

Docket No. 50-237
LS05-83-07-037

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July 21, 1983

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Mr. Dennis L. Farrar
Director of Nuclear Licensing
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

Dear Mr. Farrar:

SUBJECT: REQUEST FOR EXEMPTION FROM REQUIREMENTS OF APPENDIX J TO
10 CFR 50, SECTION IV.A

Dresden Nuclear Power Station, Unit No. 2

The Commission has issued an exemption to certain requirements of Appendix J to 10 CFR 50 in response to your letter dated July 20, 1983. The exemption pertains to Type A leak testing following containment boundary repairs.

In the July 20, 1983 letter Commonwealth Edison requested an exemption from 10 CFR Part 50, Appendix J, Section IV.A for the Dresden Nuclear Power Station, Unit No. 2 so that Type A leak test of the Dresden Unit 2 containment need not be performed following the repair, by welding, of a leak in the containment boundar

We have granted the enclosed exemption from the requirements of 10 CFR Part 50, Appendix J, Section IV.A to the extent that a Type A pressure test is not required for the weld repair performed on the expansion bellows for vacuum breaker 2-1601-32B on July 20, 1983. The bases for this action are included in the Exemption.

The Exemption is being forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by
Thomas V. Wambach

for Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

DL:DIR

Enclosure:
Exemption

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cc w/enclosure:

*SEE PREVIOUS INITIALS FOR CONCURRENCE

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Commonwealth Edison Company
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SUBJECT: REQUEST FOR EXEMPTION FROM REQUIREMENTS OF APPENDIX J TO
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In the July 20, 1983 letter Commonwealth Edison requested an exemption from 10 CFR Part 50, Appendix J, Section IV.A for the Dresden Nuclear Power Station, Unit No. 2 so that Type A leak test of the Dresden Unit 2 containment need not be performed following the repair, by welding, of a small leak in the containment boundary.

We have granted the enclosed exemption from the requirements of 10 CFR Part 50, Appendix J, Section IV.A to the extent that a Type A pressure test is not required for the weld repair performed on the expansion bellows for vacuum breaker 2-1601-32B on July 20, 1983. The bases for this action are included in the Exemption.

The Exemption is being forwarded to the Office of the Federal Register for publication.

Sincerely,

Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Enclosure:
Exemption

cc w/enclosure:
See next page

WB
[Stamp: ☒ SI: CSB]
W. Butler
7/21/83

J Scinto reviewed this package, which includes comments by him, and gave R. Gilbert his OK. However, he forgot to sign it. #5-7/21/83

OFFICE	DL: ORB #5	DL: ORB #5	OELD	DL: ORB #5	DL: AD/SA	DL: DIR	
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DATE	7/21/83	7/21/83	7/21/83	7/21/83	7/21/83	7/21/83	

Mr. Dennis L. Farrar

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July 21, 1983

cc
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Mr. Doug Scott
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Rural Route #1
Morris, Illinois 60450

U. S. Nuclear Regulatory Commission
Resident Inspectors Office
Dresden Station
RR #1
Morris, Illinois 60450

Chairman
Board of Supervisors of
Grundy County
Grundy County Courthouse
Morris, Illinois 60450

U. S. Environmental Protection Agency
Federal Activities Branch
Region V Office
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Chicago, Illinois 60604

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Nuclear Regulatory Commission, Region III
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Mr. Gary N. Wright, Manager
Nuclear Facility Safety
Illinois Department of Nuclear Safety
1035 Outer Park Drive, 5th Floor
Springfield, Illinois 62704

UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of

COMMONWEALTH EDISON COMPANY

(Dresden Nuclear Power Station,
Unit No. 2)

Docket No. 50-237

EXEMPTION

I.

Commonwealth Edison Company (CECo) (the licensee) is the holder of a Provisional Operating License No. DPR-19 which authorizes operating of the Dresden Nuclear Power Station, Unit No. 2 (the facility). This license provides, among other things, that the facility is subject to all rules, regulations and Orders of the Nuclear Regulatory Commission (the Commission) now or hereafter in effect.

The facility is a boiling water reactor located at the licensee's site in Grundy County, Illinois.

II.

By letter dated July 20, 1983, the Commonwealth Edison Company (CECo) requested an exemption from the requirements of Appendix J, 10 CFR 50, so that a Type A leak test of the Dresden Unit 2 containment need not be redone until the next scheduled test.

The re-test is required by Section IV A of Appendix J to 10 CFR 50 because a major repair had been made to a leak in the containment boundary. Since it is not possible to perform a local leak test at this location, a

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Type A test which involves pressurization of the entire containment would be required. The leak was through a 1/8 X 1/16 inch hole in a bellows located between the drywell wall and a vacuum breaker. The hole was inadvertently produced during some welding work nearby on July 19, 1983. The predicted leak rate from the hole at the design basis accident pressure of 48 psig was calculated to be 6.9 scfm.

The recent Type A test completed under the design basis accident pressure showed a measured containment integrated leak rate of 4.94 scfm. The additional leak rate introduced by the new hole would result in a total leak rate, at the design basis accident pressure, of 11.84 scfm which is less than the allowable limit of 13.7 scfm used for the design basis accident calculations. The staff finds the calculated leak rate from this hole to be reasonable. Although no limiting condition for operation was being exceeded, the unit was shutdown and the leak was repaired by welding and satisfactorily leak tested at a low pressure.

Information concerning the effect of the above repair on the bellows was furnished by CECo to the staff by telecon on July 20, 1983 and by letter dated July 21, 1983. The staff was informed that the bellows were designed to withstand 2000 full displacement cycles during their lifetime. A full displacement cycle is one in which the bellows moves from a resting state to full expansion capability. These bellows have, throughout the approximate 13 1/2 year operating period of Dresden Unit No. 2, been subjected to only one such cycle. In addition, although the effect of the above repair on the

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lifetime of the bellows is that the number of cycles that the bellows will endure before failure drops by 96%, i.e., to 4% of original, the bellows still can endure 80 such cycles before failure. Based on operating experience to date, the staff believes that a significant safety margin and operating lifetime still exists for the repaired bellows.

Accordingly, in view of the small leak rate that would result even if the entire weld were to fail during a design basis LOCA, i.e., offsite doses will be within the values previously analyzed and found acceptable and since the chance of failure of the bellows during the rest of this operating cycle is remote, the staff concludes that a temporary exemption from the requirements of Section IV A of Appendix J to 10 CFR 50 is justified and should be granted. However, because the repair has led to a considerable reduction in the "as installed" lifetime of the bellows, the staff concludes that an exemption is warranted only until the end of the next refueling outage. At that time, the required Type A tests should be carried out in accordance with Section IV.A of Appendix J to 10 CFR 50.

III.

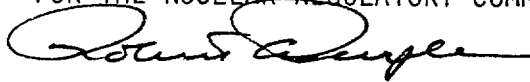
Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, this exemption is authorized by law and will not endanger life or property or the common defense and security, and is otherwise in the public interest, and hereby grants an exemption as described in Section II above from a portion of Section IV.A of Appendix J to the extent that a Type A pressure test is not required for the weld repair performed on the expansion bellows for vacuum breaker 2-1601-32B at Dresden Unit No. 2 on July 20, 1983.

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The Commission 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.

This Exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Purple, Deputy Director
Division of Licensing
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland
this 21 day of July 1983.