

UNCLASSIFIED

APR 14 1959

1326

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW	
1 <sup>st</sup> Review Date: <u>9/22/98</u>	Determination (Circle Numbers):
Authority: <u>W.C. Layne</u>	Classification Retained: <u>U</u>
2 <sup>nd</sup> Review Date: <u>9/24/98</u>	Classification Changed to: <u>U</u>
Authority: <u>W.C. Layne</u>	Contains No DOE Classified Information: <u>U</u>
Name: <u>W.C. Layne</u>	Coordinates With: <u>as</u>
	Contains UCAIT: <u>as</u>
	Comments: <u>W.C. Layne</u>

TX-41, 3-2  
Project No. ET-7248  
Case No. 746.00  
Completed: 2-26-59

TO: DISTRIBUTION

Re: Comparison of Two TX-41 Forward Skirts With Different Additive Finishes Under High Humidity Conditions

Ref: Memo, C. D. Kistler, ACF Industries, Albuquerque, New Mexico to E. A. Aas, 8162, Sandia Corporation, Livermore, California, dated 2-4-59

Object of Test

This test was performed in order to determine the adequacy of the additive finishes and to make a choice between the two, if one was perceptibly better than the other. It was arranged by work request from Division 1218, 12-8-58 and 1-21-59. Mr. A. E. Sensel of that organization was the consultant.

Procedure and Results

The original test plan was to subject the two skirts to the same 20-day humidity test that TX-41-TRM #4 had been through. This would have allowed a comparison of the resistance of the test items and the TX-41 to the humidity exposure.

The urgency of the test was such that a delay of a few days could not be permitted. The particular test chamber desired for the test was in operation on another humidity cycle at the time, different from the 48-hour SCEI cycle. The two skirts were therefore placed in the chamber for exposure to the humid conditions of the test then in process. The test conditions at this time were: Constant relative humidity of 100% and a temperature of 80°F for 12 hours, then a linear change to 50°F in 4 hours followed by 10 hours at 50°F, then back to 80°F as soon as possible. This cycle was being repeated approximately every 24 hours.

The two skirts could only be compared to each other because the test conditions outlined above are not nearly as severe as those of the SCEI cycle.

After 23 days of this exposure the conditions in the chamber were changed to the 48-hour SCEI cycle and maintained for the remaining 8 days available for the test.

The reference memo outlines the finishes on the two skirts. Essentially, the difference was that one (Serial Number 62016) included a wash primer in the painting process and the other (Serial Number 62023) did not.

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW DOWNGRADING OR DECLASSIFICATION STAMP	
CLASSIFICATION CHANGED TO: <u>U</u>	AUTHORITY: <u>W.C. Layne</u>
PERSON CHANGING MARKING & DATE: <u>Emelda Singh 9/28/98</u>	RECORD ID: <u>98SN 4460</u>
PERSON VERIFYING MARKING & DATE: <u>W.C. Layne 9/28/98</u>	DATED: <u>9/24/98</u>

1959

CENTRAL RECORD FILE	
ACCORDING TO CARD	<u>W.C. Layne</u>
FILE No.	<u>TX-41</u>
	<u>3-2</u>

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Distribution

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ET-7248

Procedure and Results (Cont.)

Examination of the two skirts following the test exposure revealed that both skirts were in acceptable condition. However, corrosion had begun on each one, especially adjacent to the rivets of the assemblies. The skirt assembly with the wash primer (Serial Number 62016) was better than the other. The corrosion on the worst unit was characterized by the orange-peel texture of the paint covering these areas. The percentage of the area exhibiting this texture was quite small compared to the over-all area.

*E.D. Graves*

Test Engineer: ERNEST GRAVES - 1611-2

Original Signed By  
M. A. RICHTER

Approved by: M. A. RICHTER - 1611-2

EDG:1611:jb

Copy to

P. F. Jones, 1218

Attn: A. E. Sensel

W. A. Gardner, 1610

J. M. Wieser, 1592

C. L. Gomel, 5523

E. A. Aas, 8162

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