

APPENDIX

NRC Management Meeting Report: 50-285/83-22

Licensee: DPR-40

Docket: 50-285

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

Facility Name: Fort Calhoun Station (FCS), Unit 1

Meeting at: US NRC Region IV office
Arlington, Texas

Meeting conducted: July 6-7, 1983

Originator: *[Signature]*
H. D. Chaney, Radiation Specialist

8/25/83
Date

Approved: *[Signature]*
Blaine Murray, Chief, Facilities Radiation
Protection Section

8/25/83
Date

[Signature]
W. D. Johnson, Chief, Reactor Project
Section C

8/29/83
Date

Meeting Summary

Management meeting on July 6-7, 1983 (Report No. 50-284/83-22)

Scope of meeting: Meeting held at the NRC regional office in Arlington, Texas, to discuss licensee actions on 49 previously identified open items concerning radiation protection and radiochemistry activities at FCS. The licensee's provided specific corrective action and proposed completion dates were reviewed to determine adequacy.

Results: Of the original 49 items, 3 were closed out during the meeting and the remaining 46 items had action completion dates established.

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DETAILS

1. Persons In Attendance

OPPD

W. C. Jones, Division Manager, Production Operations
W. G. Gates, Plant Manager, FCS
G. L. Roach, Supervisor of Chemical and Radiation Protection Department, FCS
F. F. Franco, Manager, Radiological Health and Emergency Planning

NRC

J. T. Collins, NRC Regional Administrator
P. S. Check, Deputy Regional Administrator
J. E. Gagliardo, Director, Division of Resident, Reactor Project & Engineering Programs
W. C. Seidle, Chief, Reactor Project Branch 2
W. D. Johnson, Chief, Reactor Project Section C
L. A. Yandell, Senior Resident Inspector, FCS
R. L. Bangart, Director, Division of Vendor and Technical Programs
B. Murray, Chief, Facilities Radiation Protection Section
J. B. Nicholas, Radiation Specialist, Facilities Radiation Protection Section
H. D. Chaney, Radiation Specialist, Facilities Radiation Protection Section

3. Licensee Actions on Previously Identified Open Items

Item: Open Item (285/7805-03): Installation of Remote Containment Air Sampler - This item was discussed in NRC Inspection Reports 50-285/78-03, 50-285/79-14, 50-285/81-12, and 50-284/82-04 and involved the licensee's use of personnel to obtain the routine weekly air sample from within the reactor containment during reactor operation.

Discussion: The licensee had constructed and tested a remote containment air sampling system; the system failed to collect representative samples and was abandoned.

Subsequently, the licensee had evaluated the current processes involving personnel entry into the containment to obtain air samples from an ALARA cost-benefit viewpoint. Licensee results indicate that in order to reduce the expenditure of a few millirem (approximately 1-3) in obtaining the (not more frequent than weekly) in containment air samples, many thousands of dollars would need to be expended in design, procurement, and installation of a suitable remote air sampling system for in containment air samples. The postaccident sampling system (PASS) design only provides for drawing of noble gas and coolant samples. Efficient iodine and particulate sampling via this system does not appear to be feasible due to the long sampling path.

NRC Action: The NRC will further evaluate the licensee's man-rem expenditure for performance of containment air samples at power containment entries during future NRC inspections.

Item: Open Item (285/8016-03): QA/QC Program for Gamma, Beta, and Neutron Personnel Monitoring Devices - This item was first discussed in NRC Inspection Report 50-285/80-16 and also again in NRC Inspection Report 50-285/81-28 and involved the failure of the licensee to provide full range calibration for personnel radiation exposure monitoring devices.

Gamma TLD: This portion was previously closed out on NRC Inspection Report 50-285/81-28.

Neutron TLD: This portion was previously closed out on NRC Inspection Report 50-285/82-30.

Beta TLD: The licensee is still performing evaluations and testing of TLD's for proper beta energy response.

Discussion: The licensee had a consultant perform a comprehensive beta spectrum evaluation throughout FCS and included interior surfaces of primary plant systems, auxiliary building and spent fuel pool area work spaces. Also the licensee's personnel dosimetry used for beta exposure was evaluated for possible design improvements by the dosimetry vendor and the contracted consultant. The beta exposure evaluation and implementation of all necessary corrective actions to the dosimetry calibration program will be completed by September 1, 1983.

NRC Action: The licensee's actions in regard to this concern appear to satisfy NRC concerns. This item will be reviewed during future NRC inspections.

Item: Open Item (285/8016-04): Internal Dosimetry Procedures - This item was discussed in NRC Inspection Reports 50-285/80-16 and 50-285/81-28 and involved the licensee's failure to establish an internal dosimetry program that meets the recommendations of ANSI Standard N343-1978 and NRC Regulatory Guide (RG) 8.26. The NRC inspector determined that the licensee had not provided suitable procedures that will ensure indirect bioassay sampling is performed properly, or provided suitable instructions for extrapolation of whole body counting data back to initial maximum permissible concentration-hours (MPC-hr) of exposure.

- Discussion: The licensee discussed a calibration and preuse performance check program that was implemented in December 1982 for the licensee's leased whole body counter (WBC). The licensee is currently reviewing and revising FCS procedures as necessary to resolve the NRC's concerns involving the indirect (excreta) bioassay sampling program to be completed by September 1, 1983. Also the licensee's bioassay procedures will be revised as necessary by November 1, 1983, to provide for the back calculation of MPC-hours of exposure based on direct (WBC) or indirect bioassay results.
- NRC Action: The licensee's actions in the above-noted areas will be reviewed during future NRC inspections. The licensee's summary of the WBC calibration and preuse check program appear to satisfy the NRC's concerns in this area.
- Item: Open Item (285/8016-05): Portable Instrument Calibration - This item was previously discussed in NRC Inspection Reports 50-285/80-16, 50-284/81-28, and 50-285/82-30 and involved the licensee's lack of suitable calibration and preuse check programs for several radiation monitoring and air sampling instruments. Two of the NRC concerns had already been closed.
- Discussion: This item previously addressed five types of instruments and one performance check procedure. The licensee indicated the following actions were being taken to resolve the remaining three specific NRC concerns noted below:
- Calibration of Portable Beta Dose Rate Measuring Instruments - The licensee has procured a strontium-90 beta source of significant activity and is in the process of obtaining National Bureau of Standards (NBS) certification for the source. Development of station instrument calibration procedures is in progress. Completion of all actions is scheduled for January 1, 1984.
 - Calibration of Portable Neutron Dose Rate Measuring Instruments - The licensee has completed all actions for calibration of neutron dose rate measuring instruments using both the station's neutron source and cross-comparison with the National Bureau of Standards' (NBS) moderated californium-252 source. The licensee has revised necessary calibration procedures to reflect this procedure. Actions are complete.

- Calibration and Use of Lapel Air Samplers - The licensee expects to complete all necessary procedures that will resolve the NRC's concerns over calibration, maintenance, and use of lapel air samplers by December 1, 1983.

NRC Action: The licensee's proposed actions appear to adequately address the NRC's concerns in the above-noted areas. Licensee actions will be evaluated during future NRC inspections.

Item: Open Item (285/8016-18): Documentation of Air Quality - This item was discussed in NRC Inspection Reports 50-285/80-16, 50-285/81-21, and 80-285/82-30 and involved the failure of the licensee to establish a program to verify both station-supplied and vendor-supplied breathing air met NUREG-0041 recommendation for Grade D breathing air.

Discussion: The licensee has procured analytical standards and expects all equipment and procedures to be operational by August 1, 1983.

NRC Action: The licensee's proposed program to verify breathing air quality appears to satisfy NRC concerns. The licensee's actions will be reviewed during future NRC inspections.

Item: Open Item (285/8016-26): High Background Near Steam Generator Monitors - This item was discussed in NRC Inspection Report 50-285/80-16 and established that a high radiation background continues to exist near the steam generator monitors.

Discussion: The licensee has provided for evaluation and resolution of this problem during the scheduled 1984 outage. The licensee anticipates that either the detector will be relocated to a lower background area or a specifically designed shield will be used to reduce area background influence. All actions are expected to be completed by November 1, 1984.

NRC Action: The licensee's proposed actions appear to be satisfactory to resolve the NRC's concerns in this area. The results of these actions will be reviewed during future NRC inspections.

- Item: Open Item (285/8016-29): Radioactive Releases From Steam Generator Blowdown - This item was discussed in NRC Inspection Report 50-285/80-16 and identified that noncondensibles from the steam generator blowdown flow are a potential source of a radioactivity release to the environment and should be monitored prior to steam generator venting.
- Discussion: The licensee has completed installation of a processing system (demineralization and recycling) for treatment of steam generator blowdown effluent. Blowdown effluent monitoring already exists. The licensee expects to complete system preoperational testing by November 1, 1984.
- NRC Action: The licensee's proposed actions appear to satisfactorily resolve the NRC concerns. Licensee actions will be reviewed during future NRC inspections.
- Item: Open Item (285/8016-31): Testing of Auxiliary Building HEPA Filters - This item was discussed in NRC Inspection Reports 50-285/80-16, 50-285/81-21, and 50-285/82-30 and involved the licensee failure to implement surveillance, maintenance, and testing programs for the auxiliary building filtered ventilation system in order to satisfy the recommendations of NRC RG 1.140.
- Discussion: The licensee has upgraded the inspection, surveillance, and maintenance programs for the auxiliary building ventilation HEPA filter system; however, in regard to the NRC's request to implement inplace testing in accordance with the recommendations of NRC RG 1.140, the licensee feels that the recommendations of NRC RG 1.140 are not applicable to this ventilation system.
- NRC Action: NRC Region IV management stated during the July 6-7, 1983, meeting that it would not be necessary to establish a program to satisfy NRC RG 1.140. No further licensee action is required for this item.

Item: Open Item (285/8016-32): Effluent Monitor Calibrations - This item was discussed in NRC Inspection Reports 50-285/80-16, 50-284/81-21, 50-285/82-30, and 50-285/83-06 and involved the licensee's lack of full range and energy calibrations for process and effluent monitors to satisfy the recommendations of ANSI Standards N323-1978 and N42.18-1980. Also, the sample lines for monitors RM-050, 051, 061, and 062 do not appear to be constructed in a manner that would provide representative sampling of aerosols.

Discussion: The licensee is initiating action to provide traceability of the currently used solid calibration sources to the initial manufacturer's effluent instrument calibration and evaluation of the current calibration procedures for agreement with the NRC concerns addressed in NRC Inspection Reports 50-285/82-30 and 50-285/83-06. The licensee has established a completion date for this part (source calibration) as March 1, 1984. The licensee has scheduled the development of testing procedures for determining the representativeness of sampling for RM-050, 051, 061, and 062 to be completed by September 1, 1983. Completion of testing of the subject systems is scheduled for February 1, 1984.

NRC Action: The licensee's proposed actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during a future NRC inspection.

Item: Open Item (285/8016-33): Curie Content of Packages - This item was discussed in NRC Inspection Reports 50-285/80-16, 50-285/81-21, and 50-285-82/26 and involved the licensee's method of determining the curie content of waste packages.

Discussion: The licensee has initiated action to revise appropriate procedures to reflect the use of the curie content estimation process reference in NRC Inspection Report 50-285/82-26, and retrain appropriate station personnel in the use of the new curie content estimation procedure. Scheduled completion has been set at September 1, 1983.

NRC Action: The licensee's proposed actions appear satisfactory to resolve the NRC's concerns in this area. Licensee actions will be reviewed during future NRC inspections.

Item: Open Item (285/8016-38): Local Exhaust for Fume Hood - This item was discussed in NRC Inspection Reports 50-285/80-16 and 50-284/81-21 and dealt with the lack of sufficient air flow across the face of the radiochemical laboratory fume hood.

Discussion: The licensee has completed all necessary ventilation system modifications and system checkout. The air flow across the face of the fume hood is satisfactory.

NRC Action: The licensee's actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during future NRC inspections.

Item: Open Item (285/8016-40): NUREG-0737 Postaccident Sampling System (PASS) - This item was discussed in NRC Inspection Reports 50-285/80-16 and 50-285/81-12 and involved the licensee's lack of postaccident sampling procedures and adequacy of sampling equipment.

Discussion: Licensee actions concerning NUREG-0737 items are being tracked by other open items. See open item (285/8226-14) for PASS status.

NRC Action: This item (285/8016-40) will be closed.

Item: Open Item (285/8016-42): NUREG-0737 Emergency Support Facilities - This item was discussed in NRC Inspection Report 50-285/80-16 and involved the lack of suitable emergency support facilities.

Discussion: The licensee has provided FCS emergency support facilities at locations both on and offsite. The suitability of these facilities, in regard to NUREG-0737 recommendations, has been addressed in NRC Inspection Report 50-285/81-35 since the initial discussion in NRC Inspection Report 50-285/80-16.

NRC Action: This item (285/8016-42) is considered closed and any additional monitoring will be performed during future routine Region IV Emergency Preparedness Section inspections.

Item: Open Item (285/8016-43): NUREG-0616 NRC Interaction With Other Agencies - This item was discussed in NRC Inspection Report 50-285/80-16 and dealt with the licensee's lack of an established agreement with the NRC and other available support organizations near FCS regarding emergency response assistance.

Discussion: The licensee has established agreements with other organizations concerning assistance during emergency situations at FCS. The suitability of these agreements has been addressed in NRC Inspection Report 50-285/81-35 since the initial discussions in NRC Inspection Report 50-285/80-16.

NRC Action: This item (285/8016-43) is considered closed, and any additional monitoring will be performed during future routine Region IV Emergency Preparedness Section inspections.

Item: Open Item (285/8112-01): Quality Control of Chemistry Instrument Function Checks - This item was discussed in NRC Inspection Reports 50-285/81-12 and 50-285/82-21 and involved the finding that the function check log (Form FC-353) for nonradiological chemistry instrumentation in both the cold and hot laboratories was not completed satisfactorily prior to filing.

Discussion: The licensee plans on revising Form FC-353, "Chemistry Lab Instrument Functional Check Log," to provide for a review of the log each shift so as to ensure all appropriate instruments are functionally checked. Scheduled completion is September 1, 1983.

NRC Action: The licensee's proposed actions appear to resolve the NRC's concerns in this area. Licensee actions will be evaluated during future NRC inspections.

Item: Open Item (285/8128-01): ALARA Program - This item was discussed in NRC Inspection Reports 50-285/80-16, 50-285/81-28, and 50-285/82-30 and involved the licensee's failure to establish an adequate ALARA program.

Discussion: The licensee indicated that their ALARA program does satisfy all of the NRC's concerns set forth in NRC Inspection Report 50-285/82-30.

NRC Action: The licensee's ALARA program will be reevaluated during a future NRC inspection.

Item: Open Item (285/8128-03): Evaluation of Contract HP Technicians - This item was discussed in NRC Inspection Reports 50-285/81-28 and 50-285/82-30 and involved the licensee's failure to establish procedures that provided adequate guidance in evaluating the work experience of contract HP technicians. The licensee's procedures to resolve this item do not agree with the NRC staff position on accounting of hours worked for each year of creditable experience.

Discussion: The licensee has revised appropriate FCS procedures as of June 30, 1983, to provide guidance in the evaluation of creditable hours of work experience. The licensee has established 2000 work hours in no less than a 40-week period as being equivalent to 1 year of creditable experience.

NRC Action: The licensee's actions appear to resolve the NRC's concerns in this area. Licensee actions will be evaluated during future NRC inspections.

Item: Open Item (285/8221-01): Chemical and Radiation Protection Organization - This item was discussed in NRC Inspection Report 50-285/82-21 and regarded why the licensee had not filled the chemist position vacancy in a timely manner and had not developed implementing procedures governing functional area assignments.

Discussion: The licensee explained that the chemist position is only filled if there is a demonstrated need for filling the position, and that currently the station's work-load does not justify filling the position. The licensee also committed to evaluating the proceduralization of personnel assignments (daily) in the chemistry section. Scheduled completion is November 1, 1983.

NRC Action: The licensee's proposed actions appear to satisfactorily resolve the NRC's concerns in this area. Licensee actions will be evaluated during future NRC inspections.

Item: Open Item (285/8221-02): Chemical and Radiation Protection Personnel Training - This item was discussed in NRC Inspection Report 50-285/82-21 and regarded why the licensee had not developed a formal training program for the technical supervisor or professionals in the chemical and radiation protection department.

Discussion: The licensee will revise the training manual to provide for a formal training program for chemical and radiation protection department supervisors to include the provision for functional area assignment indoctrination and qualification. A completion date has not been established by the licensee.

NRC Action: Licensee's proposed actions appear to be responsive to the NRC's concerns. Development and implementation of licensee actions will be reviewed during future NRC inspections.

Item: Open Item (285/8221-03): Licensee's Internal Audits -
This item was discussed in NRC Inspection Report 50-285/82-21 and regarded why the licensee had not included, on the audit team for radiochemistry audits, a member knowledgeable in radiochemistry procedures and activities at nuclear power facilities.

Discussion: The licensee has committed to placing personnel with specialized experience (in radiochemistry and radiation protection activities) on audit teams during audits of chemistry and health physics programs. This action is complete.

NRC Action: The licensee's actions appear to be adequate to resolve the NRC's concerns. Licensee's actions will be evaluated during future inspections.

Item: Open Item (285/8221-04): Quality Control of Chemistry Analytical Measurements - This item was discussed in NRC Inspection Report 50-285/82-21 and identified that the licensee had not updated the list of chemistry instruments in standing order A-T-13 to include recently acquired instrumentation to match with the instrument calibration schedule posted in the chemistry laboratory area.

Discussion: The licensee has effected procedural change no. 10363 (May 1983) to standing order A-T-13 to include all appropriate chemistry department instrumentation. Action is complete.

NRC Action: Licensee's corrective action appears to resolve the NRC's concerns in this area. Licensee actions will be reviewed during future NRC inspections.

Item: Open Item (285/8221-05): Gas Partitioner Functional Check Procedure - This item was discussed in NRC Inspection Report 50-285/82-21 and identified that the licensee had not replaced a functional check procedure involving a new model instrument after deleting the previous functional check procedure for that instrument type.

Discussion: The licensee pointed out that the functional check for the gas partitioner is performed by procedural requirement during analysis performed to chemistry manual procedure (CMP) - 3.8, "Determination of Hydrogen, Nitrogen, and Oxygen." The licensee feels this satisfies a preoperational check requirement. Corrective action is complete.

NRC Action: The licensee's functional check provisions of CMP-3.8 appear to satisfy the NRC's concerns in this area. However, the NRC noted that the licensee should provide a separate functional check procedure as done with other chemistry department instruments. Licensee action will be reviewed during future NRC inspections.

Item: Open Item (285/8221-06): Instrument Calibration - This item was discussed in NRC Inspection Report 50-285/82-21 and identified that the licensee had not written approved calibration procedures for recently acquired instrumentation.

Discussion: The licensee has provided calibration procedures for all appropriate analytical instrumentation in the chemistry laboratory. Actions are complete.

NRC Action: Licensee actions will be reviewed during future NRC inspections.

Item: Open Item (285/8221-07): Instrument Functional Checks - This item was discussed in NRC Inspection Report 50-285/82-21 and identified that the licensee had not written approved functional check procedures for recently acquired instrumentation.

Discussion: The licensee has developed a schedule of instrument function check procedure implementation for selected chemistry laboratory analytical instruments.

<u>Analytical Instrument</u>	<u>Implementation Date</u>	<u>Functional Check Procedure No.</u>
Orion Model 601A pH Meter	January 11, 1983	FCP-LAB-20
Orion Model 901 pH Meter	*	
a/Sled Sodium Monitor	August 31, 1982	FCP-LAB-24
Cambridge Mark IV Hydrazine Analyzer	August 31, 1982	FCP-LAB-25
Orbisphere Oxygen Monitor	+	FCP-LAB-26
AA Spectrophotometer Model 2380	January 11, 1983	FCP-LAB-27
PASS pH Meter	*	FCP-LAB-28
Pye Unicam Spectrophotometer	+March 11, 1983	FCP-LAB-29

* not in service

+ not in service until completion of calibration and function check procedure performance

NRC Action: Licensee's actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during future NRC inspections.

Item: Open Item (285/8221-08): Radioactive Standard Preparation - This item was discussed in NRC Inspection Report 50-285/82-21 and identified that the licensee had not developed procedures or acquired detailed procedures for preparation of radioactive standards.

Discussion: The licensee is attempting to procure vendor receipts for standards preparation and is formalizing procedures for preparation and standardization of inhouse manufactured radioactive sources. The scheduled completion date for this action is March 1, 1984.

NRC Actions: The licensee's proposed actions appear to satisfy NRC concerns in this area. Licensee actions will be reviewed during future NRC inspections.

Item: Open Item (285/8221-09): Quality Control Cross-Check Program - This item was discussed in NRC Inspection Report 50-285/82-21 and identified that the licensee had not implemented an analytical spiked or split sample cross-check program inhouse or with an independent NRC-approved laboratory.

Discussion: The licensee is developing an inhouse cross-check program for evaluating chemistry technicians, analytical procedures, and equipment performance. This program and the NRC confirmatory measurement program will be used to the fullest extent for evaluation of the chemistry department analytical program. Scheduled completion has been set at March 1, 1984. The licensee committed to using NRC RGs 1.21, 4.14, and 4.15 guidance in development of a cross-check program.

NRC Action: The licensee's proposed actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during future NRC inspections.

Item: Open Item (285/8221-10): Chemistry/Radiochemistry Sampling - This item was discussed in NRC Inspection Report 50-285/82-21 and identified that the licensee had not developed detailed, written step-by-step sampling procedures for all chemistry/radiochemistry samples.

Discussion: The licensee has developed a schedule for developing/ revising procedures, training chemistry personnel, and implementing the new/revised sampling procedures. Completion of this action is scheduled for August 1, 1984. The NRC expressed the concern that an earlier completion date was not provided for. The licensee provided suitable justification as to the long lead time.

NRC Action: The licensee's proposed actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during future NRC inspections.

Item: Open Item (285/8221-11): Confirmatory Measurements - This item was discussed in NRC Inspection Report 50-285/82-21 and identified that the licensee had a high percentage of disagreements in the radiochemistry confirmatory measurement samples analyses.

Discussion: The licensee has taken several actions to improve their confirmatory measurement performance over that exhibited in 1982.

- . The gas decay sample pump was replaced due to a flow problem
- . Reestablish new purge times on gas decay tank
- . Reevaluated the values for analytical counting equipment reference standards

NRC Actions: The licensee's confirmatory measurement program performance will be evaluated during the 1983 NRC confirmatory measurement program inspection.

Item: Open Item (285/8226-01): Radiation Worker Training - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensee had not included all elements of NRC RG 8.27 recommendations into the radiation worker training program.

Discussion: The licensee has revised the FCS training manual to incorporate all appropriate training recommendations (including instructions on the bioassay program) contained in NRC RGs 8.27 and 8.29. This action has been completed.

NRC Action: The licensee's actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during future NRC inspections.

Item: Open Item (285/8226-02): Airborne Radioactivity Monitoring Program - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensee did not use a collection media for airborne radioactivity measurements acceptable by industry standards for establishing alpha concentrations.

- Discussion: The licensee has changed to a sample collection media that is acceptable for evaluation of airborne alpha radioactivity. Also, a complete evaluation of the FCS radiological air sampling program is being accomplished and is expected to be completed by December 1, 1983.
- NRC Action: The licensee's existing action and proposed actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during future NRC inspections.
- Item: Unresolved Item (285/8226-03): Radiation Protection Instrumentation Calibrations - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensee was not able to provide appropriate calibration data on all radiation protection instrumentation calibrations.
- Discussion: The licensee indicated that the subject records were not available at the time of the referenced NRC inspection due to their being photocopied at an offsite location. The subject records are now available onsite for inspection. Action is complete. The licensee committed to providing records that are temporarily offsite to the NRC inspectors prior to the end of any future inspections.
- NRC Action: Licensee actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during future NRC inspections.
- Item: Open Item (285/8226-04): Calibration of Whole Body Counter - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensee had not prepared a procedure for the whole body counter (WBC) consistent with ANSI-N343-1978.
- Discussion: The licensee has developed and implemented (December 1982) a program that provides detailed procedures for the periodic calibration and preuse calibration verification of the WBC. See item (285/8016-04) for additional information regarding the bioassay program. The calibration procedure satisfies the recommendations of ANSI N343-1978. Licensee action is complete on this item.
- NRC Action: The licensee's actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during a future NRC inspection.

Item: Open Item (285/8226-05): Management Control of Transportation Activities - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensee had not provided a suitable job description for personnel performing transportation activities, provided proper management review of day-to-day transportation activities, or implemented appropriate procedures that adequately cover all aspects of the licensee's transportation activities.

Discussion: The NRC will accept the generic position description of the chemistry and radiation protection technician as being satisfactory for addressing the collateral duties of the person performing solid radioactive waste (radwaste) and transportation activities. The licensee indicated that supervisory tours and operations review would continue to be used as a method in providing management oversight of transportation and radwaste activities. The licensee further committed to providing the following actions:

- . Review of existing radioactive material/waste shipment procedures for sufficiency of quality control (QC) hold points and checklists.
- . Provide for the following QC participation in future radioactive material/waste shipments
 - Independent QC inspection of selected shipments for verification of compliance with applicable DOT and NRC regulations.
 - Periodic review of waste shipment records to verify a continued direct management/supervisor involvement in transportation activities. The licensee has not established a completion date for the review of procedures and implementation of QC checks.
 - Unannounced inspections of labeling of material packaged for shipment.

NRC Action: The effectiveness of the licensee's proposed actions will be evaluated during future NRC inspections of licensee's transportation activities.

Item: Open Item (285/8226-06): Selection of Radioactive Material Transporting Packages - This item was discussed in NRC Inspection Report 50-285/82-25 and identified that the licensee had not implemented suitable procedures with appropriate quality assurance controls that will ensure that the proper selection and qualification of packages are performed for radioactive material shipments.

Discussions: The licensee has committed to providing quality assurance certification requirements to the procurement of Type A or greater radioactive material shipping containers. Also, the licensee will incorporate into station procedures the shipping container manufacturer's preuse, maintenance, and loading instructions when using special shipping containers. No scheduled completion has been established.

NRC Actions: Proposed licensee actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during future NRC inspections.

Item: Open Item (285/8226-07): Preparation of Packages for Shipment of Radioactive Materials - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensee had not implemented an adequate quality control program for the packaging of radioactive materials for shipment.

Discussion: Licensee actions to improve QC activities during radioactive material shipments set forth in items (285/8226-05) and (285/8226-06) will also be applied to this NRC concern.

NRC Action: Same as that specified for item (285/8226-05).

Item: Open Item (285/8226-08): Indoctrination and Training Program - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensee had not developed an adequate program for training of solid waste process operators.

Discussion: The licensee has implemented a comprehensive training program for solid waste process operations that includes actual performance demonstrations and qualifications. Listing of qualified solid waste process operators will be posted at the work site and periodic supervisory reviews of work activities will be accomplished. The licensee has established August 15, 1983, as the completion date of these actions.

NRC Action: The licensee's proposed actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during a future NRC inspection.

Item: Open Item (285/8226-09): Delivery of Completed Packages to Carriers - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensee had not implemented procedures that would ensure compliance with the waste shipment prior notification requirement of 10 CFR Part 71.5a.

- Discussion: The licensee has proposed that since FCS radioactive material shipping activities are comprised mostly of shipments not requiring the implementation of the 10 CFR Part 71.5a requirements, that they be allowed to only develop and implement a "prior notification" procedure when those infrequent type of shipments come about. The licensee was noted to have made a radioactive material shipment that required the prior notification of states and the NRC. The licensee via a contractor had satisfied the 10 CFR Part 71.5a requirements for this shipment.
- NRC Action: The NRC agrees with the licensee that they need only develop and implement procedures/instructions for the accomplishment of 10 CFR Part 71.5a activities when circumstances dictate. This item (285/8226-09) is considered closed.
- Item: Open Item (285/8226-10): Licensee Audit Program - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensee's audit team did not include a person knowledgeable in NRC and DOT transportation requirements on the audit team.
- Discussion: The licensee has committed to the utilization of personnel knowledgeable in DOT and NRC transportation requirements on future audit teams. Licensee action is complete.
- NRC Action: The licensee's proposed action appears to resolve the NRC's concerns in this area. Licensee actions will be reviewed during a future NRC inspection.
- Item: Open Item (285/8226-11): Examination of Licensee's Packages - This item was discussed in NRC Inspection Report 50-285/82-25 and identified that the licensee had not implemented programs or reevaluate the effectiveness of existing programs for the reduction of generated radioactive solid waste and processing of stored wastes needing unique processes.
- Discussion: The licensee will provide additional emphasis during employee refresher training on radioactive waste minimization practices, continue with area cleanup program (decontamination), and implement an inventory program for tracking waste volume generation performance. The licensee has established December 27, 1983, as the completion date for these actions.
- NRC Action: The licensee's proposed actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during future NRC inspections.

- Item: Open Item (285/8226-12): Radioactive Material Receipt and Shipment Records - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensee's radioactive material shipping records did not provide for the verification that all NRC and DOT requirements have been complied with for radioactive material shipments.
- Discussion: The licensee is developing new shipping records in order to comply with the new requirements of 10 CFR Parts 20.311, 61.0, and revisions to DOT requirements for shipping of radioactive material. The licensee has established December 27, 1983, as the completion date for these actions.
- NRC Action: The licensee's proposed actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during a future NRC inspection.
- Item: Open Item (285/8266-13): Licensee Solid Waste Packaging and Transportation Activity Procedures - This item was discussed in NRC Inspection Report 50-285/82-66 and identified that the licensee's procedures did not provide a concise and comprehensive program that will ensure compliance with all NRC and DOT regulations governing the licensee's activities involving transportation of radioactive materials.
- Discussion: The licensee agreed to review existing transportation procedures for proper and comprehensive instructions concerning the transportation of radioactive materials normal to FCS operations. This will be accomplished in concert with the actions specified in item (285/8226-12). The licensee has scheduled December 27, 1983, as the completion date for this action.
- NRC Action: The licensee's proposed actions appear to resolve NRC's concerns in this area. Licensee's actions will be reviewed during future NRC inspections.
- Item: Open Item (285/8226-14): NUREG-0737, Item II.B.3, "Postaccident Sampling Capability" - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensee's postaccident sampling system (PASS) was not operable.
- Discussion: The NRC expressed concern over the fact that the PASS system was not yet operational. The licensee has had to install two additional booster pumps to provide for a suitable sample flow. The licensee has established October 30, 1983, as the completion date for this item.

NRC Action: Licensee performance in bringing the PASS system online will be monitored by the Region IV inspectors during future NRC inspections. This item will remain open pending final review by both NRC's Region IV and NRR.

Item: Open Item (285/8226-15): NUREG-0737, Item II.F.1, "Additional Accident Monitoring Instrumentation," Attachment 1, "Noble Gas Effluent Monitor" - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensee's high range noble gas effluent monitors were not installed and operable.

Discussion: The licensee had completed installation of the high range noble gas effluent monitors February 1, 1983.

NRC Action: Licensee performance in this area will be monitored by the Region IV inspectors during future NRC inspections. This item will remain open pending final review by both NRC's Region IV and NRR.

Item: Open Item (285/8226-16): NUREG-0737, Item II.F.1, "Additional Accident Monitoring Instrumentation," Attachment 2, "Sampling and Analysis of Plant Effluents" - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensee's iodine gaseous and particulate effluent monitors were not installed and operable.

Discussion: The licensee had completed installation of the iodine, gas, and particulate monitors February 1983.

NRC Action: Licensee performance in this area will be monitored by the Region IV inspectors during future NRC inspections. This item will remain open pending final review by both NRC's Region IV and NRR.

Item: Open Item (285/8226-17): Calibration of Containment High-Range Radiation Monitors - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensee's calibration procedures did not include calibration below 10 R/h with a calibrated radiation source.

Discussion: The licensee has scheduled the required instrument calibration to be accomplished during the 1984 refueling outage. The licensee has scheduled June 1, 1984 as the completion date for this item.

NRC Action: The licensee's proposed actions appear to satisfy the NRC's concerns in this area. Licensee actions will be reviewed during a future NRC inspection.

Item: Open Item (285/8226-18): Modifications for Control Room Habitability - This item was discussed in NRC Inspection Report 50-285/82-26 and identified that the licensees had not completed modifications to satisfy NUREG-0737, Item III.D.3.4.

Discussion: The licensee has apparently completed only a portion of the actions required by NUREG-0737, Item III.D.3.4. The control room (CR) iodine monitor and CR shield wall evaluation have been completed. The only remaining portion is that concerning toxic gas monitoring for the CR environment, the licensee has scheduled June 30, 1984, as the completion date for this item.

NRC Action: Licensee performance in this area will be monitored by Region IV inspectors during future NRC inspections. This item will remain open pending final review by both NRC's Region IV and NRR.

Item: Open Item (285/8303-03): Radiation Work Permit (RWP) Information - This item was discussed in NRC Inspection Report 50-285/83-03 and identified that the licensee's maps showing the radiological conditions for containment, referred to on the front of an RWP, were not readily available to individuals desiring containment access on that RWP.

Discussion: The licensee has provided for the applicable radiation area maps to be available at the reactor containment access area. This action is complete.

NRC Action: The licensee's actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during a future NRC inspection.

Item: Open Item (285/8303-04): Teledose Meter Maintenance and Calibration - This item was discussed in NRC Inspection Report 50-285/83-03 and identified that the licensee had not established or implemented a procedure for incorporating the teledose meters into an approved maintenance and calibration program.

Discussion: This component is not user serviceable and will have to be returned to the manufacturer for any maintenance. The licensee has established an instrument preuse functional check procedure for the Teledose meter to verify response linearity to within plus or minus 10 percent of known dose rate values. Action has been completed.

NRC Action: The licensee's actions appear to resolve the NRC's concerns in this area. Licensee actions will be reviewed during a future NRC inspection.

Item: Open Item (285/8303-05): Respiratory Protection Program - This item was discussed in NRC Inspection Report 50-285/83-03 and identified that the licensee had not implemented a suitable respiratory protection equipment issue program or provided for the routine analysis of air samples for alpha radioactivity.

Discussion:

- (a) The licensee has evaluated the respiratory protection equipment issue program and has determined that improvements need to be made in control of equipment to prevent unauthorized use of equipment. The licensee has scheduled November 1, 1983, as the completion date for this item.
- (b) The licensee has revised the air sampling program based on an indepth inhouse evaluation of the program. Routine evaluation of air samples for alpha radioactivity will be required during situations that involve personnel exposure to areas/components containing known alpha radioactivity. The licensee has established December 1, 1983, as the completion date for this item.

NRC Action: The licensee's proposed actions for the items noted above appear to resolve the NRC's concerns. Licensee actions will be reviewed during future NRC inspections.