

OCT 24 1980

Docket No. 50-298

Mr. J. M. Pilant, Director
Licensing & Quality Assurance
Nebraska Public Power District
P. O. Box 499
Columbus, Nebraska 68601

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Dear Mr. Pilant:

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 Facility Operating License No. DPR-46 for the Cooper Nuclear Power Station. 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
T. A. Ippolito

Thomas A. Ippolito, Chief
Operating Reactors Branch #2
Division of Licensing

Enclosure:
Order

cc w/enclosure: See Next Page

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OFFICE	ORB #2	ORB #2	ORB #2	ORB #2	D:DL	
SURNAME	SNorris	VRooney:kf	TAippolito	MWilliams	DEisenhut	
DATE	10/24/80	10/24/80	10/24/80	10/24/80	10/24/80	

Mr. J. M. Pilant
Nebraska Public Power District

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October 24, 1980

cc:

Mr. G. D. Watson, General Counsel
Nebraska Public Power District
P. O. Box 499
Columbus, Nebraska 68601

Mr. Arthur C. Gehr, Attorney
Snell & Wilmer
3100 Valley Center
Phoenix, Arizona 85073

Cooper Nuclear Station
ATTN: Mr. L. Lessor
Station Superintendent
P. O. Box 98
Brownville, Nebraska 68321

Auburn Public Library
118 - 15th Street
Auburn, Nebraska 68305

Director
Nebraska Dept. of Environmental Control
P. O. Box 94877, State House Station
Lincoln, Nebraska 68509

Mr. William Siebert, Commissioner
Nemaha County Board of Commissioners
Nemaha County Courthouse
Auburn, Nebraska 68305

Director, Technical Assessment Division
Office of Radiation Programs (AW 459)
US EPA
Crystal Mall #2
Arlington, Virginia 20460

U. S. Environmental Protection Agency
Region VII
ATTN: EIS COORDINATOR
1735 Baltimore Avenue
Kansas City, Missouri 64108

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of
 NEBRASKA PUBLIC POWER DISTRICT
 (Cooper Nuclear Power Station)

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Docket No. 50-298

ORDER FOR MODIFICATION OF LICENSE

I.

The Nebraska Public Power District (licensee) is the holder of Facility Operating License No. DPR-46 which authorizes the operation of the Cooper Nuclear Power Station at steady state reactor power levels not in excess of 2381 megawatts thermal (rated power). The facility consists of a boiling water reactor located at the licensee's site in Nemaha County, Nebraska.

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.

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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 79-01B¹ 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."

¹

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.

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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

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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-46 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

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Qualification of Safety-Related Electrical Equipment," December 1979. Copies of these documents are attached to Order for Modification of License No. DPR-46 dated October 24, 1980.

- (b) "By no later than December 1, 1980, complete and auditable 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.

V

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 Federal Register. 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 Arthur C. Gehr, Attorney, Snell & Wilmer, 3100 Valley Center, Phoenix, Arizona 85073, attorney for the licensee.

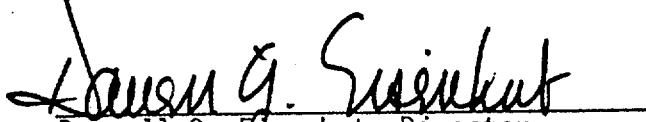
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If a hearing is held concerning this Order, the issues to be considered at the hearing shall be:

- 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. Eisenhower, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Effective Date: October 24, 1980
Bethesda, Maryland

Attachments:

1. Technical Specification Pages
2. Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors
3. NUREG-0588, Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment.

6.6 (cont'd.)

usage evaluation per the ASME Boiler and Pressure Vessel Code Section III was performed¹ for the conditions defined in the design specification. The locations to be monitored shall be:

- a. The feedwater nozzles
- b. The shell at or near the waterline
- c. The flange studs

2. Monitoring, Recording, Evaluating, and Reporting

- a. Operational transients that occur during plant operations will, at least semi-annually, be reviewed and compared to the transient conditions defined in the component stress report for the locations listed in 1 above, and used as a basis for the existing fatigue analysis.
- b. The number of transients which are comparable to or more severe than the transients evaluated in the stress report Code fatigue usage calculations will be recorded in an operating log book. For those transients which are more severe, available data, such as the metal and fluid temperatures, pressures, flow rates, and other conditions will be recorded in the log book.
- c. The number of transient events that exceed the design specification quantity and the number of transient events with a severity greater than that included in the existing Code fatigue usage calculations shall be added. When this sum exceeds the predicted number of design condition events by twenty-five², a fatigue usage evaluation of such events will be performed for the affected portion of the RCPB.

H. Records of individual plant staff members showing qualifications, training and retraining.

I. Records for Environmental Qualification which are covered under the provisions of paragraph 6.8.

6.6.3 Records and logs relating to the following items shall be kept for two years.

- A. The test results, in units of microcuries, for leak tests of sources performed pursuant to Specification 3.8.A.
- B. Records of annual physical inventories verifying accountability of the sources on record.

1. See paragraph N-415.2, ASME Section III, 1965 Edition.

2. The Code rules permit exclusion of twenty-five (25) stress cycles from secondary stress and fatigue usage evaluation. (See paragraphs N-412(t)(3) and N-417.10(f) of the Summer 1968 Addenda to ASME Section III, 1968 Edition.)

6.8 Environmental Qualification

- 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 DPR-46 dated October 24, 1980.
- B. By no later than December 1, 1980, complete and auditable 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.