



Docket No. 71-6078

Director, Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: Supplemental Information to Amendment for the Model 927 Shipping Package

References: 1) USNRC Certificate of Compliance No 6078, Revision 22, August 6, 1996
2) Letter to NRC from Combustion Engineering Inc., "Request for Amendment for the Model 927 Shipping Package" May, 7, 1998

Enclosures: I) Discussion of Changes to Appendix 2A.
II) Changed Pages for Certificate of Compliance No. 6078 Application

Dear Sir:

In response to our telephone conversation with Mr. David Tiktinsky on May 27, 1998 relative to the referenced amendment submittal, Combustion Engineering is re-submitting Sheet 4 of 4 of the licensing drawings for the Model 927 shipping package. In addition, consistent with the approach taken in the referenced amendment, Combustion Engineering is also requesting revision to the closure bolt specifications in Appendix 2A.

The drawings of the closure bolts in the current application are fabrication drawings and contain an unnecessary level of detail. Therefore, the information contained in Appendix 2A has been clarified to contain only the required criteria necessary to demonstrate the safety basis of the closure bolts. Specifically, Figures 2A-1, 2A-2, and 2A-3 have been deleted, and the pertinent information necessary to demonstrate the safety basis is now listed on page 2A-1.

1/1
NTD1

The requested changes do not reduce the safety of the package nor invalidate the original tests of the package or the nuclear criticality safety analysis.

ABB CENO Fuel Operations

Combustion Engineering, Inc.

3300 State Road P
Post Office Box 107
Hematite, Missouri 63047

Telephone (314) 937-4691
St. Louis (314) 296-5640
Fax (314) 937-7955

9806090251 980602
PDR ADOCK 07106078
C PDR

Combustion Engineering, Inc., requests approval as soon as possible in order to perform the repair work requested in the amendment, and must have approval by June 15, 1998 in order to support upcoming fuel shipments.

If there are questions regarding this matter, please feel free to contact Mr. Robert Freeman of my staff at (314) 937-4691 Ext. 425 or myself at (314) 937-4691 Ext. 399.

Sincerely,

COMBUSTION ENGINEERING, INC.



Robert W. Sharkey
Director, Regulatory Affairs

6/2/98

Date

RA98/752

cc: C. Ross Chappell

**Enclosure I
to RA98/752**

**Combustion Engineering, Inc.
Discussion of Changes to Appendix 2A**

The safety function of the closure bolts on the Model 927 shipping package are based on the following criteria, 1) the cross sectional area, 2) the tensile strength and, 3) the material hardness. According to the drawings provided by the manufacturer (currently Figure 2A-1 of Reference 1), a Grade 1 bolt made in accordance with SAE standards for physical requirements shall be used. Material handbook information supports that this designation bolt will have a tensile strength of 60 kPSI, and a minimum core hardness of (Rockwell B) of 70 kPSI.

In addition, Combustion Engineering has in the past amended the Certificate of Compliance application to allow two alternate bolt materials and designs, each of which meets or exceeds the original strength criteria for closure bolts.

The drawings supplied in Figures 2A-1 - 2A-3 contain a substantial amount of information regarding bolt head design, bolt length, and anti-corrosion treatments. In addition, the information in the currently approved drawings contains rigid tolerance information required for fabrication. Since this level of detail does not provide any added level to the safety function of the item, it is requested that the closure bolts will be characterized according to the information supplied in Enclosure II.

**Enclosure II
to RA98/752**

**Combustion Engineering, Inc.
Certificate Application List of Affected Pages**

Date: June 1, 1998

Combustion Engineering, Inc., provides for information those pages affected by this supplement to the amendment request. The replacement pages are provided in this enclosure with the changes to the text marked with a vertical line in the right hand margin. The deleted pages listed should be removed from the application.

<u>Page</u>	<u>Rev.</u>	<u>Date</u>
1-7	1	5/7/98
2A-1	1	5/7/98
2A-2	-	Deleted
2A-3	-	Deleted
2A-4	-	Deleted

FIGURE WITHHELD UNDER 10 CFR 2.390

9806090251-01

Figure 1A-1 Page I-7

REV	BY	DATE	APP'D	DATE	DESCRIPTION	
DRAWN BY: D. MOSBY 5/8/98					ABB	
- APPROVALS -						
EXCISED ENGINEER: <i>[Signature]</i> 6/12/98					NUCLEAR POWER	
QUALITY MANAGER: <i>[Signature]</i> 6/12/98						
REG. AFFAIRS: <i>[Signature]</i> 6/12/98						
OTHER: / /					927 SHIPPING CONTAINER	
SCALE: 1/8" = 1"						
TOLERANCES UNLESS OTHERWISE SPECIFIED						
FRACTIONAL: ± _____						
DECIMAL: ± _____						
ANGULAR: ± _____						
SHT 4 OF 4		DRAWING NUMBER			L-6078-01	0

Appendix 2A Required Closure Bolt Criteria

The following requirements must be satisfied for the closure bolts.

- 1) The bolt has a minimum tensile strength of 60 kPSI
- 2) The bolt has a minimum core hardness (Rockwell B) of 70.
- 3) The bolt has a nominal diameter of ½" -13 UNC-2A
- 4) Tolerances will be consistent with industry standards for bolts of this quality.
- 5) Bolt lengths shall provide full engagement with matching fastener or hardware.