

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-285/87-34

Operating License: DPR-40

Docket: 50-285

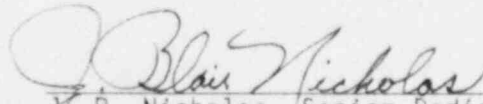
Licensee: Omaha Public Power District (OPPD)
1623 Harney Street
Omaha, Nebraska 68102

Facility Name: Fort Calhoun Station (FCS)

Inspection At: FCS Site, Blair, Nebraska

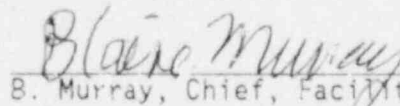
Inspection Conducted: December 7-11, 1987

Inspector:


J. B. Nicholas, Senior Radiation Specialist
Facilities Radiological Protection Section

1/29/88
Date

Approved:


B. Murray, Chief, Facilities Radiological
Protection Section

1/29/88
Date

Inspection Summary

Inspection Conducted December 7-11, 1987 (Report 50-285/87-34)

Areas Inspected: Routine, unannounced inspection of the licensee's liquid and gaseous radioactive waste management programs.

Results: Within the areas inspected, no violations or deviations were identified. One new open item is listed in paragraph 3.

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DETAILS

1. Persons Contacted

OPPD

- *R. L. Andrews, Division Manager, Nuclear Production
- *W. G. Gates, Manager, FCS
- *K. L. Belek, Supervisor, Environmental Sciences
- A. D. Bilau, Plant Health Physicist
- *M. A. Breuer, Radwaste Coordinator
- *C. J. Brunnert, Supervisor, Operations Quality Assurance (QA)
- *J. J. Fisicaro, Supervisor, Nuclear Regulatory and Industry Affairs
- *J. K. Gasper, Manager, Administrative and Training Services
- *J. M. Glantz, Senior Chemistry Technician
- *L. L. Gundrum, Senior Nuclear Production Division Engineer
- K. R. Henry, Supervisor, Corporate QA
- *D. A. Jacobson, Supervisor, Chemistry and Radiation Protection Training
- *C. W. Norris, Supervisor, Radiological Services
- *A. W. Richard, Manager, Corporate QA
- *G. L. Roach, Supervisor, Chemical and Radiation Protection
- B. A. Schmidt, Chemist
- *F. K. Smith, Plant Chemist
- *M. A. Wilson, Analyst, Environmental Services

Others

- *P. H. Harrell, NRC Senior Resident Inspector, FCS

*Denotes those present at the exit interview on December 11, 1987.

2. Inspector Observations

The following are observations the NRC inspector discussed with the licensee during the exit interview on December 11, 1987. These observations are not violations, deviations, unresolved items, or open items. These observations were identified for licensee consideration for program improvement, but the observations have no specific regulatory requirements. The following observations are identified in paragraphs 5 and 6 of this report. The licensee stated that these observations would be evaluated.

- a. Performance Evaluation Checklists (PEC) - The licensee had not provided specific PECs for preparing waste effluent release permits (see paragraph 5).

- b. Monitor Tank Release Checklists - The licensee was no longer documenting liquid effluent release valve lineups by completing and signing a checklist prior to each monitor tank release (see paragraph 6).

3. Open Item Identified During This Inspection

An open item is a matter that requires further review and evaluation by the licensee and the NRC inspector. Open items are used to document, track, and ensure adequate followup on matters of concern to the NRC inspector. An open item is identified in paragraph 8 of this report.

Open Item (285/8734-01): Semiannual Effluent Release Reports - This item involves the lack of attention to detail in preparing the reports and presenting the technical data in a format which provides a direct correlation to Technical Specification (TS) requirements (see paragraph 8).

4. Organization and Management Controls (83522/83722)

The NRC inspector reviewed the licensee's organization, staffing, identification and correction of program weaknesses, audits and appraisals, communication to employees, and documentation and implementation of the chemistry/radiochemistry section (C/RS) to determine adherence to commitments in Chapter 12 of the Updated Safety Analysis Report (USAR) and the requirements in Section 5.2 of the TS.

The NRC inspector verified that the organizational structure of the C/RS was as defined in the USAR and TS. The NRC inspector reviewed the licensee's standing orders, procedures, and position descriptions for the FCS assignment of responsibilities for the management and implementation of the FCS radioactive waste effluent program (RWEF). The NRC inspector verified that the administrative control responsibilities specified by the FCS standing orders and procedures were being implemented. Selected documents listed in Attachment 1 to this report were reviewed.

The NRC inspector reviewed the staffing of the C/RS and noted that the C/RS was fully staffed in the area of radioactive waste effluent control. The licensee's C/RS staff which manages the RWEF has replaced four technicians since the previous NRC inspection of this area in September 1986. The NRC inspector noted that C/RS personnel turnover had been approximately 50 percent in the past 15 months. The FCS C/RS organizational structure and staffing were determined to be in accordance with licensee commitments.

No violations or deviations were identified.

5. Training and Qualifications (83523/83723)

The NRC inspector reviewed the licensee's training and qualification program for C/RS personnel including education and experience, adequacy

and quality of training, employee knowledge, qualification requirements, new employees, Institute of Nuclear Power Operations (INPO) accreditation, and audits and appraisals to determine adherence to commitments in Chapter 12 of the USAR and the requirements in Sections 5.3 and 5.4 of the TS.

The NRC inspector reviewed the education and experience backgrounds of the present C/RS staff responsible for the RWEF and verified they met the required qualifications specified in the USAR and TS. A review of shift staffing indicated that all shifts had a lead chemist meeting the qualification requirements of ANSI N18.1-1971. It was determined that the licensee had an adequately qualified staff to meet shift staffing requirements.

The NRC inspector reviewed the licensee's training program for C/RS personnel including the "Training Program Master Plan for Chemistry" and selected Performance Evaluation Checklists (PEC) for chemistry/radiochemistry tasks. It was noted that the licensee had not provided a specific PEC for preparing radioactive waste effluent release permits. However, the training on preparation of radioactive waste effluent release permits appeared to be included in the objectives to the recordkeeping task 19-59-01 and specifically in completing the following tasks: 608.004, "Prepare Waste Lagoon Release Permit" (Form FC-209); 608.005, "Prepare Waste Liquid Release Permit" (Form FC-211); 608.006, "Prepare Containment Purge Release Permit" (Form FC-212); and 608.007, "Prepare Waste Gas Release Permit" (Form FC-213). This observation of not having a specific PEC for preparing radioactive waste effluent release permits was discussed with the licensee's representatives during the exit interview on December 11, 1987, and the licensee agreed to evaluate the necessity for such PECs and take appropriate corrective action to further document C/RS technician training.

The NRC inspector reviewed individual C/RS staff training records and qualification cards for the C/RS personnel responsible for performing RWEF activities. The NRC inspector verified that all shift qualified C/RS technicians had completed the required training on the radiological effluent technical specifications (RETS) and Offsite Dose Calculation Manual (ODCM) to perform liquid and gaseous effluent releases.

No violations or deviations were identified.

6. Liquids and Liquid Wastes (84523/84723)

The NRC inspector reviewed the licensee's liquid radioactive waste effluent program including: liquid waste system construction and installation; liquid leakage, overflow, and spillage; liquid sampling; liquid process and effluent monitors; procedures for liquid waste and effluent systems; reactor coolant and secondary water quality; and audits and appraisals to determine adherence to commitments in Chapters 4, 9, 11, and 12 of the USAR and the requirements in Sections 2.1, 2.9, 2.20, 3.12, 5.5, and 5.8 of the TS.

The NRC inspector reviewed the licensee's implementation of the RETS and ODCM to ensure agreement with analysis sensitivities, reporting limits, analytical results, sampling requirements, surveillance tests, RWEP operating procedures, offsite dose results from liquid effluents, and functional checks and calibrations of equipment associated with the radioactive liquid waste processing system. Selected documents and records listed in Attachment 1 to this report were reviewed.

The NRC inspector reviewed current approved revisions of FCS standing orders and procedures governing the release of liquid radioactive waste. These liquid effluent release procedures provide for the following: sampling of radioactive waste; chemical and radionuclide analyses prior to release; calculation of effluent release rates and projected offsite radionuclide concentrations and offsite doses prior to release; verification of effluent radiation monitor setpoints and testing of effluent isolation valves prior to release; recording effluent dilution parameters during releases; and verifying discharge flow rates and effluent volume discharged. Selected documents listed in Attachment 1 to this report were reviewed.

The NRC inspector reviewed a representative number of liquid release permits for the period September 1986 through November 1987. It was determined that processing, sampling and analysis, and approval and performance of the releases were conducted in accordance with FCS procedures. Quantities of radioactive nuclides released in the liquid effluents were within the limits specified in the RETS. Offsite doses had been calculated according to the ODCM and were within the TS limits. During the review of the liquid release permits, the NRC inspector observed that the auxiliary building operator's valve lineup checklist for radioactive waste liquid discharges was no longer attached to the completed release permits, since July 1987. Further review indicated that a procedure change, No. 18776, to OI-WDL-1, "Collection and Transfer of Liquid Waste," had been issued on July 17, 1987, which deleted the requirement to complete and sign valve checklist WDL-1-CL-K-1 prior to the release of monitor tank WD-22A and checklist WDL-1-CL-K-2 prior to the release of monitor tank WD-22B and attach the appropriate completed checklist to the waste liquid release permit as documentation of proper valve lineup. It was also noted that, even though the requirement to complete the appropriate above mentioned checklists had been removed and replaced with such statements as to ensure specific valves be closed and open prior to release of the respective monitor tanks, the checklists had not been deleted from the procedure.

The NRC inspector discussed this observation and procedure change with the licensee's representatives during the exit interview on December 11, 1987, expressing the concern that the deletion of the procedural requirement to complete and sign a valve lineup checklist prior to release of radioactive liquid waste effluent may be a reduction of safety precautions involving release of radioactive material to the environment. The licensee agreed to evaluate the necessity for the use of a completed and signed valve lineup checklist prior to the release of each monitor tank rather than the

operator's visual verification of the appropriate valve lineup as directed by the current Revision 31 of Procedure OI-WDL-1 and take appropriate corrective action to ensure that the proper valve lineup is performed prior to release of each monitor tank.

The NRC inspector determined that no design changes had been made to the liquid waste management systems since the previous NRC inspection conducted in September 1986.

The NRC inspector reviewed functional checks, calibrations, and alert/alarm setpoint procedures and records for radioactive waste liquid effluent monitors which showed that the frequency of functional channel checks and calibrations met TS requirements. The NRC inspector noted that the secondary calibration for many of the process radiation monitors had failed and maintenance had to be performed, followed by new primary calibrations which were performed using radioactive standards in the same media and configuration as the actual samples being measured in the effluent streams. The calibrations and monitor setpoint determinations were verified to have been performed according to approved procedures and documented in the Technical Data Book in the control room. The NRC inspector verified that the process effluent monitor alert/alarm setpoints on selected monitors were as specified in the Technical Data Book.

The NRC inspector reviewed procedures and selected reactor coolant and secondary water chemistry analyses records for the period September 1986 through November 1987. The records reviewed indicated that all required sampling and analyses were performed at the frequencies required by the TS and the analyses results met TS requirements. Selected documents and records listed in Attachment 1 to this report were reviewed.

The NRC inspector reviewed selected QA audit and surveillance procedures, audit and surveillance schedules for 1987 and 1988, and the qualifications of auditors. Surveillance and audit reports of QA activities performed during 1986 and 1987 in areas of radioactive waste effluent releases were reviewed for scope to ensure thoroughness of program evaluation and timely followup of identified deficiencies. The NRC inspector determined that the QA surveillances had been performed in accordance with the semiannual frequency and had not identified any significant problems. The NRC inspector reviewed the Safety Audit and Review Committee audit performed November 24 through December 5, 1986, and found the audit plan and checklist adequate. The procedures, surveillances, and audits which were reviewed are listed in Attachment 1 to this report.

No violations or deviations were identified.

7. Gaseous Waste System (84524/84724)

The NRC inspector reviewed the licensee's gaseous radioactive waste effluent program including gaseous waste system construction and installation, gaseous sampling, gaseous process and effluent monitors, procedures for gaseous waste and effluent systems, air cleaning systems,

and audits and appraisals to determine adherence to commitments in Chapters 6, 9, and 11 of the USAR and the requirements in Sections 2.9, 3.2, 3.6, 3.12, 5.5, and 5.8 of the TS.

The NRC inspector reviewed the licensee's implementation of the RETS and ODCM to ensure agreement with analysis sensitivities, reporting limits, analytical results, sampling requirements, surveillance tests, RWEP operating procedures, offsite dose results from gaseous effluents, and functional checks and calibrations of equipment associated with the radioactive gaseous waste processing system. Selected documents and records listed in Attachment 1 to this report were reviewed.

The NRC inspector reviewed current approved revisions of FCS standing orders and procedures governing the release of gaseous radioactive waste. These gaseous effluent release procedures provide for: the sampling of gaseous radioactive waste; radionuclide analysis prior to release; calculation of effluent release rate, projected offsite radionuclide concentrations, and offsite doses prior to release; verification of gaseous effluent radiation monitor setpoints and testing of effluent isolation valves prior to release; recording of meteorological conditions during releases; and verifying discharge flow rates and effluent volume discharged. Selected documents and records listed in Attachment 1 to this report were reviewed.

The NRC inspector reviewed selected gaseous waste release permits which included plant stack continuous releases and batch releases from waste gas decay tanks and containment for the period September 1986 through November 1987. It was determined that gaseous waste releases were performed according to procedure and the quantities of gaseous radionuclides released were within the limits specified in the RETS. Offsite doses had been calculated according to the ODCM and were within the TS limits.

The NRC inspector determined that no design changes had been made to the gaseous waste management system since the previous NRC inspection conducted in September 1986.

The NRC inspector reviewed functional checks, channel checks, calibrations, and alert/alarm setpoint procedures and records for gaseous radioactive waste effluent monitors and verified that the frequency of the various checks and calibrations met TS requirements. The monitor calibrations and setpoint determinations were verified to have been performed according to approved procedures and documented in the control room Technical Data Book. The NRC inspector verified that the ventilation stack gaseous effluent monitor alert/alarm setpoints were as specified by the completed calibration procedure and the Technical Data Book.

The NRC inspector reviewed the licensee's procedures, surveillance tests, and selected records and test results for maintenance and testing of air cleaning systems which contain high efficiency particulate air (HEPA) filters and activated charcoal adsorbers. The NRC inspector verified that

the licensee's procedures and surveillance tests provided for the required periodic functional checking of ventilation system components, evaluation of HEPA and activated charcoal adsorbers, tracking of system operating hours, and refueling outage replacement and in-place testing of filter systems. The NRC inspector reviewed selected records and test results from the 1987 refueling outage for the control room, containment building, safety injection pump room, spent fuel pool area, and auxiliary building air cleaning systems. In-place filter testing had been performed by an approved and QA audited contractor at the frequency to meet TS requirements and all tests results were determined to be within TS limits. Selected documents and surveillance tests listed in Attachment 1 to this report were reviewed.

No violations or deviations were identified.

8. Reports of Radioactive Effluents

The NRC inspector reviewed the licensee's reports concerning radwaste systems and effluent releases for compliance with the requirements of 10 CFR Part 50.36(a)(2) and Sections 5.9.3.f, 5.9.4.a, and 5.10.2.e in the TS. The NRC inspector reviewed the semiannual effluent release reports for the periods July 1 through December 31, 1986, and January 1 through June 30, 1987. These reports were written in the format described in NRC Regulatory Guide 1.21.

The NRC inspector's review of the semiannual radioactive effluent release reports verified that the licensee had reported all effluent release information to meet TS requirements. However, the NRC inspector found numerous typographical errors in the reports and had difficulty correlating and interpreting some of the data in the semiannual reports and how it met current TS requirements. The NRC inspector's concerns involved the lack of technical explanation and summary of effluent release data in a format which provided a direct correlation to TS requirements. It appeared that the format of the semiannual effluent release reports had not changed to conform with the implementation of the revised RETS.

The NRC inspector made the following observations during his review of the semiannual reports for the period July 1 through December 31, 1986, and January 1 through June 30, 1987:

- a. The title page to the July 1 through December 31, 1986, report indicates the report to include the annual report for TS 5.9.1.b and Appendix B; however, Appendix B no longer exists in the current FCS TS since the implementation of the revised RETS and Amendment 86 in October 1985.
- b. The introduction to the semiannual report for July 1 through December 31, 1986, refers to the annual report for TS 5.9.4 which deals with the Radiological Environmental Report which is not included in this report.

- c. The TS 2.9.1 objectives for liquids and gases are now expressed in radiation doses to the public and no longer expressed as release rates as stated in the TS prior to Amendment 86. The licensee is still reporting liquid and gaseous effluent releases in terms of release rates which do not correlate with current TS objectives. No correlation to TS objectives in terms of dose rates was made in the reports.
- d. The TS 2.9.1 specifications are currently based on 10 CFR Part 20, Appendix B, radionuclide concentrations for unrestricted areas and not release rates of radionuclides as stated in the TS prior to Amendment 86.
- e. The semiannual reports did not include a summary of cumulative dose contributions from radioactive materials in liquid and gaseous effluents released to unrestricted areas during a calendar quarter calculated in accordance with ODCM methodologies.
- f. The semiannual reports did not include an assessment of radiation doses to the public from radioactive liquids and gaseous effluents released during each calendar quarter.
- g. References to specific TS in the semiannual reports table of contents are in error and reflect TS references prior to the implementation of TS Amendment 86 rather than the current TS 5.9.4 paragraph designations.

The above mentioned observations were discussed with the licensee representatives during the exit interview on December 11, 1987. Many of the observations are the same as expressed during the exit interview conducted by the NRC inspector following the previous inspection of this area in September 1986. At that time, as well as now, the NRC inspector had concerns involving the semiannual effluent release report format and lack of explanation of effluent release data and offsite doses resulting from effluent releases. During the exit interview in September 1986, the licensee indicated that they would review the format used in the semiannual effluent release reports and implement modifications where necessary to assure that the technical data and information be presented in a logical and concise format to readily demonstrate TS compliance. Since there have been no apparent changes implemented in preparing the semiannual effluent release reports since the previous inspection of this area in September 1986 and there are still numerous errors in the report presentations, this is considered to be an open item (285/8734-01) pending licensee evaluation and necessary corrective action to produce a correct (error free) and readily understandable report which illustrates compliance to all applicable TS objectives and specifications.

No violations or deviations were identified.

9. Exit Interview

The NRC inspector met with the NRC senior resident inspector and the licensee representatives denoted in paragraph 1 at the conclusion of the inspection on December 11, 1987. The NRC inspector summarized the scope and findings of the inspection and discussed the inspector observations and details of the open item. The licensee representatives stated at the exit interview that they would evaluate the NRC inspector's observations and concerns and take necessary corrective action to implement program improvements.

ATTACHMENT 1

Fort Calhoun Nuclear Station

NRC Inspection Report: 50-285/87-34

Documents Reviewed

	<u>Title</u>	<u>Revision</u>	<u>Date</u>
1.	<u>Standing Orders (SO)</u>		
	SO G-10, Technical Specifications	5	05/31/83
	SO G-23, Surveillance Test Program	22	02/25/87
	SO G-27, Training	6	09/24/86
	SO M-26, Calibration Procedures	9	07/16/86
	SO T-2, Waste Liquid Release	21	11/09/84
	SO T-3, Waste Gas Release	20	11/09/84
	SO T-5, Primary Chemistry Summary Report	9	10/04/83
	SO T-7, Secondary Chemistry Summary Report	9	10/04/83
	SO T-12, Containment Purge Release	21	11/09/84
	SO T-13, Quality Control Program for Chemistry and Radiation Protection Equipment	27	08/25/87
	SO T-27, Calibration Procedures	2	10/31/86
	SO R-4, Operating Incident Reports	12	08/04/87
2.	<u>Chemistry Manual Procedures (CMP)</u>		
	CMP-1.0, Chemical Limits	25	04/15/87
	CMP-2.0, Sample Collection	13	08/06/84
	CMP-2.1, Grab Sampling	8	10/16/87
	CMP-2.2, Waste Gas Sampling System	3	09/02/87
	CMP-2.3, Composite Sampling Procedure	2	03/02/87
	CMP-2.4, Primary Sampling System - Normal Operation	2	02/11/87

CMP-2.5, Secondary Sampling System	1	04/23/85
CMP-2.6, Gaseous Effluent Sampling	3	10/05/87
CMP-4.4, Waste Liquid Release Permit	7	05/14/87
CMP-4.5, Containment Purge/Vent Release Permit	8	05/06/87
CMP-4.6, Waste Gas Release Permit	7	03/06/87
CMP-6.0, Offsite Dose Calculation Manual	2	03/06/87
3. <u>Chemistry Record Forms</u>		
FC-211, Waste Liquid Release Permit	5	01/17/86
FC-212, Containment Purge Release Permit	9	06/05/87
FC-213, Waste Gas Release Permit	6	01/17/86
FC-214, Reactor Coolant Summary Report	5	02/11/87
FC-215, Secondary Chemistry Summary Report	6	09/08/86
FC-240, RM-060 Iodine Cartridge Weekly Log	0	07/15/81
FC-261, Condenser Air Ejector Release Summary	2	10/02/86
FC-287, Steam Generator Release Summary	2	10/02/86
FC-293, Continuous Stack Release Summary	2	10/02/86
FC-302, Waste Gas Release Summary - Containment	4	02/04/86
FC-303, Waste Gas Decay Tank Summary	0	10/02/85
FC-339, Monitor Tank Releases Monthly Composite Data Sheet	6	05/07/87
FC-341, Steam Generator Blowdown and Secondary Releases Monthly Composite Data Sheet	5	01/14/87
FC-364, Non-Routine Analysis Report	1	02/23/85
FC-417, Instrument Check Panel No. AI-110	0	03/18/86
FC-421, Quarterly Cumulative Dose Contributions from Radioactive Effluents	0	08/19/86

4. Operating Instructions (OI)

OI-WDL-1, Collection and Transfer of Liquid Waste	31	07/17/87
OI-WDL-2, Waste Disposal Liquid Normal Operation Process	13	07/17/87
OI-WDL-3, Liquid Waste Disposal	13	08/06/87
OI-WDG-1, Waste Gas System Normal Operations	18	07/30/87
OI-WDG-2, Waste Gas Release	4	05/11/86
OI-WDG-3, Waste Gas Sampling System (AI-110) Operation	6	07/02/87

5. Calibration Procedures (CP)

CP-050, Electronic, Secondary, and Primary Calibration Procedure for Stack/Containment Gas Monitor	7	01/28/87
CP-051, Electronic, Secondary, and Primary Calibration Procedure for Stack/Containment Gas Monitor	8	03/06/87
CP-052, Electronic, Secondary, and Primary Calibration Procedure for Stack Gas Monitor	7	02/26/86
CP-053, Electronic, Secondary, and Primary Calibration Procedure for Component Cooling Water Monitor	5	12/17/86
CP-054A, Electronic, Secondary, and Primary Calibration Procedure for Steam Generator Blowdown Monitor	6	03/30/87
CP-054B, Electronic, Secondary, and Primary Calibration Procedure for Steam Generator Blowdown Monitor	6	03/30/87
CP-055, Electronic, Secondary, and Primary Calibration Procedure for Monitor Tank Discharge Monitor	7	01/05/87
CP-055A, Electronic, Secondary, and Primary Calibration Procedure for Overboard Waste Discharge Monitor	9	12/30/85

CP-056A, Electronic, Secondary, and Primary Calibration Procedure for Raw Water Effluent Monitor	7	03/30/87
CP-057, Electronic, Secondary, and Primary Calibration Procedure for Condenser Offgas Monitor	7	12/04/86
CP-059, Electronic, Secondary, and Primary Calibration Procedure for Waste Disposal Auxiliary Steam Condensate	5	03/30/87
CP-060, Electronic, Secondary, and Primary Calibration Procedure for Stack Iodine Monitor	10	10/13/87
CP-061, Electronic, Secondary, and Primary Calibration Procedure for Stack Gas Monitor	5	04/20/86
CP-062, Electronic, Secondary, and Primary Calibration Procedure for Stack Gas Monitor	10	05/30/87
6. <u>Surveillance Tests (ST)</u>		
ST-CHEM-1, Chemical and Radiological Sampling	24	03/10/87
ST-RM-2, F.1, Process Monitors	39	11/06/86
ST-RM-2, F.2, Process Monitor Checks	39	11/06/86
ST-RM-2, F.3, Process Monitor and Effluent Flow Rate Calibration	39	11/06/86
ST-RM-2, F.4, Process Monitor and Effluent Flow Rate Calibration	39	11/06/86
ST-RM-2, F.5, Post-Accident Main Steam Line Radiation Monitor RM-064 Isolation Valves	39	11/06/86
ST-WG-2, F.2, Waste Gas Hydrogen and Oxygen Monitor Cross Comparisons	4	02/17/87
ST-WG-2, F.3, Waste Gas Hydrogen and Oxygen Monitor Calibration	4	02/17/87
ST-CRV-1, F.1, Control Room Filter Circuit Operation	8	12/30/86

ST-CRV-1, F.2, Control Room Ventilation Damper Operation	9	05/16/87
ST-CRV-1, F.3, Control Room Ventilation Positive Pressure Check	9	05/16/87
ST-FIL-1, F.1, Containment HEPA Filter Banks VA-5A and VA-5B Inspection	5	06/07/85
ST-FIL-1, F.2, Containment Charcoal Filter Banks VA-6A and VA-6B Inspection	5	06/07/85
ST-FIL-1, F.3, Containment Filter Train Pressure Drop	5	06/07/85
ST-FIL-2, F.1, Safety Injection Pump Room Charcoal Filter Freon Test of the Adsorbers VA-26A and VA-26B	11	10/21/85
ST-FIL-2, F.2, Control Room HEPA Filter DOP Test VA-64	11	10/21/85
ST-FIL-2, F.3, Control Room Charcoal Filter Freon Test VA-64	11	10/21/85
ST-FIL-2, F.4, Spent Fuel Pool Area Charcoal Filter Freon Test VA-66	11	10/21/85
ST-FIL-2, F.5, Pressure Drop Across Control Room Filter Banks VA-64	11	10/21/85
ST-IR-1, F.1, Safety Injection Pump Room Charcoal Filters (VA-26A and VA-26B) Elemental Iodine Removal Efficiency Test	9	11/20/85
ST-IR-1, F.2, Spent Fuel Pool Area Charcoal Filter (VA-66) Elemental Iodine Removal Efficiency Test	9	11/20/85
ST-IR-1, F.3, Containment Charcoal Filters (VA-6A and VA-6B) Methyl Iodide Removal Efficiency Test	9	11/20/85
ST-IR-1, F.4, Control Room Charcoal Filter (VA-64) Iodine Removal Efficiency Test	9	11/20/85

ST-VA-1, F.1, Containment Air Cooling and Filtering System	17	03/06/85
ST-VA-1, F.2, Containment Air Cooling and Filtering System Filter Circuit Operation	19	04/09/87
ST-VA-1, F.3, Containment Air Cooling and Filtering System Fan and Remotely Operated Damper Check	18	09/03/86
ST-VA-1, F.4, Containment Air Cooling And Filtering System Flow Determination	19	04/09/87
ST-VA-1, F.5, Containment Air Cooling and Filtering System	19	04/09/87
ST-VA-2, F.1, Fusible Linked Automatic Dampers	7	03/06/85
ST-VA-4, F.1, Auxiliary Building Air Filtering Unit Operation	12	03/06/85
ST-VA-4, F.2, Safety Injection Pump Room Filter Circuit Operation	13	10/08/86
ST-VA-4, F.3, Spent Fuel Pool Area Filter Circuit Operation	13	10/08/86
ST-VA-4, F.6, Measurement of Control Room Filter Unit Air Flow	13	10/08/86
ST-VA-4, F.7, Measurement of Safety Injection Pump Room Filter Unit Air Flow	13	10/08/86
ST-VA-4, F.8, Measurement of Spent Fuel Pool Area Filter Unit Air Flow	13	10/08/86
7. <u>Quality Assurance Department Procedures (QADP), Surveillances, and Audits</u>		
QADP-3, Training and Certification of Audit Personnel	3	05/23/86
QADP-4, Training and Certification of Inspectors	3	04/30/87
QADP-5, Internal Audit and QA Surveillance Program Scheduling	3	12/03/85
QADP-6, Conduct of Audits	4	07/06/87

QADP-7, Conduct of QA Surveillances	5	09/02/87
QADP-11, Approval and Audit of Vendors	6	07/06/87
QADP-14, Deficiency Tracking and Trending	4	03/31/87
QADP-15, Control of QA Department Documents and Records	8	05/18/87
QADP-17, Control of Deficiencies and Corrective Action	3	03/31/87

QA Surveillance Report (QASR), S-30, Liquid Effluent Release (March 1986, September 1986, March 1987)

QASR, S-12, Waste Gas Releases (March 1986, September 1986, February 1987)

QASR, S-39, Containment Purge Releases (May 1986, November 1986, March 1987)

Safety Audit Review Committee (SARC) Internal Audit Schedules for 1986, 1987, and 1988

SARC Audit Report No. 63, Radiological Effluent Program, conducted November 24, 1986 - December 5, 1986

8. Fort Calhoun Station Semiannual Effluent Release Reports

July 1, 1986, through December 31, 1986

January 1, 1987, through June 30, 1987