



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-4005

October 11, 2007

W. R. Brian, Site Vice President  
Grand Gulf Nuclear Station  
Entergy Operations, Inc.  
P.O. Box 756  
Port Gibson, MS 39150

SUBJECT: GRAND GULF NUCLEAR STATION - NRC RADIATION SAFETY TEAM  
INSPECTION REPORT 05000416/2007007

Dear Mr. Brian:

On September 13, 2007, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Grand Gulf Nuclear Station. The enclosed report documents the inspection findings, which were discussed at the conclusion of the inspection with you 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 NRC-Identified violation of very low safety significance (Green). However, because the finding was of very low safety significance and it 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. If you contest the noncited violation in this report, 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 Grand Gulf Nuclear 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: 50-416  
Licenses: NPF-29

Enclosure:  
NRC Inspection Report 05000416/2007007  
w/attachment: Supplemental Information

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-3-

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**ROPreports**  
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SUNSI Review Completed: LCC ADAMS: ☒ Yes ☐ No Initials: LCC  
☒ Publicly Available ☐ Non-Publicly Available ☐ Sensitive ☒ Non-Sensitive

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C:PSB	C:DRP/PBC	C:PSB		
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10/5/07	10/9/07	10/11/07		

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**U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV**

Docket: 50-416  
License: NPF-29  
Report: 05000416/2007007  
Licensee: Entergy Operations, Inc.  
Facility: Grand Gulf Nuclear Station  
Location: Waterloo Road  
Port Gibson, Mississippi 39150  
Dates: September 10 - 13, 2007  
Inspectors: Louis C. Carson II, Senior Health Physicist, Plant Support Branch  
Larry Ricketson, P.E., Senior Health Physicist, Plant Support Branch  
Bernadette Baca, Health Physicist, Plant Support Branch  
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Donald Stearns, Health Physicist, Plant Support Branch  
  
Accompanied By Chris Graves, Health Physicist, Plant Support Branch  
  
Approved By: Michael P. Shannon, Chief  
Plant Support Branch  
Division of Reactor Safety

## SUMMARY OF FINDINGS

IR 05000416/2007007; 9/10/07 - 9/13/07; Grand Gulf Nuclear Station; Radioactive Material Processing and Transportation

The report covered a four-day period of inspection on site by a team of five region-based health physics inspectors with additional review of documentation conducted in the regional office. A finding of very low safety significance (Green) was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 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 July 2006.

### A. NRC-Identified and Self-Revealing Findings

#### Cornerstone: Public Radiation Safety

- Green. The team identified a noncited violation of 10 CFR 71.5 because the licensee failed to provide required training to hazardous material workers involved in the shipment of radioactive material. Specifically, the licensee did not provide function-specific training, pursuant to 49 CFR 172.704(a) of Department of Transportation shipping regulations, to maintenance personnel involved in the reassembly of shipping casks. Corrective actions are still being evaluated; however, the licensee plans to provide hazardous material training to these employees. The licensee documented this issue in the corrective action program as CR-GGN-2007-04572.

The finding is greater than minor because it is associated with the Public Radiation Safety Cornerstone attribute of program and process and affects the cornerstone objective. Inadequate training of hazardous material workers regarding the reassembly and loading of shipping casks has a potential impact on public dose and on the licensee's ability to safely package and transport radioactive material on public roadways. The violation involved an occurrence in the licensee's radioactive material transportation program that is contrary to NRC and Department of Transportation regulations. When processed through the Public Radiation Safety Significance Determination Process, the finding was determined to be of very low safety significance because it: (1) was associated with radioactive material control, (2) involved the licensee's program for radioactive material packaging and transportation, (3) did not cause radiation limits to be exceeded, (4) did not result in a breach of package during transit, (5) did not involve a certificate of compliance issue, (6) did not involve a non-compliance with low level burial ground, and (7) did not involve a failure to make notifications or to provide emergency information. In addition, this finding had cross-cutting aspects in the area of human performance in the component of resources because the licensee did not ensure the availability and adequacy of training for hazardous material workers involved in the shipment of radioactive material. (H.2.b) (Section 2PS2)

## 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
- Self-assessments, audits, and Licensee Event Reports
- 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 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 ensure that the gaseous and liquid effluent processing systems are maintained so that radiological releases are properly mitigated, monitored, and evaluated with respect to public exposure. The team used the requirements in 10 CFR Part 20, 10 CFR Part 50 Appendices A and I, 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:

- Radiological effluent release reports since the last inspection, changes to the Offsite Dose Calculation Manual, radiation monitor setpoint calculation methodology, anomalous sampling results, effluent radiological occurrence performance indicator incidents, program for identifying contaminated spills and leakage and the licensee's process for control and assessment, self-assessments, audits, and licensee event reports
- Gaseous and liquid release system component configurations
- Routine processing, sample collection, sample analysis, and release of radioactive liquid and gaseous effluent
- Abnormal releases
- The licensee's understanding of the location and construction of underground pipes and tanks and storage pools that contain radioactive contaminated liquids; the technical bases for onsite monitoring, the licensee's capabilities of detecting spills or leaks and identifying groundwater radiological contamination both on site and beyond the owner-controlled area
- Changes made by the licensee to the Offsite Dose Calculation Manual, the liquid or gaseous radioactive waste system design, procedures, or operation since the last inspection
- Monthly, quarterly, and annual dose calculations
- Surveillance test results involving air cleaning systems and stack or vent flow rates
- Instrument calibrations of discharge effluent radiation monitors and flow measurement devices, effluent monitoring system modifications, effluent radiation monitor alarm setpoint values, and counting room instrumentation calibration and quality control



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

The team completed 11 of the required 11 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
- 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

Either because the conditions did not exist or an event had not occurred, no opportunities were available to review the following item:

- Shipment packaging, surveying, labeling, marking, placarding, vehicle checking, driver instructing, and disposal manifesting

The team completed six of the required six samples.

b. Findings

Introduction. The team identified a noncited violation of 10 CFR 71.5 and 49 CFR 172.704(a) of Department of Transportation (DOT) regulations because the licensee failed to provide required function-specific training to hazardous material employees involved in the shipment of radioactive material. Specifically, the licensee did not provide function-specific training, pursuant to 49 CFR 172.704(a) shipping regulations to maintenance personnel who installed and torqued the lids of radwaste shipping casks during reassembly. The violation had very low safety significance.

Description. On September 13, 2007, the team determined that maintenance workers involved in the transportation of hazardous materials activities had not received function-specific training required by 49 CFR 172.704(a). This determination was made from reviewing training records for individuals involved in the preparation of radioactive material shipments, training materials, reviewing radwaste shipping procedures, and interviewing responsible licensee management who stated that no function-specific training was conducted. The licensee stated that maintenance mechanics are not considered to be hazardous material (HAZMAT) workers requiring function-specific training because these individuals were under direct supervision of a HAZMAT qualified individual. The licensee's position regarding function-specific training for torquing radwaste shipping cask lids was that mechanics nuclear safety training met the requirements. However, 49 CFR 172.702 requires that each HAZMAT employee receive training in accordance with 49 CFR 172.704(a). Part 171.8 of Title 49 of the Code of Federal Regulations defines a HAZMAT employee as a person who is employed by a hazmat employer and who in the course of employment directly affects hazardous materials transportation safety. Part 172.704(a) of Title 49 of the Code of Federal Regulations states that a HAZMAT employee must have function-specific training concerning requirements of Subchapter C which are specifically applicable to the mechanics' function. Part 172.704(c) of Title 49 of the Code of Federal Regulations states that supervision of untrained HAZMAT employees involved with shipping hazardous materials is only allowed for new employees or individuals who change job functions provided: (1) the employee is under the direct supervision of a properly trained and knowledgeable employee; and (2) the training is completed within 90 days after employment or change in job function. The mechanics utilized to install and torque bolts on radioactive material shipping cask lids for shipment on public roads were not new employees or individuals who had a change in job function; hence, the supervision conditions provided in 49 CFR 172.704(c) are not applicable. Torque specifications for a shipping cask are identified in vendor supplied procedures for meeting conditions in the shipping cask Certificate of Compliance.

Analysis. The inspection team concluded the following in accordance with 49 CFR 171.8 and 172.704(a): (1) The maintenance workers are considered HAZMAT workers because of the tasks they perform, (2) They are required to have function-specific training even though they were working under the supervision of other trained employees, and (3) Function-specific training was not provided to the employees to ensure proper performance of the reassembly of shipping casks.

The failure to provide required training is a performance deficiency. The finding is greater than minor because it is associated with the Public Radiation Safety Cornerstone attribute of program and process and affects the cornerstone objective. The finding involved the potential to impact the licensee's ability to safely package and transport radioactive material on public roadways. The violation involved an occurrence in the licensee's radioactive material transportation program that is contrary to NRC and Department of Transportation regulations. When processed through the Public Radiation Safety Significance Determination Process, the finding was determined to be of very low safety significance because it: (1) was associated with radioactive material control, (2) involved the licensee's program for radioactive material packaging and transportation, (3) did not cause radiation limits to be exceeded, (4) did not result in a breach of package during transit, (5) did not involve a certificate of compliance issue, (6) did not involve a non-compliance with low-level burial ground, and (7) did not involve a failure to make notifications or to provide emergency information. In addition, this finding had cross-cutting aspects in the area of human performance in the component of resources because the licensee did not ensure the availability and adequacy of training for hazardous material workers involved in the shipment of radioactive material. (H.2.b)

Enforcement. Part 71.5 of Title 10 of the Code of Federal Regulations states that each licensee who transports licensed material shall comply with the applicable DOT regulations in 49 CFR Parts 107 and 171-180. Part 171.8 of Title 49 of the Code of Federal Regulations defines a hazardous material employee as a person who is employed by a hazardous material employer and who in the course of employment directly affects hazardous materials transportation safety. Part 172.704(a) of Title 49 of the Code of Federal Regulations states that a hazardous material employee must have function-specific training. Function-specific training shall be provided concerning requirements of Subchapter C or 49 CFR that are specifically applicable to the functions the hazardous materials employee performs. Part 173.24 of Title 49 of the Code of Federal Regulations contains general requirements for use and maintenance of packages. Part 173.475 of Title 49 of the Code of Federal Regulations contains quality control requirements for filling and closing the packaging for shipment. In addition 49 CFR 173.413 refers to the requirements specified in 10 CFR Part 71 which states that the licensee shall comply with the terms and conditions of the package certificate. Contrary to the above, the licensee did not provide function-specific training of applicable sections of the shipping regulations to maintenance workers involved in the transportation of hazardous materials.

Corrective actions are still being evaluated; however, the licensee plans to provide the hazardous material workers the required training. The violation was entered into the licensee's Corrective Action Program as Condition Report 2007-04572. Because the failure to train hazardous material workers was determined to be of very low safety significance and was entered into the licensee's corrective action program, this violation is being treated as a noncited violation, consistent with Section VI.A of the NRC Enforcement Policy: NCV 05000416/2007007-01, Failure to provide function-specific training to hazardous material workers.

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

a. Inspection Scope

This area was inspected to ensure that the REMP 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 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 team completed 10 of the required 10 samples.

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES**

4OA2 Problem Identification and Resolution

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 September 13, 2007, the team presented the inspection results to Mr. Brian, Vice-President, Operations, and other members of the staff who acknowledged the findings. The team confirmed that proprietary information was not retained by the inspectors.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

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R. Benson, Supervisor, Radioactive Waste  
R. Brian, Vice President, Operations  
D. Bottemiller, Manager, Licensing  
M. Causey, Systems Engineer  
D. Coulter, Senior Licensing Specialist  
J. Hagood, Senior Health Physicist, Radiation Protection  
E. Harris, Manager Quality Assurance  
M. Hurley, Technical Specialist, Nuclear Instrument Testing  
D. Jackson, Count Room Specialist, Chemistry  
M. Kupa, General Manager, Plant Operations  
M. Larson, Senior Licensing Specialist  
J. Lassetter, Supervisor, Chemistry  
C. Mason Auditor, Quality Assurance  
R. Scarbrough, Superintendent, Chemistry  
R. Shaw, Health Physicist/Chemistry Specialist  
D. Schlapkohl, Senior Health Physicist  
P. Stokes, Senior RP/Chemistry Specialist  
F. Rosser, Supervisor, Radiation Protection  
J. Watts, Senior Specialist, Radiation Protection  
R. Wilson, Superintendent, Radiation Protection

#### NRC

A. Barrett, Senior Resident Inspector

### **LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

#### Opened

NONE

#### Opened and Closed During this Inspection

05000416/2007007-01	NCV	Failure to Provide Function-Specific Training to Hazardous Material Workers(Section 2PS2)
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#### Discussed

NONE

## LIST OF DOCUMENTS REVIEWED

### **Section 20S3: Radiation Monitoring Instrumentation and Protective Equipment (71121.03)**

#### Procedures

06-IC-SG17-R-1001 Liquid Radwaste Effluent Flow Calibration, Revision 100  
06-IC-1D17-A-0013 GE Radioactive Gaseous Effluent Monitor, Revision 105  
06-IC-1D21-R-1002 Containment/Drywell High Range Area Radiation Monitor, Revision 105  
06-IC-SD17-A-1024 Liquid Radwaste Effluents Radiation Monitor Calibration, Revision 102  
08-S-07-83 Operation and Calibration of the ND-9000 Whole Body Counter, Revision 8  
08-S-10-02 Calibration of Portable Area Radiation Monitors, Revision 3  
08-S-10-04 Calibration of Portable Dose Rate Instrument, Revision 4  
EN-RP-301, Radiation Protection Instrument Control, Revision 0  
EN-RP-303, Source Checking of Radiation Protection Instrumentation, Revision 8  
EN-RP-306, Operation and Calibration of the Eberline PM-7, Revision 0  
EN-RP-307, Operation and Calibration of the Personal Contamination Monitors,  
Revision 0  
EN-RP-308, Operation and Calibration of the Gamma Scintillation Tool Monitors,  
Revision 0  
EN-RP-501, Respiratory Protection Program, Revision 0  
EN-RP-502, Inspection & Maintenance of Respiratory Protection Equipment, Revision 0  
EN-RP-503, Selection, Issue, and Use of Respiratory Protection Equipment, Revision 0  
EN-RP-504, Breathing Air, Revision 0

#### Condition Reports

CR-GGN-

2005-03479, 2005-04086, 2005-04193, 2005-04460, 2005-04682, 2006-00017, 2006-00793  
2006-01189, 2006-01585, 2006-01663, 2006-02546, 2006-02648, 2006-02583, 2006-03018  
2006-03316, 2006-03816, 2006-03851, 2006-03856, 2006-03858, 2006-04833, 2006-04872  
2007-00496, 2007-00920, 2007-01657, 2007-01973, 2007-02249 2007-02786

#### Audit and Assessments

Quality Assurance Audit Report QA-14-2007-GGNS-1  
GGNS Radiation Protection Corporate Assessment 8/15/06

#### Calibration Records

06IC1D17-A-0013-02, Containment Ventilation Radiation Monitor Calibration 10/17/06  
06CH1D17-A-0025-04, Turbine Building Ventilation Monitor Calibration 6/6/07  
06ICSD17-A-1024-01, Liquid Radwaste Effluents Radiation Monitor Calibration 10/16/06  
06CH1D17-A-0025-02, Fuel Handling Area Ventilation Radiation Monitor Calibration 7/24/07  
06-CH1D17-A-0025-01, Radwaste Building Ventilation Gaseous Monitor Calibration 5/16/07  
EN-RP-307, attachment 9.6, Personal Contamination Monitor-2 Calibration Data Sheet 7/25/07  
EN-RP-307, attachment 9.6, Personal Contamination Monitor-2 Calibration Data Sheet 6/13/06  
EN-RP-308, attachment 9.5, STM Calibration Tag #11714 6/26/07  
EN-RP-308, attachment 9.5, STM Calibration Tag #11714 5/25/06  
EN-RP-306, attachment 9.2, PM-7 Calibration ID#11356/2 2/6/07  
EN-RP-306, attachment 9.2, PM-7 Calibration ID#11356/2 6/14/06  
RSO-50 Dose Rate Meter I.D. No HP-DR-254 9/11/07

## **Section 2PS1: Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems (71122.02)**

### Procedures

06-CH-1D17-W-0017 Gaseous Release Points Iodines, Tritium and Particulates, Revision 105  
06-CH-SG17-P-0041 Radwaste Release Pre-Release Analysis, Revision 105  
06-CH-1T48-M-0037 Standby Gas Treatment Exhaust Gaseous Isotopic, Revision 106  
08-S-03-20 Interlaboratory Monitoring Program, Revision 12  
08-S-03-23 Chemistry Quality Control Program, Revision 7  
08-S-03-120 Germanium System Calibration Summary, Revision 10  
EN-CY-102 Laboratory Analytical Quality Control, Revision 2  
EN-RP-113 Response to Contaminated Spill/Leaks, Revision 0

### Work Orders, Calibration Records and Surveillance Test Results

06ME-1T48-R-0005 In-Place Testing of Standby-Gas Treatment Filtration System, Revision 105, December 1, 2005  
06ME-1T48-R-0005 In-Place Testing of Standby-Gas Treatment Filtration System, Revision 105, April 27, 2006  
06ME1000-R-0007-02 Train A Charcoal Cannister Test, May 23, 2006  
06ME1000-R-0007-02 Train B Charcoal Cannister Test, July 12, 2007

### Corrective Action Documents (Condition Reports)

CR-GGN-  
2005-03479, 2005-05036, 2005-04857, 2006-01275, 2006-01189, 2006-02513, 2006-02546  
2006-03018, 2006-04536, 2006-04835, 2007-01973, 2007-03392, 2007-03494, 2007-03706,  
2007-04352

### Audits and Self-Assessments

QA-6-2005-GGNS-1 Quality Assurance Audit Report - Effluent and Environmental Monitoring  
SA06-014 NUPIC Joint Report of AREVA NP, Inc Environmental Laboratories  
Release Packages

### Liquid

2006022 (4/08/06) FDST-A  
2006027 (4/11/06) EDST-A  
2006091 (6/17/06) FDST-A  
2006092 (6/18/06) FDST-A  
2007144 (9/12/07) EDST-A

### Gaseous

2007083



#### Surveys

GG-0706-0022  
GG-0706-0192  
GG-0707-0287  
GG-0708-0037

#### Drawings

E-1177-012	Schematic Diagram - D17 Radiation Monitoring System
J-0252 Sheet 82	Logic Diagram G17 Outlet Valve to Cooling Tower Blowdown
M-0039M	Piping & Instruments Diagram - Liquid Radwaste System Units 1&2
M-0039T	Piping & Instruments Diagram - Liquid Radwaste System Unit 1
M-1400	Yard Piping - Condensate Stg. Tank & Refueling Water Stg. Tank Area
M-1414	Yard Piping - Section & Details

#### Miscellaneous

Countroom - Notebook 6/01/05 - 11/30/06; 1/01/07 - 6/19/07  
2006 Second Quarter Radiochemistry Interlaboratory Results  
2005 and 2006 Annual Radioactive Effluent Release Reports  
Grand Gulf Offsite Dose Calculation Manual, Revision 31

### **Section 2PS2: Radioactive Material Processing and Transportation (71122.03)**

#### Procedures

08-S-06-50, "Radwaste Instruction Loading Radioactive Material," Revision 8  
08-S-06-71, "Sampling Procedures for Waste Classification," Revision 7  
EN-RW-101, "Radioactive Waste Management," Revision 1  
EN-RW-102, "Radioactive Shipping Procedure," Revision 4  
EN-RW-103, "Radioactive Waste Tracking Procedure," Revision 1  
EN-RW-104, "Scaling Factors," Revision 3  
EN-RW-105, "Process Control Program Description," Revision 0  
EN-RW-106, "Integrated Transportation Security Plan," Revision 0

#### Corrective Action Documents

CR-GGN-					
2005-02986	2005-04089	2005-04173	2005-04489	2005-04887	2005-04789
2005-04953	2006-00069	2006-00606	2006-01308	2006-02892	2006-03893
2007-00121	2007-00473	2007-02120	2007-04160	2007-04474	
CR-ECH-					
2006-00368	2006-04180	2007-00089	2007-00097	2007-00210	

#### Audits and Self Assessments

Quality Assurance Audit Report QA-15-2005-ENS-1, Radwaste, 11/18/2005  
Grand Gulf Nuclear Station Radiological Protection Corporate Assessment, 8/15/2006  
2007 RP / Radwaste Shipping (Pre-NRC) Assessment GLO 2007-0121, 6/7/2007

#### Shipment Records

2005-0905, 2006-0303, 2006-0307, 2006-0802. 2007-0414, 2007-0705

#### Waste Stream Classification Records

11/10/03: BR-D-N SRT  
04/21/04: PR-D-NA RWCU-A  
06/08/04: DAW-U-NA  
12/14/04: PR-D-NR RWCU-B/CPS  
05/23/06: BR-D-NA SRT  
05/23/06: DAW-U-NA  
05/28/06: PR-D-NA RWCU-A  
05/28/06: PR-D-NA RWCU-B/CPS  
01/16/07: PR-D-NA RWCU-B/CPS

#### Training

GLP-RPCT-RWHDL.05, Radiation Protection Radwaste Handling, 09/27/04  
GLP-RPCT-RWHDL.08, Radiation Protection Radwaste Handling, 07/27/06  
DOT Packaging Requirements, 03/28/06  
Radwaste Packaging, Transportation and Disposal, 07/12/04

#### **Section 2PS3 Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program (71122.03)**

##### Procedures

01-S-08-002	Exposure and Contamination Control, Revision 117
01-S-08-006	Radioactive Source Control, Revision 110
06-EN-S000-A-003	Interlaboratory Comparison Program, Revision 101
06-EN-S000-O-002	Land Use Census, Revision 101
06-EN-S000-V-001	Radiological Environmental Sampling, Revision 107
08-S-04-964	Meteorological Data Processing, Revision 1
08-S-08-005	Environmental Reporting, Revision 107
08-S-09-007	Control and Shipment of Radiological Environmental Samples, Revision 3
08-S-09-008	Liquids, Solids, Soil and Sludge Sample Collection, Revision 102
08-S-09-009	Review of Radiological Environmental Analytical Results, Revision 3
08-S-10-002	Calibration of Portable Air Samplers, Revision 3
EN-CY-108	Monitoring of Non-radioactive Systems, Revision 0
EN-CY-109	Sampling and Analysis of Groundwater Monitoring Wells, Revision 0
EN-RP-113	Response to Contaminated Spills/Leaks, Revision 0
EN-RP-121	Radioactive Material Control, Revision 0
EN-RP-143	Source Control, Revision 1
EN-RP-401	Decontamination Program, Revision 0

##### Corrective Action Documents (Condition Reports)

CR-ECH-  
2006-0063, 2007-0251, 2007-0485  
CR-GGN-  
2005-3407, 2005-4173, 2005-4420, 2005-4489, 2005-4887, 2005-4889, 2005-4953,  
2005-5162, 2006-2827, 2006-3139, 2007-1054, 2007-1148, 2007-2120

Audits, Self Assessments, and Surveillances

Chemistry Self Assessment LO-GLO-2007-000126

NUPIC Audit SA06-014 (AREVA NP, Incorporated Environmental Laboratories)

Quality Assurance Audit Report QA-6-2005-GGNS-1

Quality Assurance Surveillance Report QS-2006-GGNS-001

Radiation Protection Self Assessment LO-GLO-2006-00083

Miscellaneous

Groundwater Protection and Monitoring, Entergy Nuclear Fleet Project Plan, Revision 1

Grand Gulf Nuclear Station 2005 and 2006 Radiological Environmental Operating Report

Offsite Dose Calculation Manual, Revisions 34 and 35

2005 and 2006 River Bend Interlaboratory Comparison results

2006 Annual Land Use Census (Work Order Number 51024334-01)

Air Sample Collection Data Sheet (Work Order Number 51204555)

Calibration Records for Air Samplers: CHEM002, CHEM003, and CHEM006

License Based Document Change Number 2005-074

Offsite Dose Calculation Manual, Revisions 33, 34, and 35

Outfall 007 Storm Drain Tritium Evaluation (GIN 2005/00562)

2005 and 2006 GGNS Annual Radiological Environmental Operating Reports