

JUL 12 1963

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW	
1 <sup>st</sup> Review Date: 7/07/98	Classification (Circle Number):
Authority: CIADC/ADDD	Classification Retained: U
Name: W. K. Coy	Classification Changed to: U
2 <sup>nd</sup> Review Date: 7/13/98	Contains No DOE Classified Information: <input checked="" type="checkbox"/>
Authority: R.B. Crann	Coordinates With: <input checked="" type="checkbox"/>
Name: R.B. Crann	Contains UCAIT: <input checked="" type="checkbox"/>
	Comments: <i>OK for opening</i>

File No: BB-53, 3-2  
 T-19456  
 Test Completed: 6-26-63

*upgraded to C.Y. per auth.  
 memo from B. Johnson 7331-1 to  
 Mr. W.K. Coy, 3427-1, dated 7/17/63.*

MR. D. S. DRESEN - 7522  
 Attn: Mr. P. W. Playlock

Re: Leak Rate, X-ray and Temperature Cycling Test on B-53, Serial No. 25555 (6780)

Summary

This B-53 was X-rayed to determine that there were no WB components and that this unit was in fact a Type 5A unit. The unit was next subjected to an Argon leak rate test. Leak rate was  $3.2 \times 10^{-5}$  cc/sec STP. The next test was a temperature cycling test at -65°F and +160°F. The temperature exposure had no affect on the internal pressure.

Object of Test

The object of this test was to prove this production B-53 would meet design specifications after being subjected to a stockpile to target environment it may encounter.

Authorization for Test

This test was authorized in an Environmental Test Order from Division 7522, dated February 19, 1963. Mr. Paul Blaylock was the consultant.

Procedure and Results

Division 7322 performed the X-ray of the unit, using a Co<sup>60</sup> source. The B-53 was X-rayed to determine that it was actually a Type 5A (inert) unit. This was done in the southeast bay of Bldg. 892.

The next test requested on the B-53 was an Argon leak rate test performed on the basic unit. This was done by Division 4631 using the large vacuum chamber located in Bldg. 6630 in Area III. The Argon leak rate was  $3.2 \times 10^{-5}$  cc/sec STP. The third and last part of the test on the B-53 was to subject it to three temperature cycles at -65°F and +160°F, allowing the unit to remain at each temperature for four days. The total exposure time was 24 days. This test was run in accordance with SC-4452B(M).

RECEIVED  
 JUL 15 1968  
 CENTRAL RECORD FILE

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW DOWNGRADING OR DECLASSIFICATION STAMP	
CLASSIFICATION CHANGED TO: U	AUTHORITY: R. B. Crann
Emelda S. Selph 7/21/98	RECORD ID: 98SN2837
PERSON CHANGING MARKING & DATE: W. K. Coy 7/22/98	DATED: 7/13/98
PERSON VERIFYING MARKING & DATE:	

CENTRAL RECORD FILE	
ACCOUNTABILITY CARD	<i>DPB</i>
FILE No. 53 Prog.	<i>3-2</i>

1975

Mr. D. S. Dreesen - 7522

- 2 -

T-19456

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The internal pressure which was measured before and after the temperature cycling test by Division 7522, was not affected by the exposure.

Figure 1 shows the B-53 in the Conrad chamber.

*A. K. Alberts*  
A. K. ALBERTS - 7331-1

*Bill Johnson*  
Approved By: B. JOHNSON - 7331-1

AKA:nw

Encl: Figure 1

Copy to:

G. S. Williams, Jr., 1442

E. I. Bruce, 1521

Attn: C. W. Moses

D. S. Bliss, 2344

E. H. Copeland, 7331

C. L. Johnson, 7523

Central Record File, 3421-3

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D#63-1524

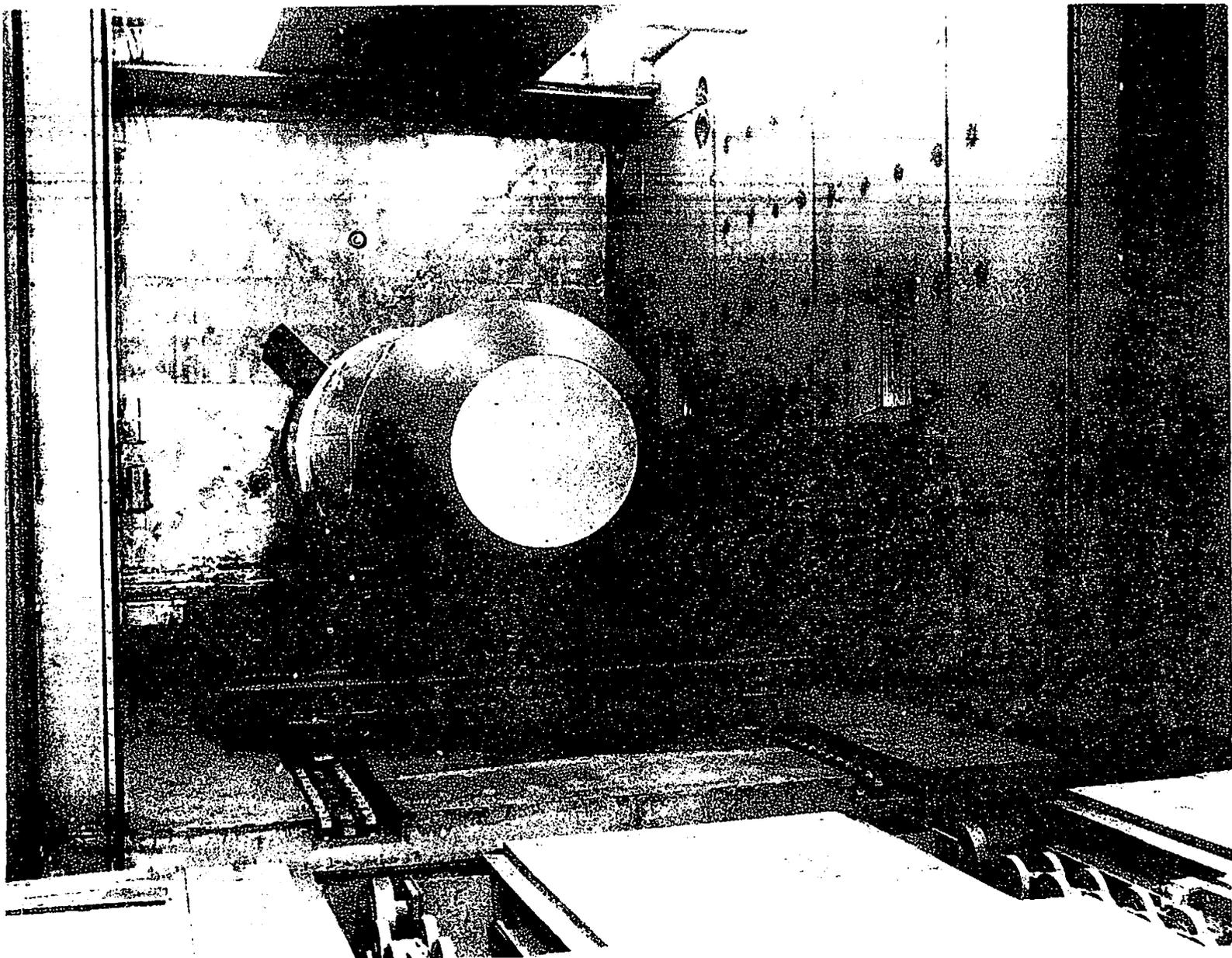


FIGURE 1. B-3 ON THE TRACK IN THE NORTH END OF THE DUAL CHAMBER CONRAD CHAMBER

D#63-1524

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