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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

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Docket No. 50-298

EXEMPTION

I.

The Nebraska Public Power District (the licensee) is the holder of Facility Operating License No. DPR-46 (the licensee) which authorizes operation of the Cooper Nuclear Station located in Nemaha County, Nebraska, at steady state reactor core power levels not in excess of 2381 megawatts thermal (rated power). This license provides, among other things, that it is subject to all rules, regulations and Orders of the Commission now or hereafter in effect.

II.

Section 50.54(o) of 10 CFR Part 50 requires that primary reactor containments for water cooled power reactors be subject to the requirements of Appendix J to 10 CFR Part 50. Appendix J contains the leakage test requirements, schedules, and acceptance criteria for tests of the leak-tight integrity of the primary reactor containment and systems and components which penetrate the containment. Appendix J was published on February 14, 1973 and in August 1975; each licensee was requested to review the extent to which each facility met the requirements.

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On September 10, 1975 the licensee submitted its evaluation for the Cooper Nuclear Station. The submittal was supplemented by a letter on October 30, 1978. These submittals requested an exemption from the requirements of Appendix J pertaining to the containment airlock door testing interval and the test pressure. Since the licensee submitted its request, Section III.D.2 of Appendix J has been revised, effective October 22, 1980. The revised rule required testing of the airlocks as follows:

1. Every six months at a pressure of not less than Pa (and after periods when the airlock is opened and containment integrity is not required).
2. Within three days of opening (or every three days during periods of frequent opening) when containment integrity is required, at a pressure of Pa or at a reduced pressure as stated in the Technical Specifications.

The evaluation performed by our contractor, Franklin Research Center, concluded that the licensee's exemption request was not in conformance with the regulation and, therefore, was unacceptable. However, subsequent discussions with the licensee regarding test methodology and additional evaluation by us of airlock degradation causal factors and operating history have resulted in a reevaluation of our position. The staff agrees with the licensee that without this exemption from the Appendix J requirements, the plant would have to be shut down and the equipment hatch opened in order to install a strongback

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on the inner airlock door to perform the test, and subsequent door and hatch openings to remove it. This would result in an outage of several days for the licensee, the cost of replacement power to the public, and could subject operating personnel to additional radiation exposures. In addition, the additional openings of the equipment hatch and airlock provide additional opportunities for inadvertent seal degradation.

As a result, the staff has reevaluated the six-month test requirement and has developed a revised position which is believed to meet the objectives of Appendix J requirements for containment airlock door tests. This revised position still requires the containment airlock to be tested at six-month intervals at a pressure of Pa in accordance with Appendix J, except that this test interval may be extended up to the next refueling outage (up to a maximum interval between Pa tests of 24 months) if there have been no airlock openings since the last successful test at Pa. The intent of the Appendix J requirement is to assure that the airlock door seal integrity is maintained and no degradation has occurred as a result of opening of the airlock doors between testing intervals at Pa. Since there is an inadequate basis to conclude that no airlock seal degradation occurs if the airlock doors have not been opened between extended testing intervals at Pa, we believe that a reduced pressure test or testing between seals every six months should be performed to assure that the airlock door seal integrity is maintained between the extended testing intervals at Pa. We believe

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this position satisfies the objectives of the requirements. The licensee will be requested to propose appropriate modifications to the Technical Specifications.

Therefore, the exemption from the airlock testing frequency requirement of Appendix J requested by the licensee should be granted provided the licensee complies with the staff's revised position on airlock testing.

III.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, an exemption is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest. Therefore, the Commission hereby approves the following exemption request:

Exemption is granted from the requirements of Section III.D.2 of Appendix J pertaining to the test frequency for conducting Type B tests at six-months intervals at a test pressure of not less than Pa. The test interval may be extended to the next refueling outage, but in no case shall exceed 24 months from the last test at Pa, provided that there have been no airlock openings since the last successful test at Pa. A reduced pressure test or testing between seals every six months shall be preformed to assure that airlock door seal integrity is maintained between extended testing intervals at Pa.

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The NRC staff has determined that the granting of this exemption will not result in any significant environmental impact and that pursuant to 10 CFR 51.5(d)(4), an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with this action.

FOR THE NUCLEAR REGULATORY COMMISSION

for Darrell G. Eisenhut

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland
this 3rd day of September 1982.