



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

Report Nos. 50-259/80-40, 50-260/80-35 and 50-296/80-34

Licensee: Tennessee Valley Authority
500A Chestnut Street Tower II
Chattanooga, Tennessee 37401

Facility: Browns Ferry Nuclear Plant

Docket Nos. 50-259, 50-260, and 50-296

License Nos. DPR-33, DPR-52, and DPR-68

Inspection at Browns Ferry Site near Athens, Alabama

Inspectors: R. F. Sullivan
J. W. Chase
R. J. Marsh

Approved by: H. C. Dance
H. C. Dance, Section Chief, RONS Branch

1-9-81
Date Signed

SUMMARY

Inspection on October 1-31, 1980

Areas Inspected

This routine inspection involved 145 resident inspector-hours in the areas of operational safety, reportable occurrences, plant physical protection, refueling outage, reactor trips, health physics, and maintenance. Details II involved 16 inspection hours of a special inquiry into the recording of required plant data.

Results

Of the seven areas inspected, no items of noncompliance or deviations were found in five areas; four apparent items of noncompliance were found in two areas. (Infraction - failure to have all refueling interlocks operable during refueling operations, paragraph 6; Infraction - loading fuel assemblies with one control rod withdrawn, paragraph 6; Infraction - failure to follow procedures for testing refueling interlocks, paragraph 6; Infraction - Ineffective corrective actions to prevent the failure to obtain scram discharge volume header readings at the specified time intervals, paragraph 5).

8108120 770

Report Nos. 50-259-80-40
50-260/80-35
50-296/80-34

Details I

Prepared by: P. A. Taylor for 1-9-81
R. W. Sullivan Date Signed
P. A. Taylor for 1-9-81
J. W. Chase Date Signed

Dates of Inspection: October 1-31, 1980

Approved by: H. C. Dance 1-9-81
H. C. Dance, Section Chief, RONS Branch Date Signed

1. Persons Contacted

Licensee Employees

H. L. Abercrombie, Plant Manager
J. L. Harness, Assistant Plant Manager
J. B. Studdard, Operations Supervisor
R. Hunkapillar, Assistant Operations Supervisor
J. A. Teague, Maintenance Supervisor, Electrical
M. A. Haney, Maintenance Supervisor, Mechanical
J. R. Pittman, Maintenance Supervisor, Instruments
R. G. Metke, Results Section Supervisor
R. T. Smith, QA Supervisor
J. E. Swindell, Outage Director
B. Howard, Plant Health Physicist
R. E. Jackson, Chief, Public Safety
R. Cole, QA Site Representative, Office of Power
T. L. Chinn, Compliance Staff Supervisor

Other licensee employees contacted included licensed senior reactor operators and reactor operators, auxiliary operators, craftsmen, technicians, public safety officers, QA personnel and engineering personnel.

2. Management Interviews

Management interviews were conducted on October 3, 16 and 31, 1980 with the Plant Manager and selected members of his staff. The inspectors summarized the scope and findings of their inspection activities. The licensee was informed of four apparent items of noncompliance that were identified during this report period.

3. Licensee Action in Previous Inspection Findings.

Not inspected.

4. Unresolved Items

There were no unresolved items identified during this report period.

5. Operational Safety

The inspectors kept informed on a daily basis of the overall plant status and any significant safety matters related to plant operations. Daily discussions were held each morning with plant management and various members of the plant operating staff.

The inspectors made frequent visits to the control room such that each was visited at least daily when an inspector was on site. Observations included instrument readings, setpoints and recordings; status of operating systems; status and alignments of emergency standby systems; purpose of temporary tags on equipment controls and switches; annunciator alarms; adherence to procedures; adherence to limiting conditions for operations; temporary alterations in effect; daily journals and data sheet entries; and control room manning. This inspection activity also included numerous informal discussions with operators and their supervisors.

General plant tours were conducted on at least a weekly basis. Portions of turbine building, each reactor building and outside areas were visited. Observations included valve positions and system alignment; snubber and hanger conditions; instrument readings; housekeeping; radiation area controls; tag controls on equipment; work activities in progress; vital area controls; personnel badging, personnel search and escort; and vehicle search and escort. Informal discussions were held with selected plant personnel in their functional areas during these tours.

On October 6, 1980 at 10:45 a.m., an inspector reviewed the ultrasonic test (UT) recording strip charts installed on unit 3 scram discharge volume header piping (SDVH). The UT assembly is used to monitor for any accumulation of water in the SDVH. Similar UT assemblies are also installed in the SDVH for unit 1 and unit 2. The licensee had committed to checking the UT recorder strip charts at thirty (30) minute intervals as delineated in his response to IE Bulletin 80-17 Supplement 1 dated August 18, 1980. The inspector's review of the UT recorder strip chart paper at 10:45 a.m. indicated that the 11:00 a.m. reading was initialed, which is ahead of the recorder strip chart ink-pen tracing.

Additional inspections were made on October 6, and the inspector observed that: (1) The 2:30 p.m. UT recorder strip chart reading for the west side SDVH for unit 1 and unit 3 had not been initialed for the 2:30 p.m. reading at 2:30 p.m. nor at 2:40 p.m. (2) The UT recorder strip chart for the



west side SDVH for unit 3 was reviewed at 2:50 p.m. and the strip chart paper was initialed for the 2:30 p.m. reading and also for the 3:00 p.m. reading. The inspector noted that the 3:00 p.m. reading was initialed approximately one half inch ahead of the ink pen tracing, which is approximately 8 minutes worth of time.

The inspector discussed his concerns and findings with plant management and the NRC Region II office on October 8, 1980. On October 9, 1980 the NRC Region II office issued a Confirmation of Action letter to TVA confirming those actions that TVA management will take to resolve problems with monitoring for water in the SDVH. The results of TVA's investigation and planned corrective actions were discussed at the Systematic Assessment of Licensee Performance meeting in TVA's Corporate offices on October 23, 1980.

Subsequent to the meeting with TVA an NRC inspector on October 26, 1980 found that the UT recorder strip chart readings were not being taken at the required time intervals. The discussion of these findings are provided in Details 2 of this report.

The problems with monitoring for water in the SDVH at specified time intervals was the subject of a "Notice of Deviation" in Inspection Report 50-259/80-34, 50-260/80-27 and 50-296/80-28 dated October 9, 1980. The continuing problems in monitoring the SDVH for water at specified time intervals collectively constitutes ineffective corrective actions (Appendix B, Criterion XVI) to preclude recurrence. This is an Infraction (259/80-40-01; 296/80-34-01).

The plant superintendent issued an instructional letter on July 18, 1980 requiring the SDVH water levels to be monitored every 30 minutes and documented on the strip chart. Subsequently Operating Instruction 85 was issued to clarify the duties and responsibilities of the operator and his supervisor assigned to the monitoring of water level in the SDHV.

6. Refueling Operations (Unit 2)

During core verification, it was noted by plant personnel checking the core verification tapes, that four fuel assemblies were not seated in a control cell. An attempt was made to seat the fuel assemblies properly lifting the fuel assemblies up slightly and setting them back down. This procedure reseated one fuel assembly but did not seat the other three.

On October 4, 1980, the four fuel assemblies were removed to check the fuel support piece. In order to have access to the fuel support piece for the video camera, four fuel assemblies in an adjacent fuel cell and a peripheral fuel assembly also had to be removed.

By observing the fuel support piece with the camera, it was determined that the anti-rotation pin which comes up from the core plate was not in the slot of the fuel support piece. The fuel support piece was



actually resting on the anti-rotation pin, cocking the support piece upward, about an inch. The review of records and video tapes determined that this support piece could have been in this condition since 1975, recognizing that early video tapes lacked the quality of more recent ones. Analysis by TVA and General Electric have shown that there was no detrimental effects to the fuel assemblies by having the support piece cocked.

Special Test Instruction 187, (STI-187) Inspection of Orificed Fuel Support Piece, was reviewed and approved by the Plant Operations Review Committee (PORC), for the inspection and reseating of the fuel support piece. The procedure called for installing jumpers on two control rods (CR-58-19 and S4-19) which would then allow the refueling bridge to be moved across the top of the core with the two rods withdrawn. The fuel was removed from two cells and their respective control rods withdrawn to allow access to the fuel support pieces.

After reseating the fuel support piece and prior to inserting the two control rods and reloading of the removed fuel assemblies a weekly Surveillance Instruction (SI), 4.10.A.1, Refueling Interlocks, was performed. This SI requires that all control rods be inserted. This SI was performed with the two control rods withdrawn and no indication that a change to the SI had been issued to allow the control rods to be withdrawn during its performance. This was identified to the Plant Manager on October 16, 1980, as an apparent item of noncompliance, failure to follow a PORC approved procedure as required by Technical Specification 6.3.A (260/80-35-01)

Upon completion of SI 4.10.A.1, one control rod (CR-58-19) was inserted and the fuel assemblies around that rod were loaded into the core with an adjacent rod still withdrawn. This was reported to the inspectors by the licensee. Failure to have all rods inserted into the core is contrary to Technical Specification 3.1.0.A.2 which states that fuel shall not be loaded into the reactor core unless all control rods are fully inserted. This was identified as an apparent item of noncompliance to the Plant Manager on October 16, 1980. (260/80-35-02)

A refueling interlock which prevents the movement of the refueling bridge over the core when a control rod is not fully inserted, prevents the loading of fuel when a control rod is withdrawn. STI-187 installed a jumper in the control rod circuitry for CR-54-19 to defeat this interlock. This allowed the bridge to move over the core for work on the fuel support piece, however; STI-187 did not address when the jumper would have to be removed. Technical Specification 3.10.A.1 states that during core alteration, the refueling interlocks shall be operable. Failure to have all refueling interlocks operable during core alteration was identified to the Plant Manager as an apparent item of noncompliance on October 16, 1980. (260/80-35-03)



Plant Management objected to the above three items of noncompliance because they felt the incident of loading fuel with a control rod withdrawn was attributed only to an inadequate procedure (STI-187).

7. Reportable Occurances

The below listed licensee event reports (LER's) were reviewed to determine if the information provided met NRC reporting requirements. The determination included adequacy of event description and corrective action taken or planned, existence of potential generic problems and the relative safety significance of each event. Additional inplant reviews and discussion with plant personnel as appropriate were conducted for those reports indicated by an asterisk.

LER NO.	DATE	EVENTS
* 259-8023	4-8-80	HPCI high level water trip Inop
* 259-8034	5-19-80	Failure of RWCU Valves
259-8042	6-10-80	CS room cooler had no flow
* 259-8043	5-23-80	1A RHR heat exchanger had leak
259-8045	6-27-80	CS PS-75-44 setpoint drifted
259-8059	9-4-80	Athens 161-KV line tripped
* 259-8070	10-01-80	Fuel assembly mis-orientated
* 260-8035	9-12-80	2D RHR Heat Exchange Rod suspected leak
* 260-8037	9-26-80	Two fuel assemblies mis-orientation
260-8038	10-7-80	FCV 2-73-609 failed local leak rate test
* 260-8041	10-5-80	Loading of fuel with one control out

8. Plant Physical Protection

During the course of routine inspection activities, the inspectors made observations of certain plant physical protection activities. These included personnel badging, personnel search and escort, vehicle search and escort, communications and vital area access control.

No items of noncompliance or deviations were identified within the areas inspected.

9. Reactor Trips

The inspectors reviewed activities associated with the below listed reactor trip during this report period. The review included determination of cause, safety significance performance of personnel and systems, and corrective action. The inspectors examined instrument recordings, computer printouts, operations journal entries, scram reports and had discussions with operations, maintenance and engineering support personnel as appropriate.

On 10/3/80 Unit 1 tripped at 1:26 p.m. from full power due to a turbine trip. An instrument mechanic jarred the level switch on the turbine bearing oil tanks. He was supposed to be performing a check on Unit 2 and had gone to the wrong location. Several main steam relief valves



lifted. The reactor protection system and control rod drive system performed satisfactorily. No emergency core cooling systems initiated.

10. Maintenance Observation

On September 24, 1980, plant management informed the resident inspectors of a settling problem with Unit 3 reactor ventilation supply building. The building had settled approximately seven inches creating vent duct misalignment and pulling several non-safety related electrical conduits from the foundation. This problem had been identified for some time by personnel within TVA but was not brought to plant management attention until September 23, 1980. The settling of the ventilation building affected no safety related equipment.

On October 8, 1980, TVA Engineering Design (EN DES) inspected the Residual Heat Removal Service Water (RHRSW) piping tunnel which runs under the ventilation building and found that the floor of the tunnels had settled up to 14 inches. The more significant settling appeared to be in the Unit 3 east tunnel. (two tunnels per unit, East and West).

An inspector inspected all six tunnels and observed the following:

- a. Unit 1 East and West tunnel - no significant problems. Minimal settling of about one half inch.
- b. Unit 2 East and West tunnel - floors had settled approximately 7 inches, but no seismic brackets foundation bolts were pulled from the foundation pad.
- c. Unit 3 East and West tunnel - severe settling in both tunnels up to 14 inches. The Unit 3 East tunnel was found to have several seismic foundation bolts pulled from the foundation. The seismic bracket has four bolts which are suppose to be mounted into the foundation pad; however, two bolts were instead mounted into the concrete floor that settled. The foundation pads did not settle because they are mounted on bed rock.

On October 11, 1980, TVA informed the NRC that the analysis on the damaged restraints showed that the restraints would still be operable under a design bases earthquake according to current licensees guidlines. Repairs to all six tunnels were immediately initiated to provide additional support to the seismic restraints by means of a brace bolted to the seismic pads. This additional support was completed on all tunnels on October 17, 1980. The inspectors followed the progress of the work closely. EN DES has not completed their evaluation of cable supports in the tunnels which was of less concern than the piping supports.

No other settling problems were identified by TVA other than those mentioned above. TVA plans are to establish a monitoring program for potential settlement problems.



11. Radiological Emergency Drill

On October 2, 1980, a radiological emergency drill was held at Browns Ferry. The drill consisted of evacuation and the accountability of plant personnel. The inspectors observed the drill from the control room and the reactor building and had no comments.

12. Residual Heat Removal Heat Exchangers

The RHR heat exchangers at this facility have had a history of developing gasket leaks on the inner floating head. The problem is due to loosening of nuts on the floating head which TVA concluded was caused by vibration during operation of the system. The addition of a half nut to prevent loosening was not successful. A program of routine leak testing of the heat exchangers has identified leaking gaskets prior to placing the system in shutdown cooling but this has only been an interim measure since the possibility of releasing radioactive water to the river remained.

A program to install newly designed locking tabs on the head nuts began in September of this year. By the end of this report period four of the twelve heat exchangers have been modified to include the new locking tabs. The current schedule calls for all the heat exchangers to be modified by mid-January 1981. So far there has not been sufficient experience to determine the effectiveness of the modification. The inspectors will continue to follow the performance of the heat exchangers.



IE Report Nos. 50-259/80-40,
50-260/80-35, 50-296/80-34

DETAILS II

Prepared by:

J. L. Williams
for R. J. Marsh, Regional Investigator
Office of the Director

1-9-81
Date

Dates of Inquiry: October 27-28, 1980

Reviewed by:

Carl E. Alderson
Carl E. Alderson, Senior Regional
Investigator
Office of the Director

1-9-81
Date

1. Persons Contacted

Tennessee Valley Authority

- *H. L. Abercrombie, Plant Manager, Browns Ferry
- *W. E. Brown, Shift Engineer
- *F. A. Szczepanski, Supervisor, Nuclear Safety Review Board Staff
- *T. Galbreath, Member, Nuclear Safety Review Board Staff
- *S. R. Bustion, II, Attorney, General Counsel's Office
- One Auxiliary Unit Operator and one Contractor HP Technician (NUMANCO)

U.S. Nuclear Regulatory Commission

R. F. Sullivan, Senior Resident Inspector
J. W. Chase, Resident Inspector
J. M. Pucket, Radiation Specialist

*attended exit meeting

2. Reason for Inquiry and Scope

An inquiry was conducted at the Tennessee Valley Authority's Browns Ferry Nuclear Plant during the period October 27-28, 1980 regarding observations of an NRC inspector on October 26, 1980 of what he believed to be possible falsification of records relating to the scram discharge header volume and the failure to perform required surveillance on a safety related system. The inquiry consisted of meetings with licensee plant and corporate representatives; interviews of the Auxiliary Unit Operator (AUO) (subject of the allegation); review of pertinent documentary records and direct observation of the physical area involved. The inquiry involved 16 hours of investigative effort.



3. Observations By The NRC Inspector

The Regional Investigator arrived in Decatur, Alabama on October 26, 1980 to conduct an investigation of a separate and distinctly different matter at the Browns Ferry Nuclear Plant the following day. The investigator contacted an NRC inspector, who was at the site in connection with an ongoing radiation safety appraisal in, to coordinate the anticipated investigative effort of the following day and was, at that time, advised of the inspector's identification of a possible falsification of records. The records involved were recording charts (strip charts) associated with the monitoring, by ultrasonic measurement, of water accumulation in the scram discharge header, a safety related system. The inspector provided the following description of his observations to the investigator:

At about 5:00 a.m. October 26, 1980, he went to the Unit 1 Reactor Building, 565' elevation, near the East scram discharge header. While he was examining the SWP for entry into the associated high radiation area (SWP No. 01-1-08227) he noted that it required persons entering the area to carry a dose rate instrument. While standing there (the time was 5:15 a.m.) an operator came up, signed in on the SWP, and entered the high radiation area. He did not take an instrument with him into the area. The inspector subsequently measured dose rates up to 280 millirem per hour in the area the operator traversed. The inspector chose not to confront the operator at the time because he wanted to see how widespread this practice was.

The inspector next went to the Unit 3 Reactor Building 565' elevation, to look at the scram discharge header UT instrumentation installed there. The inspector discovered the operator responsible for taking the recorder strip chart readings to be seated in a chair with his head down on the desk where the instruments were located. The inspector took time to measure the dose rate in the area with his NRC survey instrument, then left to seek a witness and a better instrument.

The inspector went to the Unit 2 drywell control point and asked one of the individuals there if he was a Health Physicist. The individual said yes. The inspector also asked if he might borrow an RA-2, a more accurate ion chamber instrument. The inspector showed his inspector's identification and asked the HP to accompany him to verify the dose rate to the sleeping individual. When they entered the area the individual was still asleep. The inspector measured the dose rate with the RA-2 as 2.0 millirem per hour and had the HP verify it. The inspector then decided to leave before the individual awoke. The HP went with the inspector and when they were far enough away to avoid awakening the sleeper by their conversation, the inspector suggested that the HP return and awaken the man.



The inspector then proceeded to Unit 1, 565' elevation, and climbed a set of stairs which allowed him to observe the scram discharge header instrumentation for the westernmost set of accumulators on Unit 1. By his watch, he observed this area from 5:30 a.m. to 6:20 a.m. At 5:40 a.m. the individual he had observed sleeping earlier came to the chart recorder and marked something on the chart. No other person came into the area up to the time the inspector left his observation point at 6:20 a.m. According to the inspector the view was quite good, and he was certain that no one could have entered the area and written on the chart without being observed by him.

In explanation the inspector stated he was not watching to determine if the charts and surveillance were being properly maintained, rather he was observing a high radiation area that was immediately adjacent to the chart recorder table to see if individuals were using dose rate instruments for entry. It was only during the time he was sitting there that it occurred to him that he hadn't seen the chart updated or read in more than thirty minutes.

The inspector left the area at 6:20 a.m., but returned at 6:50 a.m., and checked the chart and found the times and initials noted on it were as follows:

0532
0600
0626.

The inspector reiterated that he was observing the recorder from 5:30 a.m. to 6:20 a.m. and during that time the only person entering the area did so at 5:40 by his watch.

4. Meeting With Senior Resident Inspector

On October 27, 1980 an inquiry was initiated regarding this matter. The Regional Investigator discussed this matter with the Senior Resident Inspector at the Browns Ferry Nuclear Plant and was made aware of two previous instances of similar nature concerning questionable sign-offs by Auxiliary Unit Operators (AUO's). This inquiry was, however, limited to the specifics of the October 26 incident.

5. Entrance Briefing

An entrance briefing was conducted on October 27, 1980 and the purpose and scope of this inquiry was discussed with the BFNP Plant Manager. During the entrance briefing the Regional Investigator was requested by the Plant Manager to delay interviews of the TVA personnel involved in the incident until that evening. The Plant Manager stated that representatives of TVA's Nuclear Safety Review Board Staff and TVA's General Counsel's office were enroute to the



site and desired to meet with the Regional Investigator prior to his conducting interviews. The Regional Investigator agreed to delay his interviews and requested that documentary records pertinent to the event be provided for his review.

During the evening of October 26, 1980 a meeting was conducted with the TVA corporate representatives and "ground-rules" for the interview of the AUO (subject of the allegation) were agreed upon. Since interviews of the subject AUO had already been conducted by plant management after receiving notification of the incident from NRC Region II representatives on the day of its occurrence Sunday, October 26, 1980, the investigator consented to a "roundtable" interview with TVA personnel participating. The meeting with the AUO was conducted late in the evening of October 27, 1980 as discussed in Paragraph 7 below.

6. Interview of Contract Health Physics Technician

The health physics technician contacted by the NRC inspector when the AUO was found asleep was interviewed regarding his knowledge of the subject events. His recollections were in agreement with those presented by the NRC inspector. When asked if he felt that the AUO had been asleep, the HP technician stated only what he observed and declined to draw a conclusion. He stated he viewed the subject AUO only from a distance, but noted that the individual had his head down on his arms and, further, that the AUO made no movements or utterances while he (the technician) was in the area.

Since no specific NRC requirement addressing the degree of alertness required of an individual performing in the capacity of an assistant unit operator was identified, the investigator did not pursue this matter further with the HP technician.

7. Interview of Auxiliary Unit Operator

The AUO (subject of the allegation) was "interviewed" as part of a group discussion attended by the NRC investigator, the involved NRC inspector, BFNP management, TVA Nuclear Safety Review Board Staff members, and a representative of TVA's legal staff.

The AUO strongly denied any wrong doing and was insistent that the required checks of the scram discharge header volumes were performed in a proper and timely manner. He indicated he had suffered with a severe headache on the night of the event and had been resting (but awake) when the NRC inspector had been in his area. He stated he was aware of the presence of the two individuals (NRC inspector and the HP technician), but did not choose to acknowledge their presence since they said nothing to him. However, he made no mention of an awareness of the NRC inspector's initial trip through his area which occurred prior to the inspector's return trip with the HP

technician and a survey instrument. According to the NRC inspector's statement, it was during this initial observation that he examined the AUO close enough to copy down the AUO's name and TLD number from the identification badge and dosimeter which the AUO was wearing.

Regarding the required sign off of the recorder chart, the AUO professed that all required checks had been properly made.

The AUO was requested to provide a written statement of his version of the events of the evening in question. Due to the late hour the AUO agreed to provide the written statement to the NRC investigator the next morning. On the next day, immediately prior to the investigator's scheduled exit meeting, the plant manager handed the investigator a one page statement bearing the AUO's name. When the investigator questioned the format as being different from that agreed upon he was advised that the AUO had discussed his proposed written statement with the TVA representatives that morning (October 28, 1980) and the statement being offered was a product of that meeting. In view of the voluntary status of the offered statement, it was accepted and is offered as Exhibit 1 to this report.

8. Tour of Areas Where Recorders Were Located

A tour of the area in which the subject chart recorders are located was accomplished by the investigator. The NRC inspector indicated the location from which he had made his observations and TVA representatives conducted a walk-through re-enactment. The investigator estimated a proper re-enactment of the required actions would place the AUO in the NRC inspector's view for a 5 to 10 second period. It was the conclusion of the investigator that the presence of an individual in the field of view of a person observing the area with no other personnel present for that period of time would have been highly visible to the observer.

9. Other Investigative Effort

Attempts to locate additional witnesses or records to support either the NRC inspector's position or that of the Auxiliary Unit Operator proved unsuccessful. Licensee management offered records generated by the access Control System (card key) as evidence to show the AUO's presence in the subject area at the times indicated on the scram discharge volume recorder, but these were found by the investigator to be inconclusive due to the subjectively established transit time from the nearest controlled access door to the recorder and a lack of knowledge by both the investigator and the licensee of the accuracy of times indicated by the access control computer printout which precluded any sort of correlation to the NRC inspector's watch and/or the AUO's watch.



10. Conclusions

With the exception of the denial by the AUO, who had a vested interest in the outcome of the inquiry, the inquiry did not disclose any factual information to support a conclusion that the NRC inspector's observations and his interpretation of those observations were incorrect. In the absence of information to the contrary, it is concluded that during the fifty minute period (5:30 a.m. - 6:20 a.m.) that the inspector observed the recorder the only entry into the area by the AUO occurred at 5:40 a.m. by the inspector's watch and the required surveillance was not performed during the forty minute period from 5:40 a.m. to 6:20 a.m. Whether the "6:00 a.m." entry made by the AUO resulted from a time difference between the AUO's and inspector's watches, whether it was entered in error, or was the result of an intentional act to coverup a missed reading could not be positively determined. The compliance aspects of failure to take this reading is further discussed in Details I of this report.

