

July 21, 1988

Docket No. 50-249

Mr. Henry E. Bliss
Nuclear Licensing Manager
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

DISTRIBUTION

Docket file	LLuther
NRC & Local PDRs	MRing
PDIII-2 r/f	WForney
DCrutchfield	DMuller
GHolahan	BSiegel

Dear Mr. Bliss:

SUBJECT: REQUEST FOR A SCHEDULAR EXEMPTION FROM CERTAIN TYPE B&C TESTS FOR DRESDEN NUCLEAR POWER STATION, UNIT 3 (TAC NO. 66937)

On January 10, 1988, you submitted a request for a schedular exemption which would permit operation for 90 days before completing certain Appendix J Type B&C tests for the Dresden Nuclear Power Station Unit 3. In your submittal you provided the necessary information to support an exemption pursuant to 10 CFR 50.12. You also provided the necessary technical data on the penetrations that had been tested along with the history of the test on the remaining penetrations. Finally, by letter dated May 5, 1988, you provided the test data on the remaining penetrations.

On April 10, 1988, the 90-day period for which this exemption had been requested expired. On March 26, 1988, the shutdown of Unit 3 was commenced and Unit 3 has been in the refueling mode from that date until restart on June 25, 1988. Since all the required Appendix J Type B&C tests were completed prior to startup and the time period has passed, the Commission is denying this exemption request because the issue is moot. Although enforcement action may be considered for the time period you were in violation prior to the requested exemption, no enforcement action will be taken for the time period for which you requested this schedular exemption.

Prior to the denial of this exemption, the staff completed its technical review and a copy has been enclosed for your information. We also note that the leakage predictions regarding the penetrations for which the exemption was requested were substantiated in your submittal dated May 5, 1988.

Sincerely,

15/

8808040077 880724
PDR ADCK 05000249
P PDC

Dennis M. Crutchfield, Director
Division of Reactor Projects - III,
IV, V & Special Projects

Enclosure:
As stated

cc: See next page

*See previous concurrences

DFD
11
[Handwritten initials]

PDIII-2:PM	PDIII-2:LA	PDIII-2:AD	*OGC	AD DRSP	D/DRSP
*BSiegel	*LLuther	*DMuller		GHolahan	DCrutchfield
7/12/88	7/14/88	7/14/88	1 / 88	7/20/88	7/20/88

LSR

Docket No. 50-249

Mr. Henry E. Bliss
Nuclear Licensing Manager
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

DISTRIBUTION

Docket file	LLuther
NRC & Local PDRs	MRing
PDIII-2 r/f	WForney
DCrutchfield	DMuller
GHolahan	BSiegel

Dear Mr. Bliss:

SUBJECT: REQUEST FOR A SCHEDULAR EXEMPTION FROM CERTAIN TYPE B&C TESTS FOR
DRESDEN NUCLEAR POWER STATION, UNIT 3 (TAC NO. 66937)

On January 10, 1988 you submitted a request for a schedular exemption which would permit operation for 90 days before completing certain Appendix J Type B&C tests for the Dresden Nuclear Power Station Unit 3. In your submittal you provided the necessary information to support an exemption pursuant to 10 CFR 50.12. You also provided the necessary technical data on the penetrations that had been tested along with the history of the test on the remaining penetrations. Finally, by letter dated May 5, 1988, you provided the test data on the remaining penetrations.

On April 10, 1988, the 90-day period for which this exemption had been requested expired. On March 26, 1988, the shutdown of Unit 3 was commenced and Unit 3 has been in the refueling mode from that date until restart on June 25, 1988. Since all the required Appendix J Type B&C tests were completed prior to startup and the time period has passed, the Commission is denying this exemption request because the issue is moot. Although enforcement action may be considered for the time period you were in violation prior to the requested exemption, no enforcement action will be taken for the time period for which you requested this schedular exemption.

Prior to the denial of this exemption, the staff completed its technical review and a copy has been enclosed for your information. We also note that the leakage predictions regarding the penetrations for which the exemption was requested were substantiated in your submittal dated May 5, 1988.

Sincerely,

Dennis M. Crutchfield, Director
Division of Reactor Projects - III,
IV, V & Special Projects

Enclosure:
As stated

cc: See next page

*See previous concurrences

PDIII-2:PM	PDIII-2:LA	PDIII-2:AD	*OGC	AD/DRSP	D/DRSP
*BSiegel	LLuther	DMuller		GHolahan	DCrutchfield
/ 188	7/14/88	7/14/88	/ 188	/ 188	/ 188

Docket No. 50-249

Mr. Henry E. Bliss
Nuclear Licensing Manager
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

Dear Mr. Bliss:

SUBJECT: REQUEST FOR A SCHEDULAR EXEMPTION FROM CERTAIN TYPE B&C TESTS FOR
DRESDEN NUCLEAR POWER STATION, UNIT 3

On January 10, 1988 you submitted a request for a schedular exemption which would permit operation for 90 days before completing certain Appendix J Type B&C tests for the Dresden Nuclear Power Station Unit 3. In your submittal you provided the necessary information to support an exemption pursuant to 10 CFR 50.12. You also provided the necessary technical data on the penetrations that had been tested along with the history of the test on the remaining penetrations. Finally, by letter dated May 5, 1988, you provided the test data on the remaining penetrations.

On April 10, 1988, the 90 day period for which this exemption had been requested expired. On March 26, 1988, the shutdown of Unit 3 was commenced and Unit 3 has been in the refueling mode from that date until restart on June 25, 1988. Since all the required Appendix J Type B&C tests were completed prior to startup and the time period has passed the Commission is denying this exemption request because the issue is moot. Although enforcement action may be considered for the time period you were in violation prior to the requested exemption, no enforcement action will be taken for the time period for which you requested this schedular exemption.

Prior to the denial of this exemption the staff completed its technical review and a copy has been enclosed for your information. We also note that the leakage predictions regarding the penetrations for which the exemption was requested, were substantiated in your submittal dated May 5, 1988.

Sincerely,

Dennis M. Crutchfield, Director
Division of Reactor Projects - III,
IV, V & Special Projects

Enclosure:
As stated

cc: See next page

DISTRIBUTION:

Docket file	GHolahan	MRing
NRC & Local PDRs	LNorrholm	WForney
PDIII-2 r/f	BSiegel	
DCrutchfield	LLuther	

*J. GOLDBERG } VERBALLY
A. CHANDLER } CONCURRED
F. LIEBERMAN }*

PDIII-2:PM	PDIII-2:LA	PDIII-2:AD	OGC	AD/DRSP	D/DRSP
BSiegel	LLuther	DMuller		GHolahan	DCrutchfield
07/12/88	/ /88	/ /88	07/14/88	/ /88	/ /88



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

July 21, 1988

Docket No. 50-249

Mr. Henry E. Bliss
Nuclear Licensing Manager
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

Dear Mr. Bliss:

SUBJECT: REQUEST FOR A SCHEDULAR EXEMPTION FROM CERTAIN TYPE B&C TESTS FOR
DRESDEN NUCLEAR POWER STATION, UNIT 3 (TAC NO. 66937)

On January 10, 1988, you submitted a request for a schedular exemption which would permit operation for 90 days before completing certain Appendix J Type B&C tests for the Dresden Nuclear Power Station Unit 3. In your submittal you provided the necessary information to support an exemption pursuant to 10 CFR 50.12. You also provided the necessary technical data on the penetrations that had been tested along with the history of the test on the remaining penetrations. Finally, by letter dated May 5, 1988, you provided the test data on the remaining penetrations.

On April 10, 1988, the 90-day period for which this exemption had been requested expired. On March 26, 1988, the shutdown of Unit 3 was commenced and Unit 3 has been in the refueling mode from that date until restart on June 25, 1988. Since all the required Appendix J Type B&C tests were completed prior to startup and the time period has passed, the Commission is denying this exemption request because the issue is moot. Although enforcement action may be considered for the time period you were in violation prior to the requested exemption, no enforcement action will be taken for the time period for which you requested this schedular exemption.

Prior to the denial of this exemption, the staff completed its technical review and a copy has been enclosed for your information. We also note that the leakage predictions regarding the penetrations for which the exemption was requested were substantiated in your submittal dated May 5, 1988.

Sincerely,

A handwritten signature in cursive script, appearing to read "D. S. Crutchfield, for".

Dennis M. Crutchfield, Director
Division of Reactor Projects - III,
IV, V & Special Projects

Enclosure:
As stated

cc: See next page

Mr. Henry E. Bliss
Commonwealth Edison Company

Dresden Nuclear Power Station
Units 2 and 3

cc:

Michael I. Miller, Esq.
Sidley and Austin
One First National Plaza
Chicago, Illinois 60603

Mr. J. Eenigenburg
Plant Superintendent
Dresden Nuclear Power Station
Rural Route #1
Morris, Illinois 60450

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

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

Regional Administrator
Nuclear Regulatory Commission, Region III
799 Roosevelt Road, Bldg. #4
Glen Ellyn, Illinois 60137

Mr. Michael E. Parker, Chief
Division of Engineering
Illinois Department of Nuclear Safety
1035 Outer Park Drive, 5th Floor
Springfield, Illinois 62704

5
SAFETY EVALUATION REPORT
APPENDIX J TEST INTERVAL EXEMPTION
DRESDEN STATION, UNIT 3
DOCKET NO. 50-249

1.0 INTRODUCTION

On January 7, 1988, the staff was informed by NRC Region III that the licensee (Commonwealth Edison Company) had logged a single leak rate testing date for Dresden-3 local leak rate tests (LLRTs) based on the date of completing all the tests rather than the date of each individual component being tested. This recording system violates the test interval requirement of Appendix J to 10 CFR 50 and causes certain components to exceed their two-year test limit. By letter dated January 10, 1988, the licensee requested a one-time exemption from the test interval requirement of Appendix J for these components (bellows, manway gasket seal, flanges, and isolation valves) beyond the two-year Type B or Type C test interval. The licensee stated that these components either can not be tested while the reactor is at power or would require entry into a limiting condition of operation (LCO) on primary containment integrity. For those components which are required by Appendix J to be tested prior the refueling outage, a 90 day extension is requested by the licensee to allow a delay in the Type B and Type C testing for these components until the scheduled refueling outage. This is the second time the licensee requested Appendix J exemption for test deferral. The licensee made a similar request during its last shutdown for refueling in 1985.

Paragraphs III.D.2(a) and III.D.3 of Appendix J specifies that both Type B and Type C tests shall be performed during reactor shutdown for refueling, but in no case at an interval greater than two years. Dresden 3 last shutdown for refueling at the end of cycle 9 (EOC 9) which started on October 28, 1985. Due to the extensive recirculation pipe replacement program and other outage related problems, the outage was unusually long with startup not occurring until September 1986. The required Appendix J leak rate testing commenced on September 27, 1985 and continued through August 1986. As a result of the extensive EOC 9 outage, the LLRT postponement became necessary to coincide with the delayed EOC 10 refueling outage which is scheduled to begin on March 26, 1988. The licensee proposes to temporarily postpone testing for about 53 components, identified in Attachment 1 of the licensee's submittal dated January 10, 1988, to avoid the potential for an earlier reactor shutdown. The proposed test postponement for these components to March 26, 1988 will exceed the required 24-month Appendix J test interval by 49 to 147 days. The licensee has committed to perform Appendix J testing as soon as possible following the refueling outage or during any earlier outage of suitable duration should one occur prior to March 26, 1988.

2.0 EVALUATION

In its letter dated January 10, 1988, the licensee provided a list of components subject to an Appendix J exemption. The licensee indicated that these components are not able to be tested due to Technical Specification (TS) limitations while at power or due to the containment entry hazards involved in exposing personnel to high radiation and/or temperature levels. These components are the containment isolation barriers for the following system lines: drywell pneumatic supply, feedwater line, standby liquid control injection, LPCI loops, core spray injection lines, condenser steam supply and vents, recirculation loop sample line, reactor head cooling, RRCCW to drywell coolers, drywell head manway double gasket seal, main steamline drain, HPCI steam supply and pump suction, and scram discharge lines. The staff has reviewed these system line isolation barriers and finds the licensee's bases for Appendix J test deferral acceptable. These bases are summarized below.

The licensee has provided leakage test results and maintenance information on these components for the past three testing programs conducted in 1982, 1984 and 1985. The total "as found" leakage rates for these components, in standard cubic feet per hour (SCFH), are summarized as follows: 70.44 for 1982, 328.75 for 1984, and 133.64 for 1985. The average or "expected" leakage value for the three tests is 200.29. The leakage rate for the remaining unexpired and recently tested components is 299 SCFH. The licensee also summed the highest individual component leakage for each component selected from the three tests. This total leakage rate, which is considered as a maximum credible limit, is 437 SCFH. Adding this result to the remaining Type B and Type C leakage total, yields a value of 736 SCFH or about 0.9La. Adding the largest "as found" LLRT leakage (which was the 1984 test) to the remaining Type B and Type C leakage total yields a value of 627 SCFH (about 0.76La). If the average value for the past three tests is used, the total leakage is 499 SCFH or 0.6La. This value can be considered as the expected leakage. Other than the mentioned worst cases, the combined Type B and Type C leakage rates for most of the tests are all below the 0.6La limit.

Paragraphs III.B.3 and III.C.3 of Appendix J states that the combined leakage rate for all penetrations and valves subject to LLRTs shall be less than 0.6La. As seen from the licensee's test results, the "as found" leakage for 1984 test program had exceeded the acceptance criterion of 0.6La but still remained within the La (821 SCFH) limit. It should be noted that La is the limit used to compute dose consequences. Technically, if the worst case "as found" leakage is used, the leakage would still be below that used within the accident analysis. The acceptance criterion of 0.6La is applied to the "as left" leakage rates measured before the plant start-up to assure an adequate safety margin. Furthermore, the "as found" leakage rate in the 1985 test was found to be decreased compared to the leakage found in 1984 after repairing and adjusting a few severely leaking valves. These test results showed that the condition of these problem components should not be expected to change significantly during the short extended test period.

The maintenance information provided by the licensee showed an average maintenance interval of 7.14 years per penetration (service interval ranging from 7.74 years to 1.53 years per penetration). The maintenance interval start date corresponds to the start-up date following the 1980 refueling outage (4-24-80) and ends with actual repair date unless the valve has required no service since the 1980 outage. The average "potential maintenance interval" is 7.01 years (ranging from 7.93 years to 2.31 years for each specified penetration). The potential maintenance interval is the time period from last valve refurbishment to March 26, 1988. These figures showed that the average service required on each penetration is low. Therefore, these components are not expected to see a significant service interval during the short period of the test interval extension.

The staff has reviewed the licensee's submittal regarding the Appendix J test interval exemption request. Based on the above discussion, the staff finds that for the 53 components, an exemption from the LLRT test frequency specified in Appendix J should be granted based on the following:

1. The plant was in an extended refueling outage (Cycle 9) during which these components were not subject to an operating environment. Because of the delayed restart for Cycle 10, these components would be subject to much less than a 24 month service condition between tests. This gives a safety margin to reduce potential degradation of these components during the extended test interval.
2. Historically, testing has shown low "as found" leakage with the exception of the 1984 test. The ample margin between the measured leakage and the allowable leakage should accommodate any degradation likely to be experienced for these components during the extended period. The higher leakage record in the 1984 test was improved after repairing and adjusting a few severely leaked valves.
3. The intent of Appendix J was that Type B and C testing be performed during a refueling outage. The exemption would provide one-time relief from the requirement of Appendix J to allow a test interval extension for these components.

3.0 CONCLUSION

Based on the above, the staff concludes that the licensee proposed extension of the test intervals for these components identified in its submittal are acceptable. This is a one-time exemption from the two-year Type B and Type C test interval requirements as prescribed in Appendix J, and is intended to be in effect until March 26, 1988. This approval is based on the assumption that all other tests will be conducted in accordance with the requirements of Appendix J.