Revision 6
STS IC-474B	Channel Calibration Unit Ventilation System Radiation Monitor GTRE21B	Revision 12 and 14

Audits

Assessment Number: 83, "Radiological Controls - Health Physics Operations"
Quality Oversight Assessment Reports: #7 Supplement: "Radiological Protection Measurements – Calibration Program," # 44 Supplement: "Radiation Dose Control – Dosimetry Program"

Health Physics Calibration Records

SDRE0021, SDRE0026, SDRE0038, SDRE0039
WC No: 10066, 10207, 10208, 10242, 10250, 10251, 10252, 10253, 11005, 11006, 11020, 11061, 11073, 11075, 11279, 11302, 11322, 11376, 11377, 11378, 11379, 11398, 11399, 11700

Miscellaneous

Daily Instrument Source Check Sheets
2007-2008 Draeger regulator maintenance and calibration records
Compressed air and gas quality testing results
Monthly SCBA inspection records
Personnel SCBA training records

Section 2PS1: Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems (71122.01)

Condition Reports

2006-0398	2007-4574	2008-3393
2006-1717	2007-4633	2008-4500
2007-0038	2008-2001	

Audits

ASS03 Effluent and Environmental Monitoring Programs (9/18/2006)

Procedures

AI 02E-009	Instructions for Intrinsic Germanium Detector Energy Calibration	Revision 10A
AP 02E-001	Chemistry Calibration Program	Revision 29
AP 07B-001	Radioactive Releases	Revision 17
AP 07B-003	Offsite Dose Calculation Manual	Revision 6
CHS AX-G01	Sampling of the Unit Vent for Radioactive Gas, Tritium, and/or Exchange of Filters	Revision 2
CHS RW-G02	Sampling of the Radwaste Vent for Radioactive Gas, Tritium and/or Exchange of Filters,	Revision 2
STS PE-005	HEPA Filter In-Place Leak Test Safety Related Units	Revision 10A
STS PE-006	Charcoal Adsorber In-Place Leak Test Safety Related Units	Revision 11
STN-PE-006	EOF and TSC Filtration System Flow Rate Measurement	Revision 5

Release permits

Liquid
2008-034, 2008-042

Gaseous
2008-55, 2008-56, 2008-57, 2008-117

In-Place Filter Testing Surveillances

FGG02A HEPA Filter In-Place Leak Test, 05/30/07
FGK01A HEPA Filter In-Place Leak Test, 11/07/08

Miscellaneous

2006 and 2007 Annual Radiological Effluent Release Reports
Control Room Log (8/15/08 -1:50 pm - 8/20/08 - 9:54 pm)
Radioactive Gaseous Effluent Monitoring Instrumentation Declared Inoperable

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

Condition Reports

2006-2166	2007-2453	2008-4190	2008-4442
2006-2167	2007-3363	2008-4392	2008-4444
2006-2278	2007-3701	2008-4393	2008-4446
2006-2279	2007-3940	2008-4394	2008-4447
2006-3595	2007-4328	2008-4395	2008-4458
2006-3619	2008-1603	2008-4396	2008-4461
2007-0482	2008-1791	2008-4439	2008-4501
2007-1705	2008-2357	2008-4440	
2007-1871	2008-4033	2008-4441	

Procedures

RPP 07-101	Control of Radioactive Material Management Software and Data Bases	Revision 9
RPP 07-110	Solid Radwaste Packaging	Revision 6
RPP 07-112	Processing Cartridge Filters	Revision 3
RPP 07-120	Preparation and Shipment of Radioactive Waste,	Revision 22A
RPP 07-121	Preparation and Shipment of Radioactive Material	Revision 21A
RPP 07-130	Verification of Free Standing Water in High Integrity Containers,	Revision 2
RPP 07-131	Bead Resin/Activated Carbon Dewatering Procedure For CNSI 14-215 or Smaller Liners	Revision 3
SYS HB-146	Drumdryer Operation	Revision 4
AP 28A-100	Condition Reports	Revision 6
AP 31A-100	Solid Radwaste Process Control Program	Revision 6

Waste Shipment Packages

06-C29	06-R57	07-R07	07-R24	08-R19	08-R19

Section 2PS3: Radiological Environmental Monitoring Program and Radioactive Material Control Program (71122.03)

Procedures

AI 07B-00	Review of Radiological Environmental Laboratory Analysis Results	Revision 7
AI 07B-004	Requirements of the Radiological Environmental Monitoring Program,	Revision 10
AI 07B-006	Collection, Preparation and Shipment of Fish Samples	Revision 6
AI 07B-011	Collection, Preparation and Shipment of Water Samples	Revision 10
AI 07B-034	Radiological Environmental Monitoring Program Air Sampling,	Revision 3
AP 20A-003	QA Audit Requirements, Frequencies, and Scheduling,	Revision 16A
AP 07B-004	Offsite Dose Calculation Manual (Radiological Environmental Monitoring program),	Revision 14

Condition Reports

2007-2008	2008-1252	2008-3009	2008-4472
2007-2487	2008-1438	2008-3476	2008-4488
2007-2490	2008-2214	2008-3668	
2007-4506	2008-2829	2008-4149	

Audits and Self-Assessments

Environmental Management Plans 9/16/06

Miscellaneous

2006 Annual Radiological Environmental Operating Report
2007 Annual Radiological Environmental Operating Report
2006 Interlaboratory Comparison Program Results
2007 Interlaboratory Comparison Program Results
Environmental Management Plans 9/16/06

Air Sample Calibration Records

8123 8405 8406 8407 5969 5971 5972

PIM Entry

Cornerstone: Public Radiation Safety

L. Carson (4640)
PIM SELF NCV PS September, 2008 71122.02 Human Performance
Failure to provide an accurate shipping manifest

- Green. The team reviewed a self-revealing, noncited violation of 10 CFR 20.2006(b) resulting from the licensee's failure to provide an accurate shipping manifest. On May 16, 2008, the licensee shipped used radioactive resin to a waste processor. The shipment contained 65 cubic feet of resin and a total activity of 177 Curies. However, the manifest papers accompanying the shipment only indicated 35 cubic feet of resin and a total activity of 83.8 Curies. The licensee was notified of the problem by the shipment recipient. The licensee's corrective actions were to fax a corrected shipment manifest to the processor, suspend resin shipments, and conduct an apparent cause investigation. The problem involving the incorrect manifest was documented in the corrective action program as Condition Report 2008-2357.

  The finding is greater than minor because it was associated with the Public Radiation Safety cornerstone attribute, transportation program, and affected the cornerstone objective in that it provided incorrect information as part of hazard communication which could increase public dose. Using the public radiation safety significance determination process, the team determined the finding had very low safety significance because (1) radiation limits were not exceeded; (2) there was no breach of a package during transit; (3) it did not involve a certificate of compliance issue; (4) it was not a low level burial ground nonconformance; and (5) it did not involve a failure to make notifications or provide emergency information. Additionally, this finding had a crosscutting aspect in the area of human performance, resources component, in that, the licensee did not establish adequate procedures and documentation necessary to ensure that information entered on the manifest was correct before shipping the package [H2(c)]. (Section 2PS2)