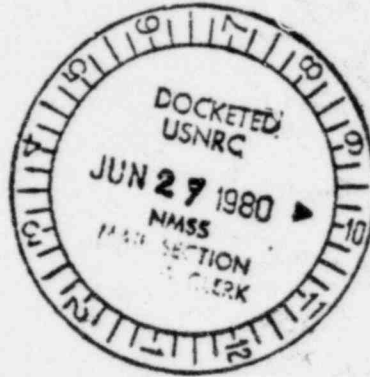


PDR

71-5957



Columbus Laboratories
 505 King Avenue
 Columbus, Ohio 43201
 Telephone (614) 424-6424
 Telex 24-5454

June 11, 1980

Mr. Charles E. McDonald
 U.S. Nuclear Regulatory Commission
 Transportation Branch
 Washington, D.C. 20555

Dear Mr. McDonald:

Certificate of Compliance Number 5957 for the Model BMI-1 Shipping Cask expires November 30, 1980. Battelle's Columbus Laboratories requests that the certificate be renewed for the normal period of 5 years. To support this request, we are enclosing eight (8) copies of "Safety Analysis Report for the Model BMI-1 Shipping Cask, Revision A, March 28, 1980". This revision of the Safety Analysis Report for Packaging (SARP) was prepared to assist you in performing your review.

Since the cask was originally designed, licensed, and fabricated in 1963 and 1964, several amendments have been offered and approved. Including the original SARP, a total of 17 documents have been submitted to the U.S. NRC for review. In Revision A, we have brought together the current applicable analyses from the 17 documents into an orderly arrangement. The format of Revision A complies as far as practical with that suggested in U.S. Nuclear Regulatory Guide 7.9. Since most of the additions and changes to the SARP are informative in nature and are not safety related, we feel that this renewal request is a minor amendment under Category 11B of the U.S. NRC Rules and Regulations, Title 10, Chapter 1, Part 170, Paragraph 170.31. Accordingly, we have enclosed a check for \$2,800, the license review fee for this category.

The following discusses the safety related features of all changes and additions to the SARP.

1. Section 0

Section 0 is a preface to Revision A which is informative in nature. The preface explains how the 17 documents have been integrated into the revised SARP and how each page in Revision A is cross referenced back to one or more of the original documents. A table in this section lists all 17 documents by title. The preface also explains how added information or changes to the information from the original 17 documents is identified. There is no safety related information in Section 0.

THIS DOCUMENT CONTAINS
 POOR QUALITY PAGES

Applicant.....
Check No. 69995 (\$2800).....
Amount, Fee Category \$150 - 11B.....
Type of Fee... Renewal.....
Date Check Rec'd 6/27/80.....
Received By... [Signature].....

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2. Page 1.1; Section 1.1

Number of packages per shipment for Fissile Class II reworded for clarity and to agree with results of criticality analysis; no change in safety condition.

3. Page 1.1; Section 1.2.1.1

Weights changed from calculated to measured weight (net increase is 60 lbs); effect on safety is negligible (see item Number 15 below).

4. Pages 1.2 and 1.3; Section 1.2.1.1

Added description of safety plug; no change in safety conditions.

5. Page 1.3; Section 1.2.1.1

Describes alternate lifting device; no decrease in safety condition (see item Number 22 below).

6. Page 1.3; Section 1.2.1.1

Added wording to allow use of thermocouples as well as thermometers for monitoring internal cavity temperatures; no change in safety condition.

7. Pages 1.4 and 1.5; Section 1.2.1.1

Corrected weights listed to reflect measured weight of cask and contents; negligible change in safety conditions (see item Number 15 below).

8. Page 1.5; Section 1.2.1.2 (b) and (c)

Added reference to drawing numbers; no change in safety condition.

9. Page 1.7; Section 1.2.2

Added section on operational features; no change in safety condition.

10. Page 1.15; Table 1.1

Change table title and added footnote; no change in safety condition.

11. Page 1.19; Section 1.3.1

Added reference; no change in safety condition.

12. Pages 1.19 to 1.32; Section 1.3.2

Added section on drawings; no change in safety condition.

13. Pages 1.33 to 1.37; Section 1.3.3

Added section on safety plug patent; no change in safety condition.

14. Page 2.1; Section 2.1

Add section on Design Criteria; no change in safety condition.

15. Page 2.1; Section 2.2

Change table of cask weight to include measured values. The measured total cask weight is 60 lbs. greater than value used in all structural calculations. The difference is about 0.3 percent. This is considered to have a negligible affect on the structural analyses and the degree of safety indicated in these analyses.

16. Page 2.3; Section 2.4.3

Added explanatory paragraph; no change in safety condition.

17. Page 2.6; Section 2.4.3.2

Added reference to alternative cover lifting device; no decrease in safety (see Item 22 below).

18. Page 2.29; Section 2.7

Added explanatory paragraph; no change in safety condition.

19. Page 2.42; Section 2.8

Added explanatory paragraphs related to special form contents; no change in safety condition.

20. Pages 2.45 and 2.46

Changed calculations to reflect use of product canister having 0.31-in. smaller diameter. Margins of safety changed from 2.43 to 2.37 and from 1.14 to 1.10 for two impact orientations.

21. Page 2.49; Section 2.10.2

Added reference to canister drawing; no change in safety condition.

22. Pages 2.108 to 2.112

Added results of tests of alternative cover lifting device; no decrease in safety.

23. Page 3.1; Section 3.1.1

Added summary paragraph; no change in safety condition.

24. Page 3.5; Section 3.3

Added section on technical specifications; no change in safety condition.

25. Pages 4.1 to 4.3; Section 4

Added containment section; no change in safety condition.

26. Page 5.4; Table 5.1

Added summary table; no change in safety condition.

27. Page 5.13; Section 5.4.2

Reorganized explanatory paragraph for clarity; no change in safety condition.

28. Page 6.3; Section 6.1.3

Added a listing of the cask contents which are evaluated; no change in safety condition.

29. Pages 7.1 through 7.27; Section 7.

Added Section 7. to conform to SARP format guidelines; no change in safety condition.

30. Pages 8.1 through 8.11; Section 8.

Added Section 8. to conform to SARP format guidelines; no change in safety condition.

The change in the cask weight from calculated to measured values will require a change to Paragraph 5(a)(2) of the Certificate of Compliance. The last sentence of this paragraph should now read "The total cask weight, including maximum contents of 1,110 lbs., is 23,660 lbs."

Mr. Charles E. McDonald

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June 11, 1980

Since this cask is in almost constant use, you will understand our desire to obtain renewal of the certificate before the expiration date in November. Please notify us when the review schedule for this SARP has been established.

Sincerely,



Richard J. Burian
Research Engineer
Nuclear and Flow Systems Section

RJB/sm

Enc.