



Commonwealth Edison
One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

July 20, 1983

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Dresden Station Unit 2
Repair to Expansion Bellows on
Vacuum Breaker 2-1601-32B
NRC Docket No. 50-237

Dear Mr. Denton:

On July 19, 1983, a hole was discovered on an expansion bellows for torus vacuum breaker 2-1601-32B. The hole was apparently made by an inadvertent arc strike while welding on adjacent piping. The arc produced a hole measuring approximately 1/8 by 1/16 inch and is elliptical in shape. Commonwealth Edison decided to voluntarily shutdown the unit even though no LCO was violated. We propose to repair this small hole by welding over the area. We will use a qualified welder, provided by the original manufacturer of this bellows, using an approved procedure contained in an ASME Section XI repair procedure. After returning the area to at least the design thickness (0.035 inches) we will perform both a visual and dye penetrant examination and a low-pressure leakage test to insure the soundness of the repair.

We have calculated the leakage rate from the existing hole to be 6.9 scfm. The overall leakage rate as calculated from the last ILRT performed in the Spring of this year is 4.94 scfm. Therefore the total leakage rate, adding in the small hole is 11.84 scfm or within the LCO limit of 13.7 scfm.

We feel the corrective action taken as described above supported by ASME Section XI Code Case N-236 (attached) does not require a formal exemption request to 10CFR50 Appendix J, Section IV.A. as we feel that this work can be defined as a minor modification. The referenced code case allows system pressure test requirements to be deferred until the next scheduled leakage test for "minor repairs or modifications to the pressure retaining boundary..."

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In the alternative, if you feel Section IV.A of Appendix J is applicable we then formally request an exemption to this provision on the basis of our forementioned corrective actions.

Very truly yours,



B. Rybak
Nuclear Licensing Administrator

Attachment - Code Case N-236

cc: NRC Resident Inspector - Dresden

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CASES OF ASME BOILER AND PRESSURE VESSEL CODE

*Meeting of October 30, 1981
Approved by Council, January 21, 1982*

*This Case shall expire on January 21, 1985
unless previously annulled or reaffirmed.*

**Case N-236
Repair and Replacement of Class MC Vessels
Section XI, Division 1**

Inquiry: What are the requirements of Section XI, Division 1, regarding repair and replacement of Class MC Vessels?

Reply: Rules governing the inservice inspection of Class MC vessels, including repair as considered by IWA-4000 and replacements as considered by IWA-7000, are under preparation by the Committee. In the interim, it is the opinion of the Committee that repairs and replacements for Class MC vessels may be conducted under the rules of Section XI, Division 1, applicable to Class 1 vessels except as modified by the provisions of the Case. The provisions of this Case may also be used for repairs and replacements to portions of Class CC vessels not backed up by concrete.

1.0 PRESERVICE EXAMINATION

The preservice requirements described below shall apply in lieu of those of IWB-2200² or IWB-2100¹:

(a) When a vessel is repaired or replaced during the service lifetime of a power unit, the preservice examination requirements for the vessel repair or replacement, and the attaching welds, shall be met. When the repair or replacement is performed while the plant is not in service, the preservice inspection shall be performed prior to the resumption of service. When the repair or replacement is performed while the plant is in service, the preservice examinations shall be performed at the next scheduled plant outage. When a system leakage test is required by 4.0, the preservice examination may be performed either prior to or following the test.

(b) Welds performed as part of a repair or a replacement function shall be examined in accordance with and to the applicable extent of the requirements of IWA-4220¹ or IWA-4500².

¹ Paragraphs identified with superscript 1 references the 1974 Edition through the Summer 1975 Addenda of Section XI.

² Paragraphs identified with superscript 2 references the 1977 Edition, Summer 1978 Addenda of Section XI.

(1) For welds joining the Class MC vessel to items designed, constructed, and installed to the requirements of ASME Class 1, 2, or 3, the examination requirements of IWB-2000, IWC-2000, or IWD-2000, as applicable, shall apply.

(2) For all other welds, the requirements of IWA-4000, with the exception of the pressure tests of IWA-4200¹, or IWA-4400², as applicable, shall apply.

(c) Preservice examination for a repair or replacement may be conducted prior to installation provided:

(1) The examination is performed after the pressure test required by the Construction Code has been completed;

(2) Such examinations are conducted under conditions and with equipment and techniques equivalent to those that are expected to be employed for subsequent inservice examinations;

(3) The shop or field examination records are, or can be, documented and identified in a form consistent with that required by IWA-6000.

2.0 WELDING

The following requirements supplement those contained in IWB-4000, irrespective of section size or post-weld heat treat requirements:

(a) Welding procedure qualification for all welds shall be in accordance with IWB-4423(3)(a)(1)¹ or IWB-4322.1(a) through (h)², as applicable.

(b) Welder qualifications for all welds shall be in accordance with IWB-4423(3)(b)¹ or IWB-4322.2², as applicable.

(c) For the shielded metal arc welding process, low hydrogen electrodes shall be used and shall be obtained in hermetically sealed containers. During the repair welding the requirements of IWB-4423(d)(2)¹ or IWB-4321(b)(2)², as applicable, shall apply.

3.0 ACCEPTANCE STANDARDS FOR FLAW INDICATIONS

The acceptance standards described herein shall apply in lieu of those of IWB-3000.

(a) The preservice examinations of welds performed

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as part of a repair or replacement function, as required by 1.0 and performed in accordance with the procedures of IWB-4000 shall be evaluated by comparing the examination results with the following acceptance standards:

(1) For welds joining the Class MC vessel to items designed, constructed, and installed to the requirements of ASME Class 1, 2, or 3, the requirements of IWB-3000, IWC-3000, and IWD-3000, as applicable, shall apply.

(2) For all other welds the acceptance criteria as determined by IWA-4120 shall apply.

(b) The supplemental examination provisions of IWB-3200 apply.

4.0 SYSTEM PRESSURE TESTS

The system pressure test requirements described herein shall apply in lieu of those of IWA-4400, IWA-5000, and IWB-5000.

(a) Repairs to the pressure retaining boundary or replacement of Class MC vessels shall be subjected to a pneumatic leakage test in accordance with the provisions of Title 10, Part 50 of the Code of Federal Regulations, Appendix J.

(b) Minor repairs or modifications to the pressure retaining boundary for which leakage tests may be deferred until the next scheduled leakage test include the following:

(1) Welds of attachments to the surface of the pressure retaining boundary.

(2) Repair cavities the depth of which does not penetrate the required design wall by more than 10%.

(3) Welds attaching penetrations the nominal diameter of which does not exceed 1 in.

(c) The requirements of IWA-5246 for visual examination are applicable.

(d) If leakages other than normal controlled leakage are detected, or if the leakage rates of 10 CFR 50 Appendix J cannot be met, the source of leakage shall be located and the area shall be examined to the extent necessary to establish the requirements for corrective action. Repairs shall be performed in accordance with the rules of IWA-4120² or IWA-4240¹, as applicable, and leakage testing shall be performed if required by 3(a).

5.0 REPLACEMENTS

The installation requirements described herein shall apply in lieu of those of IWB-7000.

(a) Mechanical joints connecting replacements to the existing systems shall meet the requirements of Section III, NE-4700.

(b) Welds joining replacements to the existing system shall be made in conformance with IWA-4120² or IWA-4240¹ as applicable.

(c) A preservice inspection of replacements shall be made in accordance with 1.0.

(d) Materials shall comply with the requirements to which the original component or part was constructed. As an alternative, materials may comply with the requirements of Section III, NE-2000, provided the requirements of IWA-7210 are met.

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(1) For welds joining the Class MC vessel to items designed, constructed, and installed to the requirements of ASME Class 1, 2, or 3, the requirements of IWB-3000, IWC-3000, and IWD-3000, as applicable, shall apply.

(2) For all other welds the acceptance criteria as determined by IWA-4120 shall apply.

(b) The supplemental examination provisions of IWB-3200 apply.

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