

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323



Report Nos.: 50-259/91-19, 50-260/91-19, and 50-296/91-19

Licensee: Tennessee Valley Authority
6N 38A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Docket Nos.: 50-259, 50-260 and 50-296 License Nos.: DPR-33, DPR-52,
and DPR-68

Facility Name: Browns Ferry 1, 2, and 3

Inspection Conducted: April 30 - May 3, 1991

Inspector: David Thompson 7-3-91
OR Orysia M. Masnyk, Safeguards Inspector Date Signed

Approved by: William J. Lotz 7-3-91
David R. McGuire, Chief Date Signed
Safeguards Section
Nuclear Materials Safety and Safeguards
Division of Radiation Safety and Safeguards

SUMMARY

Scope:

This special, announced inspection was conducted to review the medical examination and physical fitness performance testing of security personnel.

Results:

In the areas inspected, violations were not identified.

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *A. K. Brittain, Assistant Site Security Manager
- *P. C. Hamilton, Fitness for Duty Coordinator
- *J. A. Jenkins, Nuclear Training Coordinator
- *R. Merier, Manager, Clinical Support Technician
- *S. D. Moss, Human Resource Officer
- *P. L. Reynolds, Employee Relations Manager
- *S. Rudge, Site Programs/Support Manager
- *P. Salas, Compliance Licensing Manager
- *J. Wallace, Site Licensing Engineer
- *O. Zeringue, Vice President, Browns Ferry Operations

NRC Resident Inspector

- *C. Patterson, Senior Resident Inspector

*Attended exit interview

2. This inspection reviewed the fact that several members of the security force believed that medical conditions became evident following both the medical exam and the physical fitness test that would have precluded the officer from performing the fitness test. They felt that they should wait until after the results of laboratory work were received to perform their test.

10 CFR 73.55 Appendix B(I)(C) requires "Guards, armed response personnel, armed escorts and other armed security force members shall be given a medical examination including a determination and written certification by a licensed physician that there are no medical contraindications, as disclosed by the medical examination that would prevent participation by the individual in physical fitness tests."

The licensee's Training and Qualification Plan, Section 1.3, states, "Subject to a prior medical examination including a determination and written certification by a licensed physician that there are no medical contraindications to participation by the individual as disclosed by the medical examination, armed personnel shall demonstrate their physical fitness for assigned security job duties by performing a practical physical exercise program within a specified time period."

These requirements are accomplished at Browns Ferry by a medical doctor subjecting the security officers to an examination as described in the Medical Examiner's Guide Sections VI.50, VII.2.0, and V.9.0. These Sections delineate requirements for Nuclear Security Officers

specifically, "Individuals classified as Nuclear Security Armed Response Personnel shall be medically approved to attempt the following on-the-job physical fitness exercises.

- a. Negotiate eight (8) flights of stairs (10 stairs per flight)
- b. 100 yard dash with approximately twenty (20) pounds of weight
- c. Run one-half mile within a five-minute time period
- d. Drag approximately two hundred (200) pounds for 30 feet

The above exercises must be completed within a 30-minute time period."

The procedure caveats, "It is important to note that the medical examiner is not expected to predict whether or not the applicant can successfully pass the tests during training. A candidate who has a health impairment which would preclude participation in such training would be classed as medically not approved for such duty."

Based on discussion with the medical staff and review of records it was determined that a medical exam consists of a medical history, hearing and sight tests, vital signs and a physical examination by a doctor. Some officers, based on age and/or preset schedule are subject to chest X-ray and electrocardiogram (EKG). All officers provide blood and urine specimens for chemistry and hematology profiles.

In practice, on the night before a physical exam, the officer fasts after midnight, comes to the medical station to provide specimens and completes the physical examination. After performing the exam and reviewing the chest X-ray and EKG if available, the doctor completes the form certifying the officer as ready to perform a physical fitness test or places the officer on medical restriction. The doctor does not have the results of the chemistry and hematology profiles at this time. These specimens and the chest X-rays and EKGs are sent to the corporate medical officers for processing. That same day the security officer performs the physical agility test.

The inspector was advised that several officers following this test received information that would have precluded them from performing the agility test. After questioning approximately 30 officers, medical office staff members, and reviewing records, the inspector could not substantiate the claim.

Recently, following the agility test, an officer died that same day. The TVA physician stated that nothing in his physical exam, or in a previous exam given by the individual's personal physician, which included a stress test, precluded his performing the test. The doctor further stated that there was no information to be gained from the chemistry or hematology profiles which would influence his decision as to the performance of the physical fitness test.



Following discussions with the licensee and review by Regional management it was determined that there were no concerns with the licensee's practice in this area.

3. Exit Interview

The inspection scope and results were summarized on May 3, 1991, with those persons indicated in paragraph 1. The inspector described the areas inspected and discussed in detail the inspection results.