Distribution: J. Roe Docket NRC PDR C. Parrish OCTOBER 2 4 1980 M. Williams Local PDR 0ELD ORB Reading NRR Reading OI&E(3)Docket No. 50-272 H. R. Denton B. Jones (4/8) ACRS (16) E. G. Case R. Hartfield, MPA OPA (Clare Miles) G. Bennington, MPA NSIC Mr. F. P. Librizzi, General Manager D. Eisenhut TERA Electric Production Secretariat (SECY) R. Purple Production Department Public Service Electric and Gas Company. Novak R. Diggs R. Tedesco J. Heltemes, AEOD 80 Park Plaza - 15A Project Manager G. Lainas Newark, New Jersey 07101 S. Varga

Dear Mr. Librizzi:

SUBJECT: ORDER FOR MODIFICATION OF LICENSE CONCERNING ENVIRONMENTAL QUALIFICATION OF SAFETY-RELATED ELECTRICAL EQUIPMENT

Ref. (a) Commission Memorandum and Order of May 23, 1980 (80-CLI-21) Ref. (b) Inspection and Enforcement Bulletin Supplement No. 2 to IEB-79-01B, September 30, 1980.

This letter transmits an Order for Modification of License which changes the Technical Specifications for Salem Nuclear Generating Station, Unit No. 1. This change is a result of Ref. (a) which required the staff to codify the documentation requirements for the qualification of safety-related electrical equipment. A copy of the Order is being filed with the Office of the Federal Register for publication.

The deadline of November 1, 1980 for submittal of the qualification information is not changed by this Order. Some additional information regarding the file is contained in Ref. (b). Questions regarding this Order should be directed through your Project Manager.

Sincerely,

Original Signed By

Steven A. Varga, Chief Operating Reactors Branch #1 Division of Licensing

Enclosure: Order

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cc: w/enclosure See Next Page

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

October 24, 1980

Docket No. 50-272

Mr. F. P. Librizzi, General Manager Electric Production Production Department Public Service Electric and Gas Company 80 Park Plaza - 15A Newark, New Jersey 07101

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Steven A. Varga, Chief Operating Reactors Branch #1 Division of Licensing

Enclosure: Order

cc: w/enclosure See Next Page Mr. F. P. Librizzi
Public Service Electric and Gas Company - 2 - October 24, 1980

cc: Mark J. Wetterhahn, Esquire Conner, Moore and Corber Suite 1050 1747 Pennsylvania Avenue, NW Washington, D. C. 20006

Richard Fryling, Jr., Esquire
Assistant General Solicitor
Public Service Electric and Gas Company
80 Park Place
Newark, New Jersey 07101

Gene Fisher, Bureau of Chief Bureau of Radiation Protection 380 Scotch Road Trenton, New Jersey 08628

Mr. Hank Micura, Manager Salem Nuclear Generating Station Public Service Electric and Gas Company 80 Park Place Newark, New Jersey 07101

Salem Free Library 112 West Broadway Salem, New Jersey 08079

Leif J. Norrholm, Resident Inspector Salem Nuclear Generating Station U. S. Nuclear Regulatory Commission Drawer I Hancocks Bridge, New Jersey 08038

Attorney General Department of Law and Public Safety State House Annex Trenton, New Jersey 08625

Samuel E. Donelson, Mayor Lower Alloways Creek Township Municipal Hall Hancocks Bridge, New Jersey 08038 Richard B. McGlynn, Commissioner Department of Public Utilities State of New Jersey 101 Commerce Street Newark, New Jersey 07102

Deputy Attorney General State House Annex State of New Jersey 36 West State Street Trenton, New Jersey 08625

Director, Technical Assessment Division Office of Radiation Programs (AW-459) U. S. Environmental Protection Agency Crystal Mall #2 Arlington, Virginia 20460

U. S. Environmental Protection Agency Region II Office ATTN: EIS COORDINATOR 26 Federal Plaza New York, New York 10007

Mr. E. N. Schwalje, Manager of Quality Assurance Public Service Electric and Gas Company 80 Park Place Newark, New Jersey 07101

Mr. R. L. Mittl, General Manager Licensing and Environment Public Service Electric and Gas Company 80 Park Place Newark, New Jersey 07101

Peter A. Moeller Nuclear Licensing Engineer Public Service Electric and Gas Company 80 Park Plaza - 15A Newark, New Jersey 07101

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

In the Matter of
PUBLIC SERVICE ELECTRIC AND GAS
COMPANY
(Salem Nuclear Generating Station,
Unit No. 1)

Docket No. 50-272

ORDER FOR MODIFICATION OF LICENSE

I.

Public Service Electric and Gas Company (the licensee) is the holder of Facility Operating License No. DPR-70 which authorizes the operation of the Salem Nuclear Generating Station, Unit No. 1 at steady state reactor power levels not in excess of 3338 megawatts thermal (rated power). The facility consists of a pressurized water reactor located at the licensee's site in Salem County, New Jersey.

II.

On November 4, 1977, the Union of Concerned Scientists (UCS) filed with the Commission a "Petition for Emergency and Remedial Relief." The petition sought action in two areas: fire protection for electrical cables, and environmental qualification of electrical components. By Memorandum and Order dated April 13, 1978 (7 NRC 400), the Commission denied certain aspects of the petition and, with respect to other aspects, ordered the NRC staff to take several related actions. UCS filed a Petition for Reconsideration on May 2, 1978. By Memorandum and Order, dated May 23, 1980, the Commission reaffirmed its April 13, 1978 decision regarding the possible shutdown of operating reactors. However, the Commission's May 23, 1980 decision directed licensees and the NRC staff to undertake certain actions.

With respect to environmental qualification of safety-related electrical equipment, the Commission determined that the provisions of the two staff documents - the Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors" (DOR Guidelines) and NUREG-0588, "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment, December 1979 (copies attached) "form the requirements which licensees and applicants must meet in order to satisfy those aspects of 10 CFR Part 50, Appendix A General Design Criterion (GDC-4), which relate to environmental qualifications of safety-related electrical equipment." The Commission directed, for replacement parts in operating plants, "unless there are sound reasons to the contrary, the 1974 standard in NUREG-0588 will apply." The Commission also directed the staff to complete its review of the information sought from licensees by Bulletin 79-01B and to complete its review of environmental qualification of safety-related electrical equipment in all operating plants, including the publication of Safety Evaluation Reports, by February 1, 1981. The Commission imposed a deadline that, "by no later than June 30, 1982 all safety-related electrical equipment in all operating plants shall be qualified to the DOR Guidelines or NUREG-0588."

Bulletin 79-01B was not sent to licensees for plants under review as part of the staff's Systematic Evaluation Program. The information sought by Bulletin 79-01B was requested from these licensees by a series of letters and meetings during the months of February and March, 1980.

The Commission requested the staff to, "keep the Commission and the public apprised of any further findings of incomplete environmental qualification of safety-related electrical equipment, along with corrective actions taken or planned," and requested the staff to provide bi-monthly progress reports to the Commission.

The Commission further directed that, "In order to leave no room for doubt on this issue, the staff is to prepare additional Technical Specifications for all operating plants which codify the documentation requirement paragraph of the Guidelines (paragraph 8.0)." The staff was directed to add these documentation requirements to each license after they were approved by the Commission.

The Commission also pointed out that the various deadlines imposed in its Order, "do not excuse a licensee from the obligation to modify or replace inadequate equipment promptly."

III.

The Commission has approved the Technical Specification provisions set forth in Section IV below which specify documentation requirements and which specifically impose on the licensee the requirement of the Commission's May 23, 1980 Memorandum and Order that by no later than June 30, 1982 all safety-related electrical equipment shall be qualified to the DOR Guidelines or NUREG-0588.

The information developed during the Commission review of the UCS Petition emphasizes the importance of prompt completion of the upgrading of

environmental qualification of safety-related electrical equipment to conform to the DOR Guidelines or NUREG-0588 and of adequate documentation of equipment qualifications. The deadlines set forth in the Commission's Memorandum and Order dated May 23, 1980, assure that such upgrading will be accomplished promptly. In order to assure prompt completion of necessary qualification work or replacement of unqualified components, if necessary, in conformance with the requirements of the Commission's Memorandum and Order dated May 23, 1980, and to provide complete and adequate documentation as promptly as possible, such upgrading and documentation work must commence immediately. Therefore, I have concluded that the public health, safety and interest require this Order for Modification of License to be effective immediately.

IV.

Accordingly, pursuant to the Atomic Energy Act of 1954, as amended, and the Commission's Rules and Regulations in 10 CFR Parts 2 and 50, IT IS ORDERED THAT EFFECTIVE IMMEDIATELY Facility Operating License No. DPR-70 is hereby amended to add the following provisions to the Appendix A Technical Specifications.

(a) "By no later than June 30, 1982, all safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of: Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors" (DOR Guidelines); or, NUREG-0588, "Interim Staff Position on Environmental" Qualification of Safety-Related Electrical Equipment," December 1979. Copies of these documents are attached to Order for Modification of License No. DPR-70 dated October 24, 1980.

(b) "By no later than December 1, 1980, complete and auditible records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified."

To effectuate the foregoing, appropriate pages for incorporation into the Technical Specifications are attached to this Order.

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The licensee or any person whose interest may be affected by this Order may request a hearing within 20 days of the date of publication of this Order in the <u>Federal Register</u>. Any request for a hearing will not stay the effective date of this Order. Any request for a hearing shall be addressed to the Director, Office of Nuclear Reactor Regulation, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555. A copy of the request should also be sent to the Executive Legal Director, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, and to Mark J. Wetterhahn, Esquire, Conner, Moore and Corber, Suite 1050, 1747 Pennsylvania Avenue, N.W., Washington, D. C. 20006, attorney for the licensee.

If a hearing is held concerning this Order, the issues to be considered at the hearing shall be:

- a. whether the licensee should be required to have the environmental qualification records referred to in Section IV, above, available at a central location by no later than December 1, 1980; and
- b. whether all safety-related electrical equipment should be qualified as required in Section IV, above, by no later than June 30, 1982.

Operation of the facility on terms consistent with this Order is not stayed by the pendency of any proceedings on the Order.

FOR THE NUCLEAR REGULATORY COMMISSION

Darrell G. Lisenhut, Director

Division of Licensing

Office of Nuclear Reactor Regulation

Effective Date: October 24, 1980 Bethesda, Maryland

Attachments:

Technical Specification Pages

2. Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors

 NUREG-0588, Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment.

- c. Records of facility radiation and contamination surveys.
- d. Records of radiation exposure for all individuals entering radiation control areas.
- e. Records of gaseous and liquid radioactive material released to the environs.
- f. Records of transient or operational cycles for those facility components identified in Table 5.7-1.
- g. Records of training and qualification for current members of the plant staff.
- h. Records of in-service inspections performed pursuant to these Technical Specifications.
- i. Records of Quality Assurance activities required by the QA Manual.
- j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.
- k. Records of meetings of the SORC and the NRB.
- Records for Environmental Qualification which are covered under the provisions of paragraph 6.13.

6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

6.12 HIGH RADIATION AREA

- 6.12.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10 CFR Part 20:
 - a. A high radiation area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a High Radiation Area and entrance thereto shall be controlled by issuance of a Radiation Exposure Permit and any individual or group of individuals permitted to enter such areas shall be provided with a radiation monitoring device which continuously indicates the radiation dose rate in the area.

SALEM - UNIT 1

6-15 Order dated October 24, 1980

6.12 HIGH RADIATION AREA (Continued)

b. A high radiation area in which the intensity of radiation is greater than 1000 mrem/hr shall be subject to the provisions of 6.12.1.a, above, and in addition locked doors shall be provided to prevent unauthorized entry into such areas and the keys shall be maintained under the administrative control of the Shift Supervisor on duty.

6.13 ENVIRONMENTAL QUALIFICATION

- 6.13.1 By no later than June 30, 1982 all safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of: Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification of Class 1E Electrical Equipment in Operating Reactors" (DOR Guidelines); or, NUREG-0588 "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment," December 1979. Copies of these documents are attached to Order for Modification of License No. DPR-70 dated October 24, 1980.
- 6.13.2 By no later than December 1, 1980, complete and auditible records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified.