



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

June 11, 1985

Docket Nos: 50-327
and 50-328

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

Dear Mr. Parris:

Subject: Issuance of Amendment No. 38 to Facility Operating License
No. DPR-77 and Amendment No. 30 to Facility Operating
License No. DPR-79 - Sequoyah Nuclear Plant, Units 1 and 2

The Nuclear Regulatory Commission has issued the enclosed Amendment No.38 to Facility Operating License No. DPR-77 and Amendment No.30 to Facility Operating License No. DPR-79.

The amendments change the license conditions related to the Physical Security Plan. The amendments are in response to your letters dated June 13, 1984, and March 27, 1985.

A copy of the related safety evaluation supporting Amendment No.38 to Facility Operating License DPR-77 and Amendment No. 30 to Facility Operating License DPR-79 is enclosed.

Sincerely,

for Elinor G. Adensam
Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

Enclosures:

1. Amendment No. 38 to DPR-77
2. Amendment No. 30 to DPR-79
3. Safety Evaluation

cc w/enclosures:
See next page

EXHIBIT ORIGINAL

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June , 1985

AMENDMENT NO. 38 TO FACILITY OPERATING LICENSE NO. DPR-77 - Sequoyah Nuclear Plant
AMENDMENT NO. 30 TO FACILITY OPERATING LICENSE NO. DPR-79 - Sequoyah Nuclear Plant

DISTRIBUTION w/enclosures:

✓ Docket No. 50-327/328

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SEQUOYAH

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

SEQUOYAH NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 38
License No. DPR-77

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Sequoyah Nuclear Plant, Unit 1 (the facility) Facility Operating License No. DPR-77 filed by the Tennessee Valley Authority (licensee), dated June 13, 1984, as amended March 27, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the license, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, Facility Operating License No. DPR-77 is changed as follows:
 - A. Change paragraph 2.E. to read as follows:

Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans, including all amendments and revisions made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p) which are part of the license. These plans, which contain safeguards information protected under 10 CFR 73.21, are entitled:

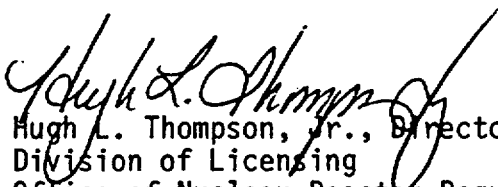
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"Sequoyah Nuclear Plant Physical Security Plan," and "Sequoyah Nuclear Plant Security Personnel Training and Qualification Plan." The Sequoyah Nuclear Plant Safeguards Contingency Plan is integrated into the physical Security Plan.

The compensatory measures described in the plan shall remain in effect until the licensee is notified by the NRC that these measures can be removed. The licensee shall provide operational and test data for the perimeter intrusion detector system, as described in the TVA letter of May 29, 1985, on a monthly basis with the completion of this effort to occur on or before April 1986.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Hugh L. Thompson, Jr., Director
Division of Licensing
Office of Nuclear Reactor Regulation

Date of Issuance: June 11, 1985



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-328

SEQUOYAH NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 30
License No. DPR-79

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Sequoyah Nuclear Plant, Unit 2 (the facility) Facility Operating License No. DPR-79 filed by the Tennessee Valley Authority (licensee), dated June 13, 1984, as amended March 27, 1985, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the license, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, Facility Operating License No. DPR-79 is changed as follows:
 - A. Change paragraph 2.E. to read as follows:

Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans, including all amendments and revisions made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p) which are part of the license. These plans, which contain safeguards information protected under 10 CFR 73.21, are entitled:

"Sequoyah Nuclear Plant Physical Security Plan," and "Sequoyah Nuclear Plant Security Personnel Training and Qualification Plan." The Sequoyah Nuclear Plant Safeguards Contingency Plan is integrated into the Physical Security Plan.

The compensatory measures described in the plan shall remain in effect until the licensee is notified by the NRC that these measures can be removed. The licensee shall provide operational and test data for the perimeter intrusion detector system, as described in the TVA letter of May 29, 1985, on a monthly basis with the completion of this effort to occur on or before April 1986.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


Hugh L. Thompson, Jr., Director
Division of Licensing
Office of Nuclear Reactor Regulation

Date of Issuance: June 11, 1985



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 38 TO FACILITY OPERATING LICENSE DPR-77
AND AMENDMENT NO. 30 TO FACILITY OPERATING LICENSE DPR-79
TENNESSEE VALLEY AUTHORITY

INTRODUCTION

The Tennessee Valley Authority (the licensee) has filed with the Nuclear Regulatory Commission a request to amend Facility Operating Licenses DPR-77 and DPR-79. The amendment would approve a revision to the licensee's physical security plan entitled, "Sequoyah Nuclear Plant Physical Security Plan."

DISCUSSION

By letters dated June 13 and October 2, 1984, and March 11 and March 27, 1985, the licensee submitted for staff review a revision to the Sequoyah Nuclear Plant Physical Security Plan involving a major reduction in the size of the site's protected area. The stated purposes for the change are (i) to shorten the length of the perimeter boundary required to be alarmed and monitored, and (ii) to exclude from the protected area plant workers who normally do not have a need for access to safety-related equipment.

10 CFR 73.55 requires that vital equipment be located within a vital area which, in turn, has to be located within a protected area so that access to the vital equipment requires the passage through at least two physical barriers. The physical barrier at the perimeter of the protected area is to be provided with isolation zones on both sides and a means for detecting unauthorized penetrations. Other than as stated above, there are no requirements or guidance relative to the size of a protected area or the extent to which non-vital equipment should or should not be within the protected boundary. The currently-approved plan for Sequoyah has included, in the protected area, all vital equipment and, in addition, many electrical, mechanical and administrative activities that are not safety-related.

The licensee is proposing to reduce the size of the protected area so as to encompass only the power block and the emergency diesel buildings and to exclude the turbine and administration buildings, the 161 KV and 500 KV switchyards, warehouses, the main pumping station, and the area between the reactor buildings and the emergency raw cooling water (ERCW) pumping station. The proposal also includes replacing the existing perimeter intrusion detection system with a combination of fence disturbance detectors and manned guard towers located along the protected area fence line.

EVALUATION

None of the buildings, areas or activities excluded from the protected area contain vital equipment (the ERCW pumping station will be located within a

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separate protected area). The shortening of the alarmed perimeter (by more than 1/2) should facilitate assessment of and response to intrusion alarms or attempted intrusions. Similarly, the reduction in the size of the protected area (by about 2/3) should reduce the effort needed to effectively monitor the exterior areas as required by regulations. On the other hand, the distance between the protected and vital area barriers is now shorter, thereby placing additional demands on the armed response force's capability to interdict penetrations of the perimeter. This need has been satisfied to some extent by the tactical placement of the manned guard towers. There is also an indirect benefit to be gained from the fewer number of alarmed zones being employed that should result in correspondingly fewer zones being out-of-service from equipment malfunction.

The licensee also states that the number of workers permitted access into the protected area would be significantly reduced. It is not clear what safeguards benefit this would have since in either case access to vital equipment would be limited to individuals having a work-related need.

Excluding the turbine building from the protected area results in the perimeter line coinciding with the interface between the control and turbine buildings (inside the structures). In this plane a Seismic Category I interior wall performs the function of both a protected and vital area barrier. This is permitted by 10 CFR 73.55(a) since the penetration resistance of a reinforced concrete, seismically designed wall is considered to equal or exceed that intended by the dual barrier requirements of the regulations. At this location detection of penetration is provided by routine surveillance measures that would detect activity long before a break could be effected. Openings through this common barrier leading into a vital area are double-barriered and double-alarmed electronically.

Part 73 does not address protection requirements for vital intake structures, such as the Sequoyah ERCW pumping station, located apart from the main reactor complex. Staff practice, which has been applied in the past at several other facilities, requires an alarmed protected area barrier (except that Seismic I reinforced concrete walls are permitted to serve as a dual barrier), increased hardening of access doors leading into the structure, a means for immediate, remote alarm assessment, special procedures for work-related access, and in certain instances depending on local conditions an armed response force stationed at the main site but dedicated to the protection of the intake structure. The licensee's proposal contains all of these elements. The staff finds this to be acceptable.

The proposed perimeter intrusion detection system as described in the licensee's letter dated June 13, 1984, has not been approved by the staff since guidance published in Regulatory Guide 5.44 does not permit the use of fence disturbance

sensors as primary intrusion detectors, and the licensee has not provided data that demonstrate the effectiveness of the conjoined system. By letter dated March 27, 1985, the licensee has agreed to apply approved compensatory measures to make the system acceptable to the staff. Because the March 27, 1985, letter revised the original request, a notice was published in the Federal Register on April 26, 1985, describing the changes. The licensee has agreed to provide additional operational and test data to support their initial proposal of June 13, 1984, for the perimeter intrusion detection system. The staff will evaluate these data and those from other sources to determine the adequacy of the initially proposed system. If the staff determines that the data justify the use of the system as proposed, it will so advise the licensee and allow the licensee to remove the compensatory measures. If the staff determines that the data do not justify the use of the system as proposed, it will so advise the licensee and require the licensee to provide an acceptable system.

The staff concludes that the revised security plan with the approved compensatory measures as discussed above continues to satisfy the requirements of 10 CFR 73.55.

ENVIRONMENTAL CONSIDERATION

These amendments relate solely to safeguards matters and do not involve any significant construction impacts. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(12). Pursuant to 10 CFR 50.22(b), no environmental assessment need be prepared in connection with the issuance of the amendments.

CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register (49 FR 36947) on September 20, 1984, and (50 FR 16574) on April 26, 1985, and consulted with the state of Tennessee. No public comments were received, and the state of Tennessee did not have any comments.

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: E. McPeck, Standardization & Special Projects Branch, DL
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Dated: June 11, 1985