UNITED STATES
ATOMIC ENERGY COMMISSION
DIRECTORATE OF REGULATORY OPERATIONS
REGION II - SUITE 818
230 PEACHTREE STREET, NORTHWEST
ATLANTA, GEORGIA 30303

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RO Inspection Report No. 50-270/73-6

Licensee: Duke Power Company
Power Building
422 South Church Street
Charlotte, North Carolina 28201

Facility: Oconee Unit 2
Docket No.: 50-270
License No.: CPPR-34
Category: B1

Location: Seneca, South Carolina

Type of License: B&W, PWR, 2452 Mw(t)

Type of Inspection: Special, Announced

Dates of Inspection: May 14-17, 1973

Dates of Previous Inspection: April 25-27, 1973

Principal Inspector: F. Jape, Reactor Inspector
Facilities Test and Startup Branch

Accompanying Inspector: C. M. Campbell, Radiation Specialist
Radiological and Environmental Protection Branch

Other Accompanying Personnel: None

Principal Inspector: Frank Jape 6-12-73
F. Jape, Reactor Inspector Date
Facilities Test and Startup Branch

Reviewed by: R F Warnick 6/12/73
For C. E. Murphy, Chief Date
Facilities Test and Startup Branch

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SUMMARY OF FINDINGS

I. Enforcement Action

None

II. Licensee Action on Previously Identified Enforcement Matters

None applicable.

III. New Unresolved Items

73-6/1 Test Sequence for the Reactor Building Structural Integrity Test and the Integrated Leak Rate Test

The licensee's proposed test sequence differs from the guidance provided by RO Headquarters. (Details I, paragraph 3)

IV. Status of Previously Reported Unresolved Items

73-1/1 Core Flooding System Testing Requirements

The licensee has provided TP 201/7, "Core Flooding System Flow Test." This test has been completed and the results are being evaluated. (Details I, paragraph 7)

73-5/1 Reporting Component Failures As An Abnormal Occurrence or As An Unusual Event

Statements within periodic tests are being revised to delete the inference that all component failures are reported as unusual events. The event will be reported to supervision who will determine if the failure is an abnormal occurrence or an unusual event, and make the appropriate report.

This item is closed. (Details I, paragraph 8)

73-5/2 PT 620/15, "Keowee Hydro Operational Test"

Data were reviewed that demonstrated that the hydro units will perform equally well with or without the d.c. oil pumps. The RO inspector had no further questions on this item.

This item is closed. (Details I, paragraph 9)

73-5/3 Adequate Test of the LPI System

The licensee has provided TP 203/6, "LPI System Engineered Safeguards Test." Following review of this TP, the inspector had no further questions.

This item is closed. (Details I, paragraph 10)

V. Unusual Occurrences

None

VI. Other Significant Findings

None

VII. Management Interview

A management interview was held with J. E. Smith, Plant Superintendent, on May 17, 1973, at the conclusion of the inspection.

The following items were discussed:

A. Review of Preoperational QA Program

The inspector stated that he had reviewed the QA program for preoperational testing. Specifically, Criteria X, "Inspection," XVI, "Corrective Action," and XVIII, "Audits," of 10 CFR 50 were reviewed.

1. Criterion X, "Inspection"

The inspector noted that the QA staff has not yet begun inspections of procedure conformance. To date, inspection has been related to other activity. The plant superintendent agreed with this finding and indicated that a review of inspection activity will be made.

2. Criterion XVI, "Corrective Action"

The inspector had no questions on corrective action activities.

3. Criterion XVIII, "Audits"

The inspector stated that he had reviewed records of audits performed by the QA staff. The inspector noted that the QA

staff was still in the process of developing procedures and checklists for their audits. The plant superintendent confirmed this finding. (Details I, paragraph 2)

B. Test Sequence for the Reactor Building Structural Integrity Test and the Integrated Leak Rate Test

The inspector stated that he had reviewed the testing sequence presented in TP 150/3, "Reactor Building Integrated Leak Rate Test," and found it to be in disagreement with AEC guidance on the subject. The licensee's representative stated that they prefer the sequence as given in TP 150/3. The inspector stated that the matter has been referred to AEC Headquarters and will be carried as an unresolved item. (Details I, paragraph 3)

C. Review of Maintenance Procedures

Comments on maintenance procedures were discussed with a licensee representative. These were summarized by the inspector and resolution on all issues was tentatively concurred in by the licensee. (Details I, paragraphs 4 and 5)

D. Operating Procedures and Emergency Procedures

The inspector stated that operating procedures (OP) and emergency procedures (EP) were compared with AEC Safety Guide 33 and ANS 3.2. The comparisons revealed several conditions that were not yet covered. The plant superintendent indicated that these would be studied. (Details I, paragraph 11)

E. Previously Reported Unresolved Items

The status of previously reported unresolved items, as described in the Summary of Findings, was discussed.

F. RC System Hydro Test

The inspector stated that he witnessed the RC system hydro test and had no questions or comments on the test. (Details I, paragraph 14)

G. Right Angle Bends in Sample Delivery Line

The inspector stated that he had observed that the right angle bends in the reactor building sample delivery line, where the line enters its process monitor (2RJA-47), had been removed. (Details II, paragraph 9)

H. Procedure for Shipment of Radioactive Materials

The procedure for shipment of radioactive materials had been completed. (Details II, paragraph 4)

I. Efforts to Reduce Halogen Losses in Sample Delivery Line

The inspector stated that insulation of the stack (unit vent) sample delivery line had not yet been done. He further stated his understanding that this would be completed prior to fuel loading. Management agreed. (Details II, paragraph 9)

J. Process and Area Monitors

The inspector reviewed progress made with process and area monitors since the previous inspection in March 1973. The inspector stated his understanding that all units would be calibrated and fully operational prior to fuel loading. Management agreed that this was their plan but stated that if problems were encountered with specific instruments, they might want to negotiate for completion by initial criticality rather than by fuel loading. (Details II, paragraph 7)

K. Verification of Adequate Hood Air Flow

The inspector commented that the verification of adequate air flow in the Unit 2 sampling hood needs to be done. He further stated his understanding that this would be done upon completion of modifications to the sampling room. Management agreed that this was the situation. (Details II, paragraph 10)

L. Biological Shielding Survey

The inspector stated that the biological shielding survey procedure (TP/2/A/800/3) has not yet been approved. He stated his understanding that the procedure will be approved and the background survey completed prior to fuel loading. Management agreed with this understanding. (Details II, paragraph 11)

M. Radiochemical Procedures

The inspector stated that he had reviewed the Radiochemical Procedures Manual and that the procedure for performing gamma spectral analysis was still in draft form. He stated that this needs to be completed as an approved procedure. Management agreed that this would be taken care of. (Details II, paragraph 16)

N. Exposure to Thermoluminescent Dosimeter (TLD)

The inspector stated that he had reviewed the licensee's report of the exposure to a TLD that had previously been reported lost by the individual to whom it had been assigned. He stated that the report appeared to provide adequate basis for the conclusion that the exposure had been to the TLD and not to the individual. (Details II, paragraph 13)

O. AEC/South Carolina State Contract

The inspector briefly discussed the AEC/South Carolina state contract under the independent measurements program. He outlined the program and each participant's role. He further stated that we would request the licensee to provide certain environmental sample data directly to the state of South Carolina. Management agreed that there would be no problems in doing this. (Details II, paragraph 8)

DETAILS I

Prepared by: Frank Jape 6-12-73
F. Jape, Reactor Inspector Date
Facilities Test and Startup
Branch

Dates of Inspection: May 14-17, 1973

Reviewed by: RE Warnick 6/12/73
For C. E. Murphy, Chief Date
Facilities Test and Startup
Branch

1. Individuals Contacted

Duke Power Company (DPC)

J. E. Smith - Plant Superintendent
R. C. Collins - Unit 2 Performance Engineer
J. W. Cox - Assistant Plant Engineer
D. J. Rains - Assistant Plant Engineer
R. M. Koehler - Technical Support Engineer
J. Ansell - Junior Engineer
J. N. Pope - Shift Supervisor
J. W. Hampton - Assistant Plant Superintendent
H. B. Barron - Junior Engineer
M. D. McIntosh - Operating Engineer

2. Review of Station QA Program

The duties and responsibilities of the station QA staff are described in the Administrative Policy Manual for Operational Quality Assurance of Nuclear Stations (APM/NS). The performance and activity of the QA staff as related to Criteria X, XVI, and XVIII of 10 CFR 50 were reviewed by the inspector. The findings are summarized below.

a. Criterion X, "Inspection"

The station QA staff has a program in force for in-service inspections. The program has been primarily concerned with inspections of test procedure performance. Inspection of maintenance procedures (MP), periodic tests (PT), and instrument

procedures (IP) are being added to conform with the stated duties and responsibilities of the QA staff. Plans for inspections of operating procedures (OP) have not been implemented yet.

To date, inspection activity has been primarily related to Unit 1, but the program applies to all Oconee units.

b. Criterion XVI, "Corrective Action"

The procedure for handling corrective action items was discussed with the licensee's representative. A work order is issued whenever a deficiency or malfunction is observed. Each work order is serially numbered and each is accounted for by the QA staff. In addition, the QA personnel audit each work order to ensure the corrective action is completed.

If corrective action is required to a permanent station procedure, a "proposed procedure revision" form is processed. This form is reviewed and processed as described in Section 4.4.6 of the APM/NS. The QA staff audits and maintains these records along with the master copy of the procedure.

The inspector audited a randomly selected sample of ten of these revision forms and eight work orders which were processed for Unit 2. There was no major comment or question on them.

c. Criterion XVIII, "Audits"

Periodic audits are conducted by the QA staff. Written procedures and checklists have been prepared for some audits and others are in preparation. The results of each audit are summarized in a letter to the plant superintendent for his action or information. Followup on any deficient item is also done by the QA staff.

File copies of these audit activities were reviewed by the inspector. No major questions or comments were raised.

3. Reactor Building Integrated Leak Rate Test

The sequence in performing the structural integrity test and the integregated leak rate test of the containment building was discussed with the licensee's representative. The testing sequence prescribed in TP 150/3, "Reactor Building Integrated Leak Rate Test," is as follows:

a. Leakage rate will be determined at a reduced pressure.

b. Structural proof test will be conducted at 115% of design pressure.

c. Leakage rate will be determined at design accident pressure following a four-hour stabilization period at design accident pressure.

This sequence is not in agreement with AEC guidance on the subject which specified the following sequence:

a. Conduct the structural proof test.

b. Reduce pressure to less than design accident pressure and allow a stabilization period of four to six hours. Conduct leakage rate test at this reduced pressure.

c. Increase pressure to design accident pressure and allow a stabilization period of four to six hours. Conduct leakage rate test design accident pressure.

The licensee's representative stated that this matter will be reviewed and that he will notify the inspector of their decision. The inspector responded by stating that the matter will be carried as an unresolved item.

4. Review of Maintenance Procedures

The inspector reviewed three MP's. Comments on these MP's and their resolution are summarized below.

a. MP 1400/2, "Pressurizer Relief Valve Removal and Replacement"

Inspector's Comments

(1) Operating procedures referred to in this MP are for Unit 1. Shouldn't these be Unit 2 operation procedures?

(2) There are no sign off spaces provided in Section 12, "Restoration." Shouldn't these items be signed off?

Licensee's Response

The MP will be reviewed and the correct operating procedures will be inserted. Spaces to sign off the restoration steps will be added to the MP.

b. MP 1400/23, "HPI Pump Removal and Replacement"

Inspector's Comment

The procedure requires all electrical and instrumentation wiring to be disconnected, yet the restoration check does not cover a checkout of all instrumentation.

Licensee's Response

Consideration will be given to including a reference to the IP that checks out this equipment as part of the restoration section of the procedure.

c. MP 1400/22, "Main Steam Stopvalve Inspection"

Inspector' Comment

The rest ation step only requires the lock out tags to be removed and the ontrol circuits energized. Shouldn't the valve be functionally tested following maintenance?

Licensee's Response

These valves are required to be functionally tested prior o each reactor startup. Hence, there is no need to include an operational check following maintenance.

5. Maintenance Procedure Program

DPC's program for maintenance procedures was compared with AEC Safety Guide 33, "Quality Assurance Program Requirements (Operation)," and ANS 3.2, "Standard for Administrative Controls for Nuclear Power Plants." This comparison revealed that the format and content of MP's are as described in Safety Guide 33 and ANS 3.2.

6. Review of Test Procedures and Test Results

The following test procedures have been completed and the test results were reviewed by the Inspector. There were no comments or questions on these procedures or the results.

a. TP 203/2, "BWST Functional Test"

b. TP 261/2, "Condenser Circulating Water System Functional Test"

c. TP 250/5, "HPSW System Functional and Operational Test"

d. TP 200/6, "Pressurizer Heater Electrical Test"

7. Core Flooding System Test Requirement

Test requirements for the core flooding system were previously[1/] discussed with the licensee's representatives. The licensee has provided TP 201/7, "Core Flooding System Flow Test," which provides a velocity measurement of the flow from each core flood tank to the reactor vessel. This test has been completed and data are being analyzed to determine the adequacy of the core flooding system.

8. Reporting Component Failures As An Abnormal Occurrence or As An Unusual Event

In a previous inspection report,[2/] the inspector identified a number of periodic tests that contained a statement that component failures are to be reported as an unusual event. A newly worded statement has been provided by the licensee's representative which states that failure to meet stated acceptance criterion must be promptly reported. The report will be made to supervision who will determine if the failure is an abnormal occurrence or an unusual event. Proper reporting to the AEC will then follow this determination.

This previously identified unresolved item is now considered resolved.

9. Keowee Hydro Operational Test

A question was raised by the inspector during a previous inspection[3/] regarding the prestarting of the d.c. thrust bearing oil lift pumps prior to testing the Keowee hydro generators. The licensee's representative provided test data from TP 620/9, "Keowee Functional

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1/ See RO Inspection Report Nos. 50-270/73-1, Details I, Paragraph 5, and 50-270/73-3, Details I, paragraph 2.

2/ See RO Inspection Report 50-270/73-5, Details, paragraph 2.mm.

3/ See RO Inspection Report 50-270/73-5, Details, paragraph 2.kk.

Tests of Automatic Emergency Startup of Keowee from Oconee," which demonstrated that the hydro units perform equally well with or without prestarting the pumps.

This previously identified unresolved item is considered resolved. The inspector has no further questions on PT 620/15, "Keowee Hydro Operational Test."

10. Adequate Test of the LPI System

The test procedures reviewed by the inspector did not include a response check as prescribed in the FSAR.[1/] The licensee has provided TP 203/6, "LPI System Engineered Safeguard Test," which includes a determination of the LPI pump response.

This previously identified unresolved item is now considered resolved.

11. Operating Procedures and Emergency Procedures

The operating procedures (OP) and emergency procedures (EP) in preparation for Unit 2 were compared with those in AEC Safety Guide 33," Quality Assurance Program Requirements Operations," and ANS 3.2, "Standard for Administrative Controls for Nuclear Power Plants." This comparison revealed the following lack of OP's and EP's:

a. OP for auxiliary building heating and ventilation system.

b. OP for instrument air system.

c. OP for scram recovery.

d. EP for loss of instrument air.

e. EP for malfunction of automatic reactivity control system.

f. EP for malfunction of pressure control system.

The need for these procedures was discussed with the licensee's representatives. Their response was that a procedure would be provided or a related alarm procedure (AP) would be expanded to cover the issue.

1/ See RO Inspection Report 50-270/73-5, Details, paragraph 2.j.

12. Review of Operating Procedures

The inspector reviewed the following operating procedures and had no major comment or question regarding them:

a. OP 1104/04, "LPI System"

b. OP 1103/02, "Filling and Venting the RC System"

c. OP 1103/06, "Reactor Coolant Pump Operation"

d. OP 1104/02, "HPI System"

e. OP 1104/08, "Component Cooling System"

13. Review of Emergency Procedures

The inspector reviewed the following emergency procedures and had no major comment or question regarding them:

a. EP 1800/14, "Loss of Steam Generator Feedwater"

b. EP 1800/22, "Loss of Flux Indication"

c. EP 1800/23, "Loss of Containment Integrity"

d. EP 1800/24, "Abnormal Release of Radioactivity"

14. TP 200/3c, "Reactor Coolant System Hydro Test"

The inspector witnessed the reactor coolant system hydro test. The test was successfully completed at a pressure of 3125 psig on May 16, 1973. The test pressure was held at 3125 psig for ten minutes as specified in USAS B31.7 Nuclear Power Piping Code, and then lowered to 2500 psig. The pressure was held at 2500 psig for approximately three hours while an inspection was made for leaks. The inspection was conducted by a Hartford Steam Boiler Insurance inspector and a DPC representative. AEC inspector F. Jape also observed the piping system at 2500 psig.

The makeup volume at 3125 psig was determined to be 6.037 gal/min and 10.38 gal/min at 2500 psig.

The inspector noted that the Heise gage used to measure system pressure was calibrated on April 16, 1973, and again on May 15, 1973, and was reported to be accurate to ±5 psi. Special relief valves were installed on a low point drain line on each of the four reactor coolant pump suction lines. These RV's were set at 3300 psig. The calibration was checked on May 9, 1973, on three valves and on May 10, 1973, on the fourth one.

A review of the data sheets and checklists revealed that the test procedure was followed as prescribed and eight changes of a minor nature were required to complete the test. The changes were processed on a proposed procedure revision form.

A detailed log was maintained throughout the performance of the test. The test was started on May 14, 1973, and completed on May 16, 1973.

The inspector did not find any item of nonconformance.

15. Instrument Trip Settings

The manner in which instrument trip settings are determined was discussed with the licensee's representative. The inspector was informed that instrument trip settings specified in the technical specifications are considered to be the systems parameters and are adjusted to arrive at a conservative setpoint such that the limiting conditions for operation are not exceeded.

The inspector had no question or comment on the manner in which instrument trip settings are handled.

16. Preoperational Testing Program Status

	NO.	%
Tests Completed and Results Approved	78	23.0
Tests Completed, Results Not Approved	22	6.5
Tests in Progress	8	2.4
Test Procedures Approved	206	60.7
Test Procedures in Process	25	7.4
	339	100.0

17. Status of RO's Review of the Preoperational Test Program

Test	Tests Reviewed		Test Results Reviewed	
Category	No.	%	No.	%
1	30	18.3	30	18.3
2	46	31.9	32	22.2
3	12	52.2	8	34.8

18. Bomb Threats at Reactor Facilities

DPC's action plan for handling bomb threats was reviewed by the inspector. There were no questions or comments regarding the plan.

19. Initial Site Inspection

The inspector has familiarized himself with the general area surrounding the Oconee Nuclear Station. The site appears to be as described in Section 2 of the FSAR.

20. Protection of Reactor Vessel Closure Threads and Head Studs

The inspector reviewed MP 1400/12, "Reactor Vessel Closure Head Stud Removal and Replacement." This procedure provides for removal of the reactor head before the area is flooded with borated water. The threaded openings in the reactor vessel are sealed with special caps to prevent exposure to a corrosive environment. The studs are stored in place in the head, but are blocked in a higher position than normal so that the threads are protected from external damage.

The inspector had no questions or comments on this matter.

21. Paddle-Type (Vane) Flow Switches

The inspector was informed that the only paddle-type flow switches at Oconee are in the RIA-35 radiation monitor system in the component cooling water sample line and that DPC's Engineering Department had completed an engineering evaluation justifying its use.

No further inspection effort is planned on this item at this time.

DETAILS II

Prepared by: C. M. Campbell 6-4-73
C. M. Campbell, Radiation Specialist, Radiological and Environmental Protection Branch — Date

Dates of Inspection: May 14-17, 1973

Reviewed by: J. T. Sutherland 6-4-73
J. T. Sutherland, Acting Chief, Radiological and Environmental Protection Branch — Date

1. Individuals Contacted

J. E. Smith - Plant Superintendent
R. M. Koehler - Technical Support Engineer
C. L. Thames - Health Physics Supervisor

2. Organizational Changes

None

3. Health Physics Personnel

Health physics personnel are currently working twelve hour shifts to provide adequate twenty four hour coverage for Units 1 and 2. The first of the five Health Physics Shift Representatives (HPSR) has been assigned to the health physics group for training purposes. Eventually there will be five HPSR's to provide routine health physics coverage on all shifts. These personnel will report to the Shift Supervisor and receive technical guidance from the Health Physics Supervisor. A member of the health physics group will be on-call to handle any items of other than a routine nature. The responsibilities of the HPSR's will be as detailed in Section III of the Health Physics Manual. In addition to the HPSR's three other persons are being recruited for day work in the Chemistry/Health Physics units. These will probably be people with associate degrees in related fields.

4. Health Physics Procedures

The inspector reviewed the completed procedures for: Shipment of Radioactive Materials; Respiratory Protective Equipment-Supplied Air Respirator; Respiratory Protective Equipment-Filter Respirator; Health Physics Procedure-Hydro Blitz 500 High Pressure Cleaner and the draft test procedure-Biological Shield Survey (TP/2/A/800/3).

5. Operating Procedure for the Resin Transfer System

This procedure has not been completed. It will be essentially the same as the unit 1 procedure (OP/1/A/11/04/23) modified to reflect the Unit 2 systems. The offsite transfer portion will be identical to the Unit 1 procedure (OP/1/A/1104/23).

6. Process Monitors

Discussions with licensee representatives and observations showed that all process monitors are now on-site and all but two (2RIA 16 & 17) are installed. Calibration of this system is in progress but has not yet been completed. A licensee representative stated that calibration of the system would be completed prior to fuel loading. A management representative agreed this was their plan, but said that if they encountered problems, they might request that these be calibrated and fully operational prior to initial criticality.

7. Area Monitors

All units have been received from the vendor and four of the seven units are installed. A licensee representative stated that these units have not yet been turned over to DPC from construction. A licensee representative assured the inspector that these will be calibrated prior to fuel loading. A management representative agreed that plans are to have these units installed, calibrated and fully operational prior to fuel loading.

8. Independent Measurements Program

The inspector discussed the forthcoming AEC/South Carolina contract and explained the involvement of Oconee. It was stated that in addition to the planned sampling requirements, we would ask the licensee to provide selected environmental sampling results directly to the State. Licensee representatives agreed to this and said they could foresee no problems with this arrangement. A management representative agreed to this arrangement.

9. Representative Sampling of Waste Streams

It was observed that the sharp angles in the reactor building sample delivery line, where it enters its process monitor (2RIA-47), have been replaced with gentle bends. Insulation of the stack sampling line, to reduce halogen condensation, has not been completed. A licensee representative informed the inspector that this was scheduled to be completed in about two weeks. Management agreed this would be completed prior to fuel loading.

10. Verification of Adequate Hood Air Flow

A licensee representative stated this was pending completion of modifications to the sampling room. These modifications have been completed for the unit 1 room and have been requested (via station problem report) for unit 2. The modifications include movement of valves into an adjacent pipeway to provide more freedom of movement, collection and channelling of valve leak-off from each valve into the sampling sink to prevent potential contamination from individual valve leakoff, and modification of the sample sink drain line to the waste tank. A licensee representative stated these modifications have been requested, via station problem report, and will be completed prior to fuel loading. The inspector was shown the station problem report requesting the modifications for units 1, 2 and 3.

11. Biological Shielding Survey

The inspector reviewed the draft test procedure (TP/2/A/800/3) Biological Shield Survey, which is currently undergoing review by the Station Review Committee. A licensee representative stated that the procedure approval and the background survey will be completed prior to fuel loading. This understanding was verified by management.

12. Whole Body Counts

A licensee representative stated that with the exception of three persons whole body scans have been completed on all unit 2 personnel. These will be done as soon as the personnel can be scheduled. The licensee has a Landauer-Gardray Shadow Shield, chair type whole body counter which is utilized to obtain these scans. The printout of each persons scan will be filed in the individuals radiation exposure file. A radiation exposure file for each individual is being established. This file will contain the individual's radiation exposure data, completed Form AEC-4, baseline whole body scan results and copies of any correspondence from previous employers regarding radiation exposure.

13. Exposure to Dosimetry Device

The inspector reviewed the licensee evaluation of the high exposure to a "lost" TLD that had been reported to RO:II on May 9, 1973. The inspector informed the licensee that the evaluation was comprehensive and appeared to substantiate the conclusions. The evaluation concluded that; the exposure to the TLD was real; the TLD was exposed subsequent to being

reported lost by the individual to whom it was assigned; the exposure to the TLD was the result of at least ten radiographic exposures performed using two Ir-192 sources; 69% of the TLD exposure was readily accounted for; and a dose of zero mrem was appropriate for assignment to the individual. To preclude this type of occurrence from happening again the licensee has implemented a formal procedure for handling lost dosimetry devices that includes exposure evaluation and prompt dose assignment upon notification to health physics of the loss as well as reissue of another dosimetry device. The inspector informed a licensee representative that the formal method of handling lost dosimetry devices was in order and that health physics should always issue an individual a replacement TLD at the time he gave notice of a lost device.

14. Installation of Count Rate Meters

A licensee representative stated that an additional 20 units have been ordered. He also stated that these units will be checked out upon receipt and placed in their respective unit 2 locations after construction activities in these areas has decreased. He further stated that by ordering 20 units this will provide an adequate number of instruments for unit 2 and also provide spare units. A licensee representative stated that seven additional racks have been fabricated and ready for installation.

15. Health Physics Training

A licensee representative stated that health physics training for unit 2 personnel is essentially up to date. He further stated that the last health physics indoctrination training session was held on May 5, 1973. Examination of the individual training file of an individual in that training session showed that the training had been appropriately documented. A licensee representative stated that all but the most recently assigned (seven) individuals have had the health physics indoctrination training.

16. Radiochemical Control Procedures

Review of the Chemistry Management Program and the Radiochemical Procedures Manual showed these to essentially be in accordance with Safety Guide 33. Approved procedures for all radiochemical analyses were written except for RC Procedure #11 - Gamma Spectral Analysis which was still in handwritten draft form. Licensee representatives were uncertain as to the status of an approved procedure. A licensee representative stated this would be checked into and if the procedure had not been approved appropriate action would be taken to complete the approval. Management also agreed to this.

17. Safety Guide 33 (SG-33) Review of Selected Health Physics Procedures

The inspector completed the review of selected health physics procedures with respect to the requirements of Safety Guide 33 (SG-33) - Quality Assurance Program Requirements. Some of this inspection effort was performed during previous inspections. The areas inspected (and SG-33 reference) included: Alarm Response Procedures for Area and Process Radiation Monitoring Systems (Appendix A, Section C.22 and 23); Operating Procedures for Liquid, Gaseous and Solid Waste Disposal Systems and the station Health Physics Manual (Appendix A Sections G.1-5); Calibration Procedures for Area, Process and Environmental Monitoring Instrumentation (Appendix A, Sections H.2.a.28,29 and 30); and Radiochemical Control Procedures (Appendix A, Section J.). Some of the reviewed procedures are Station Procedures (e.g. the Health Physics Manual and Radiochemistry Procedures). Results of the procedural review show that unit 2 procedures are essentially in accordance with SG-33. Approved procedures are not yet completed for the operation of the Unit 2 resin transfer system, a Radiochemical procedure for Gamma Spectral Analysis, nor operation and calibration procedures for the recently acquired Beckman liquid scintillation system.

18. Beckman Liquid Scintillation System

A licensee representative stated that the system is installed and fully operational. He further stated that the operating and calibration procedures have not yet been written but will be completed as soon as possible. They plan to use as much of the vendor procedures as possible. Management agreed these procedures will be completed.