

TOUCHSTONE

Systems ■ Services, Inc.

TEST REPORT

PAGE 1 OF 13
TEST NO. T9090
LAB NO.: 1312302

Testing Performed Per

TECHNICAL BULLETIN 133

Flammability Test Procedure For Seating Furniture for Use In Public Occupancies

Report No. T9090
May 6, 2013

Prepared For:

Cortech Correctional Technologies
7530 Plaza Court
Willowbrook IL 60527
P.O.: 000456

The TouchStone of Quality Is The Test

Passed Criteria A & B of CAL133

Endurance Bunk

Testing Performed by and Report/DVD Prepared by

TouchStone Systems & Services Inc.
1817 Porter St SW
Wyoming MI 49519

The test specimen identification is as provided by the client and TouchStone Systems & Services accepts no responsibility for any inaccuracies therein. The results apply specifically to the specimen tested, in the manner tested, and not to the entire production of these or similar materials, nor to the performance when used in combination with other materials.

TEST SPECIFICATION:

This report describes the results of the California Bureau of Home Furnishings Technical Bulletin 133 Flammability Test on a Furniture Specimen.

DESCRIPTION OF TEST SPECIMEN:

See product description on the cover page of this report submitted by the client for this particular specimen tested. Test results are on pages 4. Before and after photos are on page 13.

TEST EQUIPMENT USED: California 133 Burn Room
Equipment verified prior to test.

TEST PROCEDURE:

After all calibration efforts have been done on all monitoring equipment, the sample is placed on the digital scale, weighed and photographed.

The positioning block was placed on the sample. The propane burner was placed in contact with the block. The back block was then carefully lifted off and then the lower block slid out.

Verification was made that all data acquisition equipment was functioning properly.

The video recorder was started, if required, and the burner was set for 13 lpm propane flow, and lit. The burner was allowed to burn for 80 seconds and then removed. All systems were constantly monitored. The following events were recorded if, or, as they occurred:

- ignition of specimen
- general description of burning behavior
- occurrence of pool fire under specimen
- any other unusual occurrence.

TEST RESULTS:

PASSED THE CRITERIA OF CAL TB133, VII. A & B.

CRITERIA FOR FAILURE:

- 1) If temperature increase greater at ceiling than allowed.
- 2) If temperature increase greater at four foot than allowed.
- 3) If greater smoke opacity at the four foot level than allowed.
- 4) If carbon monoxide concentrations in room greater than allowed.
- 5) If weight loss due to combustion greater than allowed.
- 6) Maximum rate of heat release (kW) to be < 80 kW.
- 7) Total heat release (MJ) in first 10 minutes to be < 25MJ.

OBSERVATIONS:

MIN/SEC

00:12 Plastic shiny, melting
01:25 Low blue flames on top and edge
02:00 Two small blue flames remain on rear rail; one flame on top surface
04:00 Two flames remain; melting plastic
04:27 Flames SE; thin smoke
06:00 No more smoke
End of test
06:45 Stopped data collection

DISPOSITION:

The table was retained awaiting disposition from Cortech.

Testing managed by:

Eric Frees, Test Technician



Terry S. Heath, Lab Manager

TouchStone Systems

Test Results

Test per Technical Bulletin No. 133, Section VII.A for Criteria A

Test No. T9090

Date 5/6/2013 3:36 PM

Client Cortech, USA

The following tests were produced under the conditions of a test room.

Peak ceiling temperature given in Celsius and time.	71.69 at 00:01:21
Peak 4' temperature given in Celsius and time.	26.29 at 00:01:21
Peak 4' smoke opacity given in percentage and time	1.1718 at 00:01:31
Peak carbon monoxide concentrations given in ppm and time	269.6 at 00:01:42
Weight loss due to combustion during first 10 minutes of test	0.01 at 00:00:44

Seating furniture fails to meet the following requirements of this test procedure if any of the following criteria are exceeded.

Temperature increase of 111°C or greater at ceiling.	Not Exceeded
Temperature increase of 28°C or greater at four foot.	Not Exceeded
Smoke opacity at the four foot level greater than 75%	Not Exceeded
Carbon monoxide concentration in room at 1000 ppm or greater for 5 minutes	Not Exceeded
Weight loss due to combustion in first 10 minutes 3 pounds or greater.	Not Exceeded

Page 4 of 13

Test No. T9090

Lab No. 1312302

TouchStone Systems

Test Results

Test per Technical Bulletin No. 133, Section VII.B for Criteria B

Test No. T9090

Date 5/6/2013 3:36 PM

Client Cortech, USA

The following tests were produced under the conditions of a test room.

Peak 4' smoke opacity given in percentage and time	1.1718 at 00:01:31
Peak carbon monoxide concentrations given in ppm and time	269.6 at 00:01:42
Peak rate of heat release given in kilowatt and time	11.2 at 00:02:04
Total heat release in MJ in the first 10 minutes of the test	0.9

Seating furniture fails to meet the following requirements of this test procedure if any of the following criteria are exceeded.

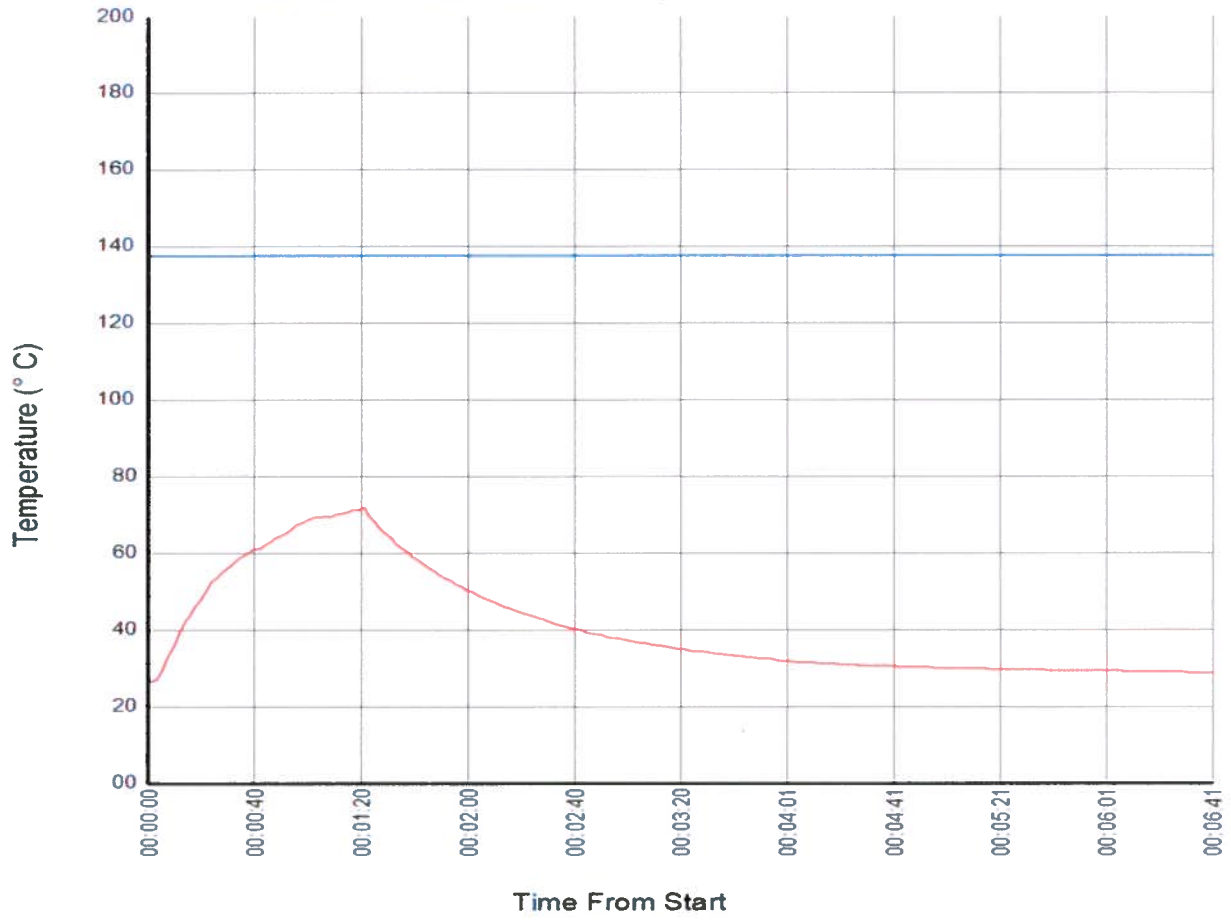
Maximum rate of heat release of 80 kW	Not Exceeded
Total heat release in first 10 minutes greater than 25 MJ	Not Exceeded
Smoke opacity at the four foot level greater than 75%	Not Exceeded
Carbon monoxide concentration in room at 1000 ppm or greater for 5 minutes	Not Exceeded

Page 5 of 13

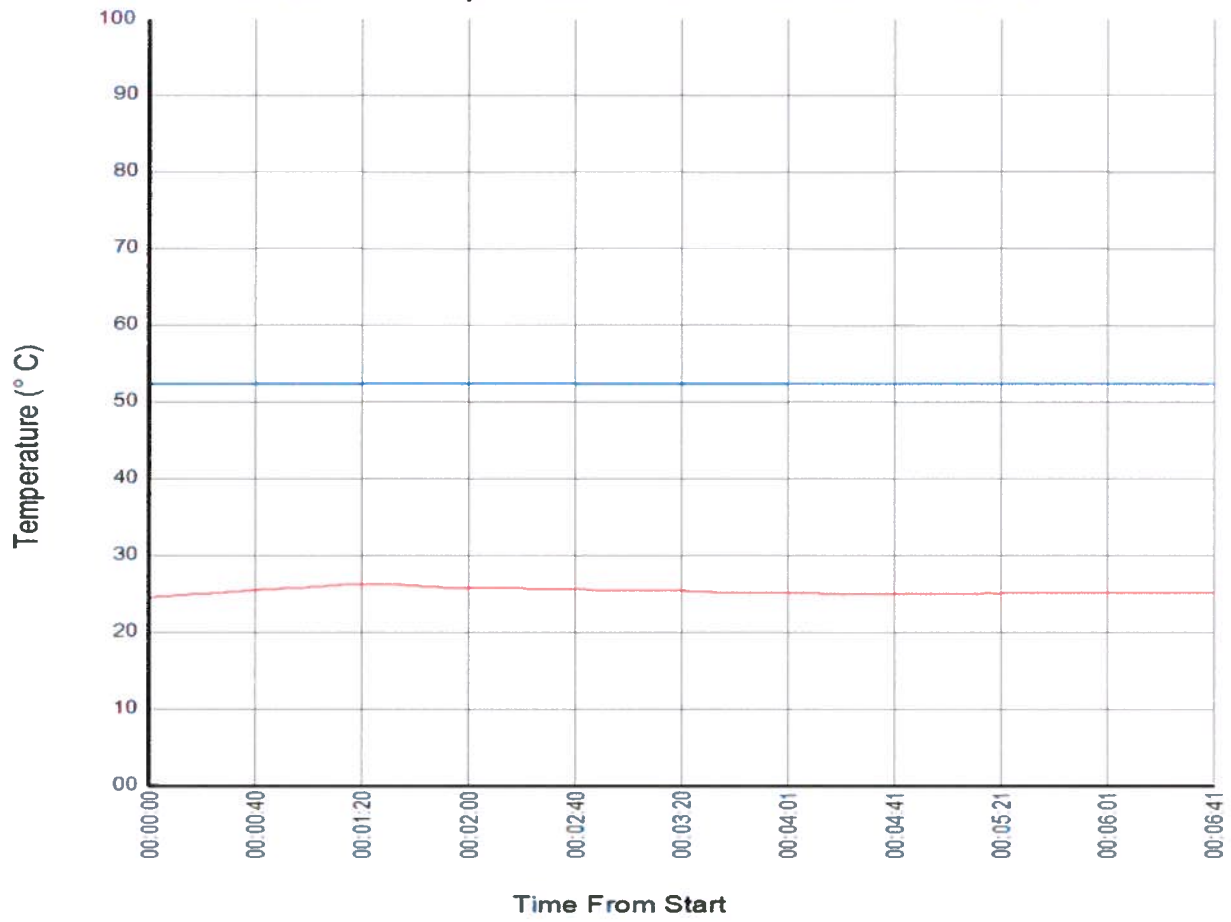
Test No. T9090

Lab No. 1312302

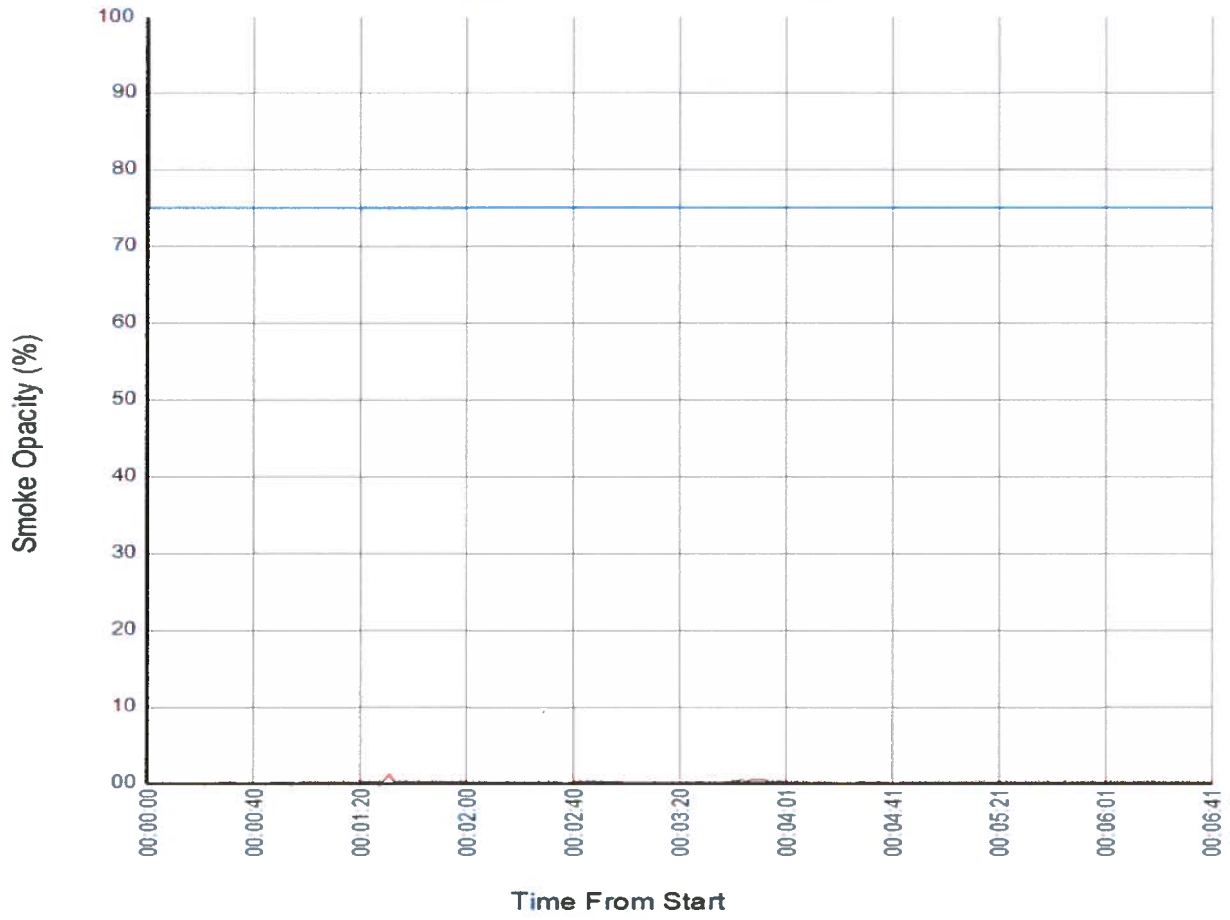
Ceiling Temperature vs. Time - CAL 133 A



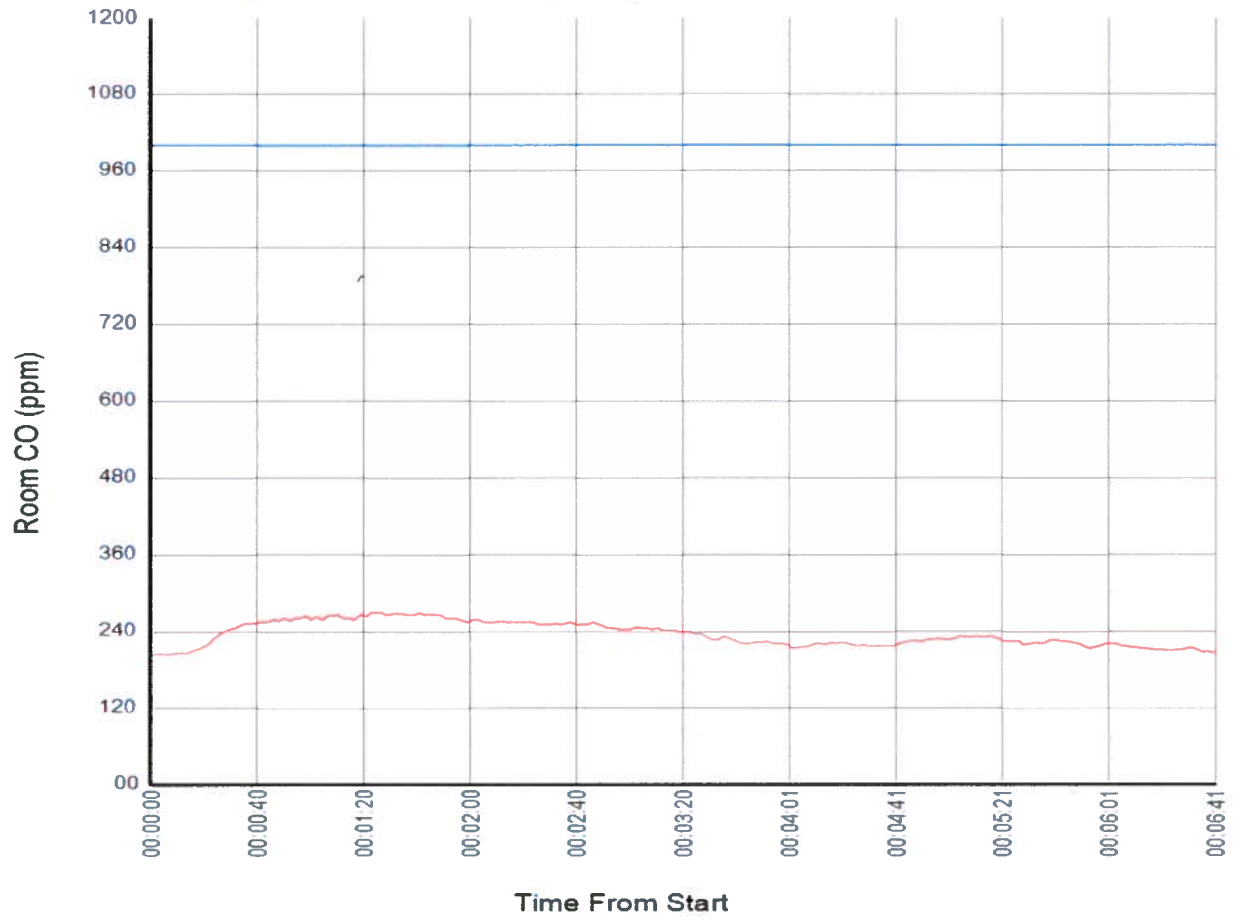
Plot of 4' Temperature vs. Time - CAL 133 A



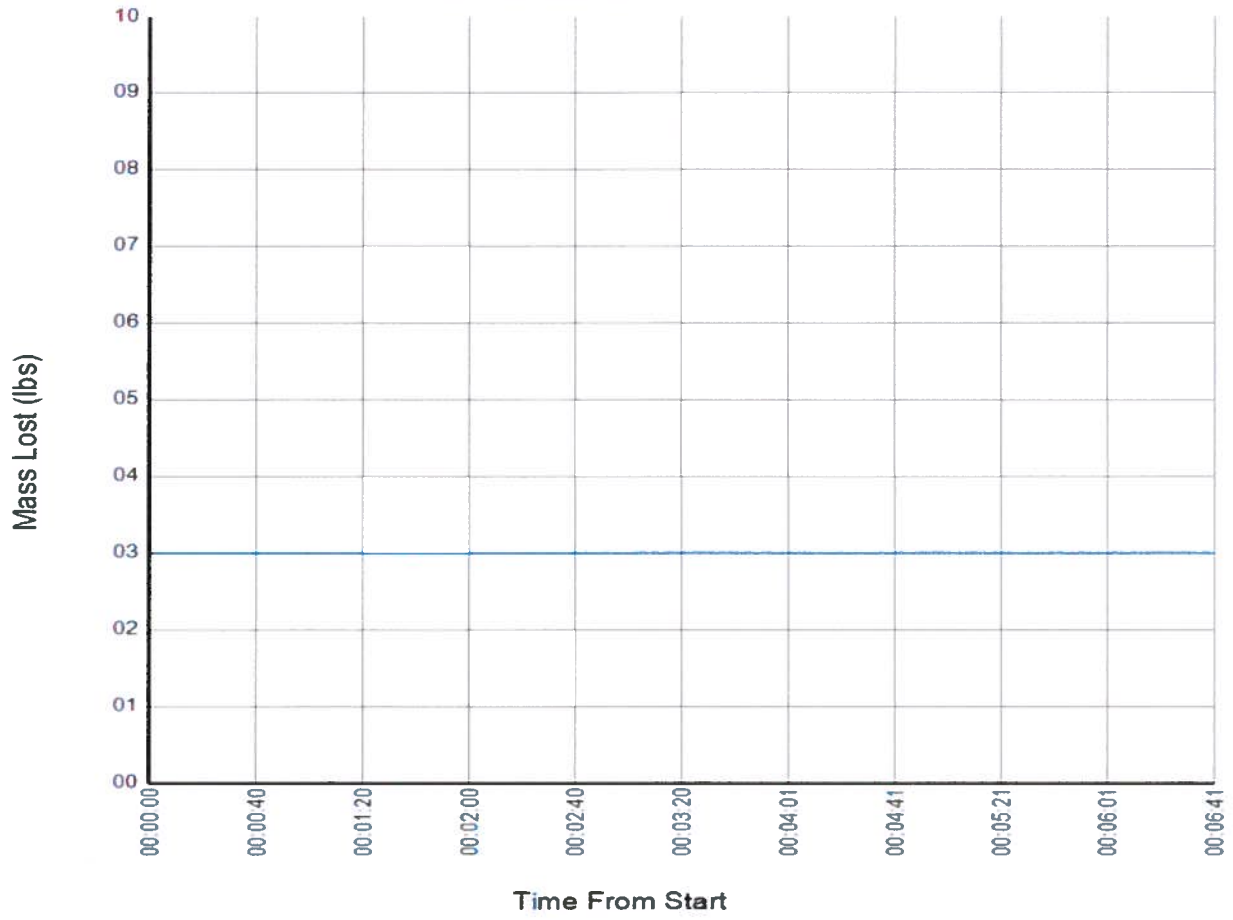
Plot of Smoke Opacity - CAL 133 A



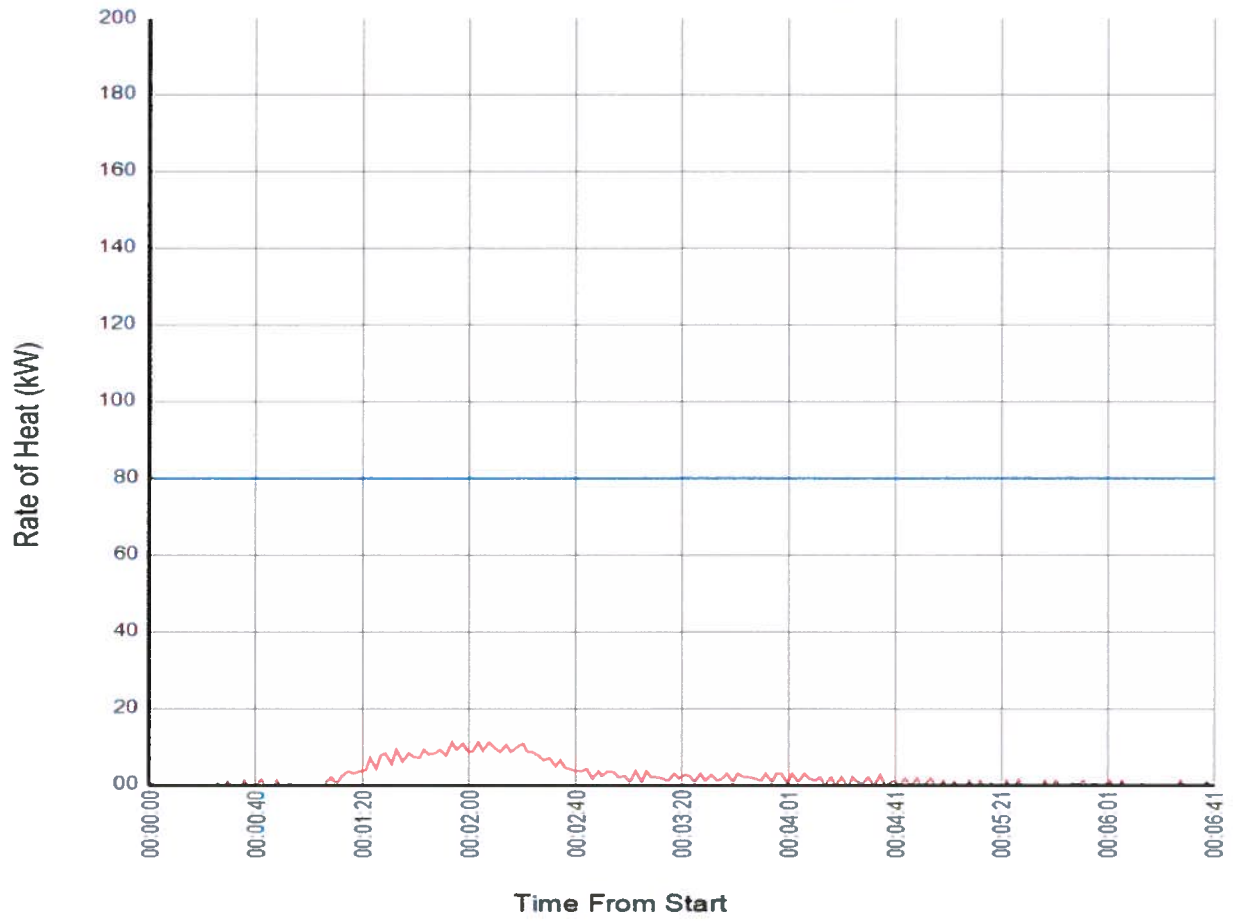
Plot of Room CO vs. Time - CAL 133 A



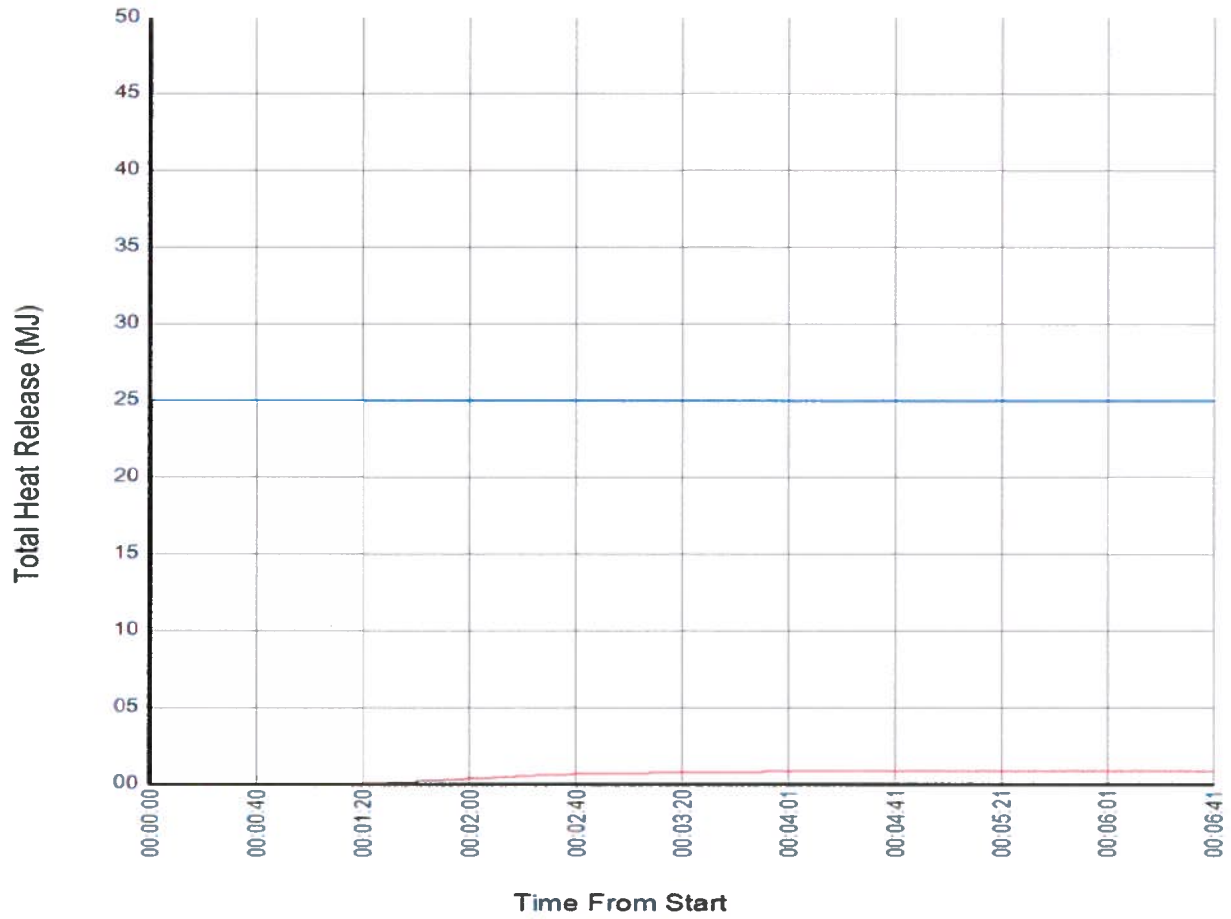
Plot of Mass Lost - CAL 133

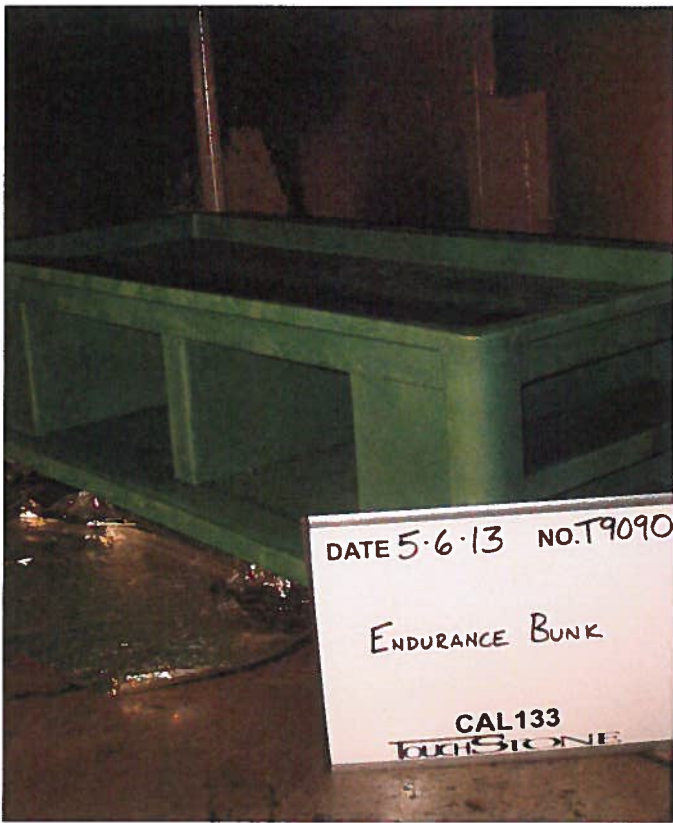


Plot of Heat Release - CAL 133 B

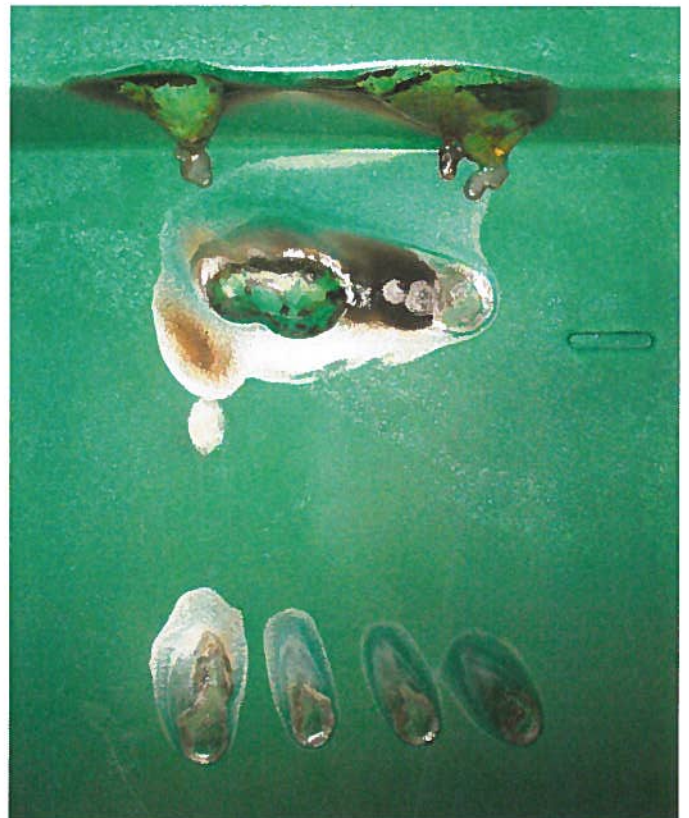
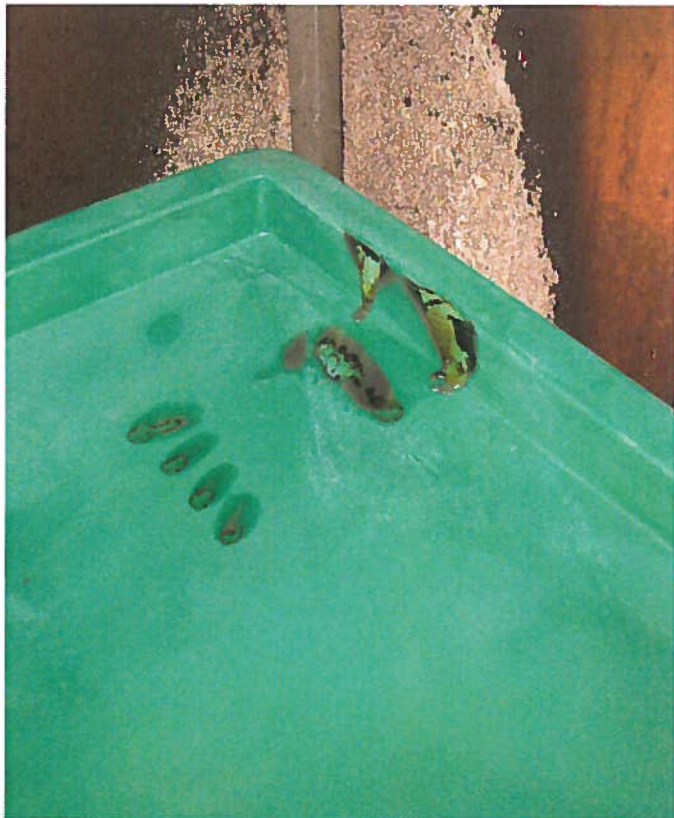
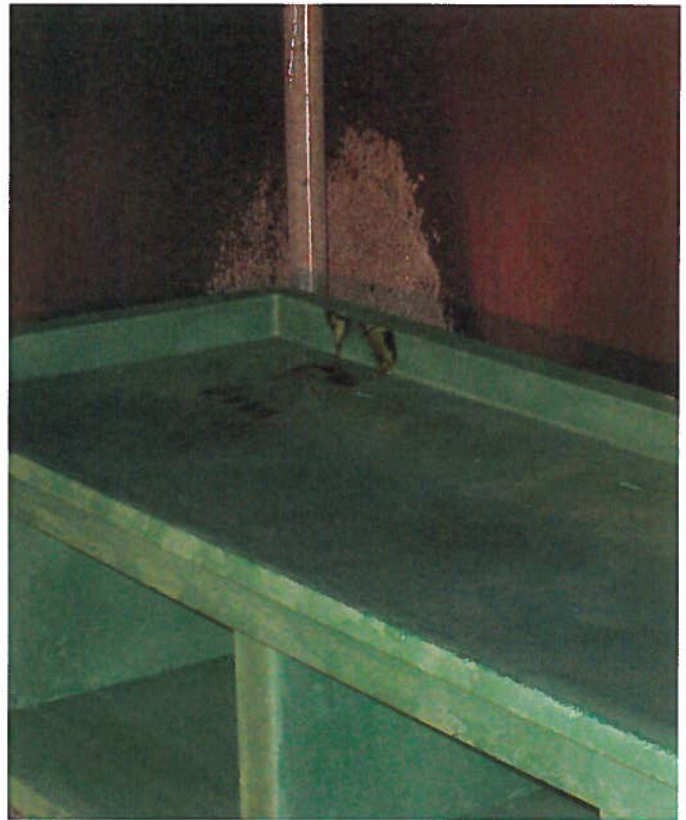


Plot of Total Heat - CAL 133 B





T9090 - Endurance Bunk - CAL133
P/N: 7601



T9090 - Endurance Bunk - CAL133
P/N: 7601