

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

April 6, 1981

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

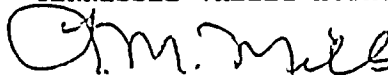
Dear Mr. O'Reilly:

This is in response to R. C. Lewis' March 10, 1981, letter to H. G. Parris, Report Nos. 50-259/81-03, -260/81-03, and -296/81-03, concerning activities at the Browns Ferry Nuclear Plant which appeared to violate NRC requirements. Enclosed is our response to Appendix A Notice of Violation. If you have any questions, please call Jim Domer at FTS 857-2014.

To the best of my knowledge, I declare the statements contained herein are complete and true.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure

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ENCLOSURE
RESPONSE R. C. LEWIS' MARCH 10, 1981, LETTER
TO H. G. PARRIS
BROWNS FERRY NUCLEAR PLANT
50-259/81-03, 50-260/81-03, AND 50-296/81-03

Item A

Technical Specification 3.7.C.1 requires that secondary containment integrity shall be maintained in the reactor zone at all times if primary containment is not being maintained.

Contrary to the above, Technical Specification 3.7.C.1 requiring secondary containment integrity to be maintained was not met in that on January 8, 1981, the inspector observed both airlock doors for unit 3 open at the same time while primary containment was not being maintained.

This is a Severity Level IV Violation (Supplement I.D.2) applicable to unit 3.

Admission or Denial of the Alleged Violation

TVA admits to the violation.

Reasons for the Violation if Admitted

The condition arose out of the failure of individual craftsmen to read information signs posted in the area.

Corrective Steps Which Have Been Taken and Results Achieved

Personnel using the airlock were briefed on the incident shortly after their supervisors were made aware of the problem. Information concerning the proper use of airlocks was published in the Outage Safety Awareness Bulletin, and all craft foremen were briefed on the importance of observing the information signs posted in various areas of the plant.

Corrective Steps Which Will Be Taken to Avoid Further Violation

A design change request has been written to provide interlocks on the airlock doors, and is being expedited to prevent recurrence of the subject incident. In addition, as an interim measure, a door watch has been posted in the equipment airlocks.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved with the installation of the interlocks on the doors, which is expected to be completed by May 22, 1981. This schedule is subject to change dependent upon equipment delivery, engineering, and craft work loads.

Item B

10 CFR 50, Appendix B Criterion IX and Topical Report TVA-TR75-1, paragraph 17.2.9 requires in part that special processes, including welding shall be accomplished by qualified personnel.

Contrary to the above, 10 CFR 50 Appendix B Criterion IX and Topical Report TVA-TR75-1 which requires welding to be accomplished by qualified personnel was not met in that on January 15, 1981, safety-related welding was performed on workplan 7779R1, Installing of Hydrogen-Oxygen Monitoring Panel, in which the qualifications of the welder could not be determined.

This is a Severity Level V Violation (Supplement II.E.1) applicable to unit 3.

Admission or Denial of the Alleged Violation

TVA denies that a violation occurred. The subject workplan has been reviewed, and it has been verified that a list of welders performing work was included. Certification of all welders on the list has been confirmed.

Item C

Technical Specification 6.3.A.7 requires that radiation control procedures shall be adhered to. Radiological Control Instruction-1 (RCI) requires that all items being released to a clean zone shall be surveyed by Health Physics.

Contrary to the above, on January 29, 1981, the licensee determined that RCI-1 was not adhered to in that: 1. A ladder was found discarded in a clean area with contamination levels of 15,000 dpm direct and 2,000 dpm smearable. 2. Metal scaffolding was found in a clean area of the plant with contamination levels of 800 dpm direct.

This is a Severity Level V Violation (Supplement IV.E.2).

Admission or Denial of the Alleged Violations

TVA admits to the violation.

Reasons for the Violation if Admitted

An investigation revealed that contaminated-scaffolding was being transported from the west side of the plant to the east side. The carpenter foreman collected scaffolding in unit 3 turbine building, transported it to the shop area, loaded it on a truck and then requested a survey by the health physics section. The foreman had misunderstood the requirements for handling and surveying contaminated material.

The source of the ladder could not be positively determined nor the personnel responsible.

Corrective Steps Which Have Been Taken and the Results Achieved

A Radiological Incident Report was completed and charged to the carpenter foreman with overall responsibility. He was sent through health physics retraining and verbally warned about the severity of the incident.

A memorandum was issued to all personnel directing that all equipment and material exiting the regulated zone must be surveyed by health physics before exiting.

All outage personnel involved in the transportation of material from the plant to other areas have been briefed through the Outage Safety Awareness Bulletin and the foremen's meetings on the importance of following procedures.

Corrective Steps Which Will Be Taken to Avoid Further Violations

The periodic health physics retraining program will include in the presentation emphasis on the requirements involved in transporting items from a regulated zone to a clean zone.

Date When Full Compliance Will Be Achieved

Full compliance was achieved with issuance of the memorandum to all personnel dated March 5, 1981.

Item D

Technical Specification 6.3.A.7 requires that detailed written procedures shall be adhered to for radiation control procedures. Radiological Control Instruction-10 requires that an individual or group of individuals working in a high radiation area shall have a dose rate meter for monitoring radiation levels.

Contrary to the above, on January 14, 1981, Radiological Control Instruction-10 was not adhered to in that four personnel were observed working in a high radiation area without a dose rate meter.

This is a Severity Level V Violation (Supplement IV.E.2) applicable to unit 3.

Admission or Denial of the Alleged Violation

TVA admits to the violation.

Reason for the Violation if Admitted

The Special Work Permit (SWP) indicated that a dose rate instrument was required. The individuals performing the work left their dose rate instrument on the step-off pad at the west control rod drive header when they moved to the east control rod drive header. This incident was the result of an individual's oversight and is not indicative of a weakness in the health physics program.

Corrective Steps Which Have Been Taken and the Results Achieved

The individuals involved have been counseled concerning their responsibilities to follow the requirements on a special work permit.

Corrective Steps Which Will Be Taken to Avoid Further Violations

The individuals were advised that disciplinary action will be taken if similar incidents occur.

Date When Full Compliance Will Be Achieved

Full compliance was achieved on January 14, 1981, when a dose rate meter was immediately provided after becoming aware of the situation and when the individuals involved were counseled.

Item E

10 CFR 19.12 requires that all individuals working in any portion of a restricted area shall be kept informed of the radiation in such portions of the restricted area.

Contrary to the above, on January 15, 1981, 10 CFR 19.12 requiring workers to be informed of radiation in the portions of the restricted area they are in was not met in that personnel were allowed to enter a high radiation area on a Special Work Permit (SWP) which stated that the general area radiation levels were 40 mrem/hr when they were actually 60 mrem/hr to 150 mrem/hr.

This is a Severity Level V Violation (Supplement IV.E.2) applicable to unit 3.

Admission or Denial of the Alleged Violation

TVA admits to the violation.

Reasons for the Violations if Admitted

The opinion of the health physics technician who determined dose rates for the work area was that the work could be accomplished without workmen having to enter the high radiation area near the higher radiation source. We consider this incident to be the result of an error in judgment on the part of one individual and does not indicate a weakness in the health physics program.

Corrective Steps Which Have Been Taken and the Results Achieved

The health physics technician involved was employed by a company contracted by TVA to provide health physics services. The technician was counseled concerning recurrence of this type of incident. In addition, a letter was forwarded to his employer relating his actions which resulted in this violation, and stated that his actions would be closely monitored by TVA health physics personnel for the remainder of his tenure.

Corrective Steps Which Will Be Taken to Avoid Further Violations

We have advised all health physics personnel of the incident and gravity of this type of incident.

Date When Full Compliance Will Be Achieved

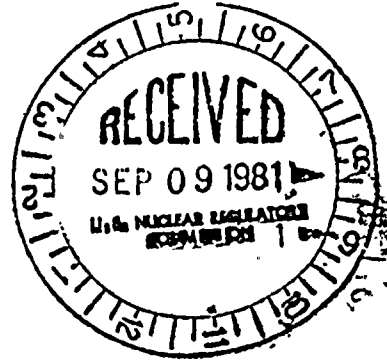
Full compliance was achieved on January 15, 1981, when proper action was taken to comply to the requirements commensurate with a high radiation zone and when the contract health physics technician was counseled.

Yellow

AUG 18 1981

Tennessee Valley Authority
ATTN: Mr. H. G. Parris
Manager of Power
500A Chestnut Street Tower II
Chattanooga, TN 37401

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Gentlemen:

Subject: Report No. 50-259/81-23 50-260/81-23 and 50-296/81-23

This refers to the routine safety inspection conducted by Mr. W. H. Miller, Jr., of this office on August 4-7, 1981, of activities authorized by NRC Operating License Nos. DPR-33, DPR-55 and DPR-68 for the Browns Ferry facility and to the discussion of our findings held with Mr. H. L. Abercrombie, Plant Superintendent, at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no violations or deviations were disclosed.

We have examined actions you have taken with regard to previously identified enforcement matters and unresolved items. The status of these items is discussed in the enclosed report.

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter and the enclosed report will be placed in the NRC's Public Document Room. If the report contains any information that you believe to be exempt from disclosure under 10 CFR 9.5(a)(4), it is necessary that you: (a) notify this office by telephone within ten days from the date of this letter of your intention to file a request for withholding; and (b) submit within twenty-five days from the date of this letter a written application to this office to withhold such information. If your receipt of this letter has been delayed such that less than seven days are available for your review, please notify this office promptly so that a new due date may be established. Consistent with section 2.790(b)(1), such application must be accompanied by an affidavit executed by the owner of the information which identifies the document or part thereof sought to be withheld, and a full statement of the reasons on the basis of which it is claimed that the information should be withheld from public disclosure. This section further requires the statement to address with specificity the considerations listed in 10 CFR 2.790(b)(4). The information sought to be withheld shall be incorporated as far as possible into a separate part of the affidavit. If we do not hear from you in this regard within the specified periods noted above, the report will be placed in the Public Document Room.

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AUG 18 1981

Should you have any questions concerning this letter, we will be glad to discuss them with you.

Sincerely,

RS

R. C. Lewis, Director
Division of Resident and
Reactor Project Inspection

Enclosure:
Inspection Report Nos. 50-259/81-23,
50-260/81-23 and 50-296/81-23

cc w/encl:
H. J. Green, Director of Nuclear Power
H. L. Abercrombie, Plant Superintendent
R. E. Rogers, Project Engineer
H. N. Culver, Chief, Nuclear Safety
Review Staff

bcc w/encl:
NRC Resident Inspector
Document Management Branch
State of Tennessee

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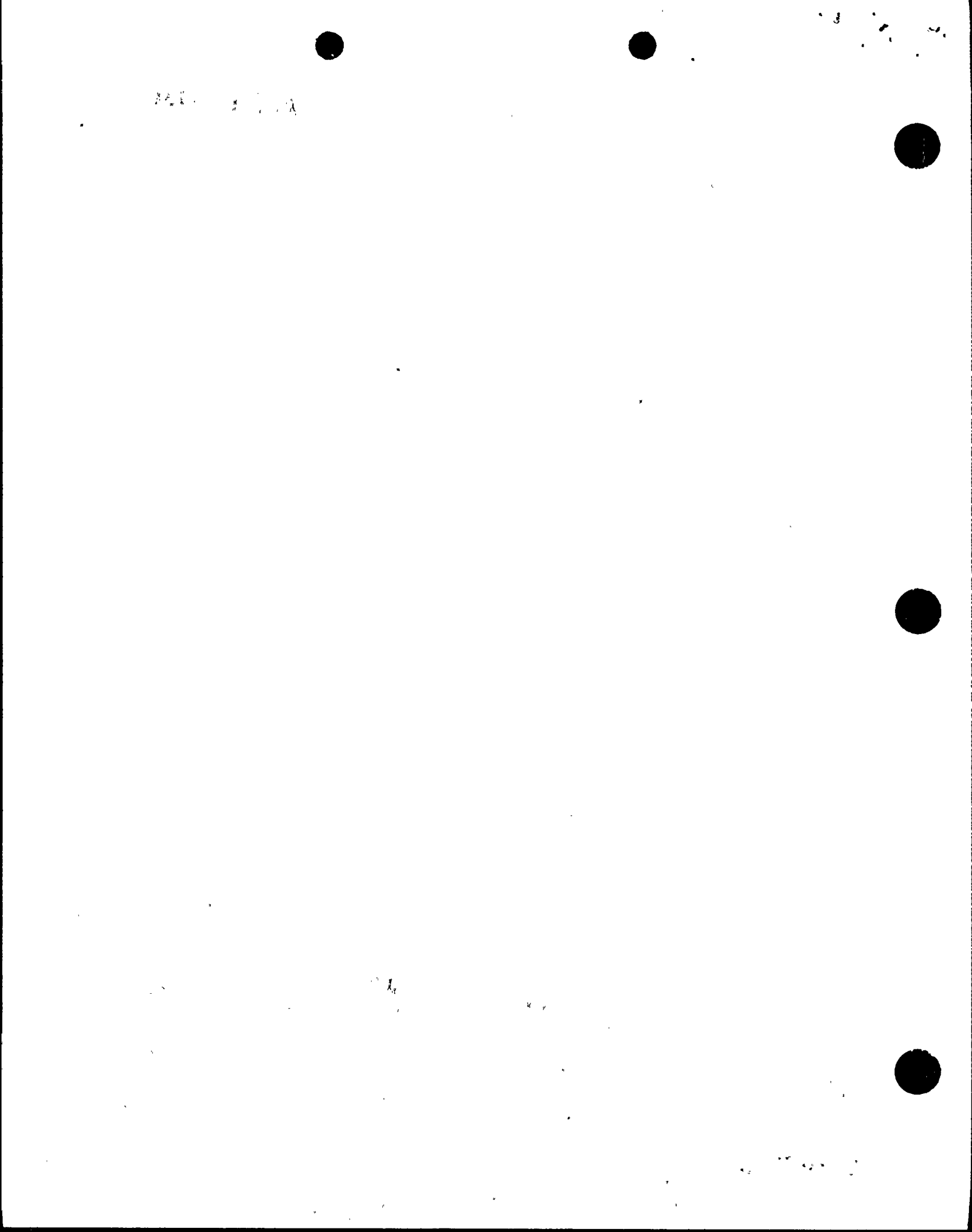
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CEMurphy
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AFGibson
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FCantrell
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RII *N*
RCLewis
8/18/81





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

AUG 18 1981

Report No. 50-259/81-23, 50-260/81-23, 50-296/81-23

Licensee: Tennessee Valley Authority

Facility Name: Browns Ferry

Docket No. 50-259, 50-260, 50-296

License No. DPR-33, DPR-55 and DPR-68

Inspection at Browns Ferry Site near Decatur, Alabama

Inspector: W. H. Miller, Jr. For

8/14/81
Date Signed

Approved by: T. E. Conlon For
T. E. Conlon, Section Chief
Engineering Inspection Branch
Engineering and Technical Inspection Division

8/14/81
Date Signed

SUMMARY

Inspection on August 4-7, 1981

Areas Inspected

This routine, unannounced inspection involved 30 inspector-hours onsite in the areas of fire protection/prevention.

Results

Of the areas inspected, no violations or deviations were identified.

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

*H. J. Abercrombie, Plant Superintendent
J. L. Harness, Assistant Plant Superintendent
*Joe D. Ferguson, Assistant Outage Director
*R. Hunkapillar, Assistant Operations Supervisor
*R. Cole, QA
*J. R. Norris, QA
*R. Phifer, Safety Supervisor
*T. Keckeisen, Fire Protection Engineer
*R. E. Thompson, Supervisor Fire Protection Engineering/Chattanooga
*T. L. Chinn, Compliance Staff Supervisor
W. Percle, Outage-Electrical
T. Marshal, Outage-Electrical
T. Childers, Outage
J. M. Price, Training Officer
E. G. Thornton, Training Officer/Operations

NRC Resident Inspector

*R. F. Sullivan

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on August 7, 1981 with those persons indicated in paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

- a. (Closed) Unresolved Item (259/77-23-10, 260/77-23-10 and 296/77-23-10)-Completion of general fire prevention training for all employees: All employees receive a course in general safety and fire prevention prior to receiving a plant security badge. Employee retraining is conducted quarterly through the general safety meetings. The inspector reviewed approximately 100 training records and verified that the required training was being conducted. This item is closed.
- b. (Closed) Violation Item (259/81-01-01, 260/81-01-01 and 296/81-01-01)-Sprinkler system not provided for the intake pumping station: An automatic preaction sprinkler system has been provided for this cable tunnel area beneath the RHR service water pumps. This system does not fully conform to the provisions of NFPA-13, Automatic Sprinkler Systems, in that the sprinkler piping system is not supervised as required by Section 5-3.5.204 NFPA-13. However, the licensee is not committed to this code. Therefore, this item is closed.

- c. (Closed) Violation Item (259/81-01-02, 260/81-01-02 and 296/81-01-02)-Fire suppression systems for cable spreading rooms do not conform to license conditions: The licensee requested by letter from L. M. Mills, TVA to H. R. Denton, NRR dated March 4, 1981, that the facility operating licenses be revised to make the automatic water spray system for the cable spreading rooms the primary extinguishing system and the manual carbon dioxide system the secondary system. A reply to this request has not been received. Furthermore, this item was reduced from a violation to an unresolved item by NRC's letter from V. Stello, NRC/IE to W. F. Willis, TVA dated June 3, 1981. This item is to remain open pending revisions to the operating license.
- d. (Open) Unresolved Item (259/81-01-03, 260/81-01-03 and 296/81-01-03)-Combustible ceiling in control rooms: A design charge request (DCR No. 2454) has been issued to replace this ceiling with a noncombustible type ceiling. Most of the ceiling material will be replaced upon receipt of the new ceiling material. The ceiling directly over the control panels is to be replaced when the units are shut down. The completion schedule of this modification as listed in a letter from L. M. Mills, TVA to R. L. Tedesco, NRR of May 22, 1981 as follows: Unit 1 May 1983, Unit 2 July 1982 and Unit 3 January 1982.
- e. (Closed) Violation Item (259/81-01-04, 260/81-01-04 and 296/81-01-04)-Substandard fire barrier enclosures for battery rooms: The fire doors into the battery rooms contain louvered openings which are provided with fire dampers. All duct penetrations into each battery unit complex have been equipped with fire dampers. This item is closed.
- f. (Open) Deviation Item (259/81-01-05, 260/81-01-05 and 296/81-01-05)-Use of unapproved automatically activated deluge valves in the HVAC fire protection sprinkler system: The licensee has issued a design change request (DCR No. P 2424) to replace these valves with standard fire protection valves; however, the schedule date of completion has not been established.
- g. (Open) Violation Item (259/81-01-06, 260/81-01-06 and 296/81-01-06)-Failure to follow the fire protection procedures: This violation contained two examples, the status of which are as follows:
 - (1) Fire Brigade Drills: Between February 6, through March 2, 1981 all fire brigade members participated in at least one fire brigade drill. The inspector reviewed the drill and verified that the make up drill and the normal scheduled first and second quarter drills were conducted. This item is closed.
 - (2) Uncoated Cables: The licensee has committed to coat all uncoated cables prior to the end of the Unit 1 refueling outage which is scheduled for September 6, 1981. This item remains open.
- h. (Closed) Violation Item (259/81-01-07, 260/81-01-07 and



296/81-01-07)-Nonfunctional fire doors: The licensee has issued procedures MMI-116, Semi-annual Maintenance of Fire Doors, and SIL 23, Daily Fire Door Inspection which requires semi-annual maintenance inspection for all fire doors and requires all fire doors to be visually inspected daily by the safety group. These procedures should help assure that all fire doors will be functional. This item is closed.

- i. (Closed) Deviation Item (259/81-01-08, 260/81-01-08 and 296/81-01-08)-Failure to complete fire door modifications: All of the required fire doors have been installed. This item is closed.
- j. (Open) Unresolved Item (259/81-01-09, 260/81-01-09 and 296/81-01-09)-Corrective action to be taken on Triennial Fire Protection Audit. Most of the maintenance and procedure change items in the audit have been corrected. Items which require design changes or plant modifications have been forwarded to ENDES for review. This item remains open and will be reviewed during a subsequent NRC inspection.
- k. (Closed) Violation Item (259/81-01-10, 260/81-01-10 and 296/81-01-10)-Failure to determine operability of fire pump A during October 1980. The licensee has revised the surveillance inspection schedule to require the electric driven fire pumps to be tested on Wednesday during the day shifts and the diesel engine to be tested on Tuesday during the evening shift. The schedule should assure that each pump will be tested at the required frequency. The test and inspection records from January through July 1981 were reviewed by the inspector and it was verified that the pumps were being tested at the specified frequency. This item is closed.
- l. (Closed) Unresolved Item (259/81-01-11, 260/81-01-11 and 296/81-01-11)-Fire brigade training records not available on site: The licensee has consolidated all of the fire brigade training records into files maintained by the operations training group. The inspector reviewed the fire brigade training records for 6 fire brigade members and 5 fire brigade team leaders (assistant shift engineers) and verified that the training records were on file. This item is closed.
- m. (Closed) Violation Item (259/81-01-12, 260/81-01-12 and 296/81-01-12)-Failure to provide adequate fire watch while CO2 system was out of service. The licensee has revised procedure BF14.16, Fire Watch, to require that the fire watch assigned to various areas of the plant, be assigned the required keys or card keys for access into the areas to be patrolled. Form BF.31, Removal of Fire Protection Systems from Service, has been revised to require that the areas to be covered by the fire watch to be listed. These changes should assure that adequate fire watches are provided in the future. This item is closed.
- n. (Closed) Deviation Item (259/81-01-13 and 260/81-01-13)-Improper hardware on a fire door between the electrical equipment rooms in the



Units 1 and 2 diesel generator building. Approved type hardware has been provided for this door. This item is closed.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Inspector Followup Items

a. Diesel Fire Pump

The control valve between the air release valve for the diesel fire pump and the pump discharge piping is maintained in the open position. Procedure SI 4.11.D, Fire Protection System Inspection, has been revised to indicate that this valve is to be maintained in the open position.

b. Outside Fire Protection Equipment Houses

Procedure MMI63, Fire Hose, Cabinets, Reels and Cart Inspection, has been revised to require a monthly inspection of the equipment within the equipment houses. The licensee has evaluated the equipment required for these houses and determined that, in addition to the hose cart and wheeled fire extinguisher, only minimum equipment is required to be maintained since a standard well equipped fire department pumper is maintained on site for response to fires as needed.

c. Administrative Fire Protection Procedures

Procedure BF14.47, Fire Training, has been revised to require each fire brigade member to pass an annual physical for performance of strenuous fire fighting activities, and brigade members to participate in quarterly classes training and fire drills.

d. Fire Pumps

Procedure SI4.11.A.1.6.b., High Pressure Fire Protection System Fire Pump Operability Check has been revised to require the electric pump to be test run for at least 15 minutes. Procedure SI4.11.A.1.b.(a), High Pressure Fire Protection Diesel Driven Fire Pump Operability Check, has been revised to require the diesel pump to be test operated for at least 30 minutes and indicates acceptance and rejection criteria.

6. Fire Protection/Prevention Program Implementation

a. Facility Tour and Observation of Work Activities

The inspector made a tour of the plant to review the corrective action taken on previous identified enforcement items, unresolved items and inspector followup items as identified in Paragraphs 3 and 5. During



this tour the inspector verified that the licensee was adhering to the procedures for the control of combustible materials, flammable and combustible liquids and gases, welding and cutting operations and housekeeping operations. All of fire alarm and suppression systems covered by the Technical Specifications were inspected and verified to be in service.

b. Fire Brigade Equipment

The fire brigade is assigned a total of 11 self contained breathing apparatus and 20 spare cylinders. A total of 21 units (7 per control room) and 21 spare cylinders are located in the control room complex. Additional units and spare cylinders are available from the health physics group, if needed. A total of 75 units and 190 cylinders are provided at the site. The cylinder can be refilled by means of a compressor or from two cascade systems. The number of self contained breathing apparatus and spare cylinders exceeds the requirements of the Technical Specifications.

A total of 15 sets of fire fighting gear (coats, pants, boots and helmets) is provided for the brigade members. This equipment appeared to be maintained in a satisfactory manner.

Within the areas examined no violations or deviations were detected.

