

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

NONCONFORMANCE REPORT

Project No. 20.06002.01.322

NCR No. 2005-26

PART 1: DESCRIPTION OF NONCONFORMANCE:

Four new thermometers were found to be out of tolerance during a normally scheduled calibration.

Ertco, ASTM 1C, Serial Number: 4359, Asset Number: 11678

Ertco, ASTM 1C, Serial Number: 6573, Asset Number: 11679

Ertco, ASTM 1C, Serial Number: 6584, Asset Number: 11680

Ertco, ASTM 1C, Serial Number: 6567, Asset Number: 11681

Initiated by: Darrell S. Dunn

Date: 6/10/2005

PART 2: PROPOSED DISPOSITION AND CORRECTIVE ACTION

Disposition:

Scrap - the mercury thermometers will be properly disposed as chemical waste. No tests were conducted and no data was obtained using these thermometers.

Basis of Disposition:

Mercury separation occurs when the thermometers are incorrectly stored and does not occur during normal use. The mercury separation occurred during shipping and cannot be corrected.

Action to Correct Nonconformance:

The thermometers were not placed into service and placed in appropriate chemical waste containers.

Target date for completion: 6/16/2005


Proposed by: Darrell S. Dunn

Date: 6/10/2005

PART 3: APPROVAL

Element Manager: 

Date: 6/10/2005

Director of QA: 

Date: 6/13/2005

Comments/Instructions:

PART 4: CLOSE OUT

Comments: Review of calibration system
data base confirms these are inactive -
removed from service.

Distribution:

D. Dunn
V. Jain
S. Mohanty
QA records

Verified by: 

Date: 6/17/05

SOUTHWEST RESEARCH INSTITUTE

6220 CULEBRA ROAD • POST OFFICE DRAWER 28510 • SAN ANTONIO, TEXAS 78228-0510 • TEL (210) 522-5215 • FAX (210) 522-369

To: Darrell Dunn, Div/20, B57

From: Walt Hill, Metrology Group Leader
Institute Calibration Laboratory

Date: Jun. 03, 2005

Subject: Out-of-tolerance Notice

The purpose of this notice is to alert you of a condition, which may have caused erroneous measurements affecting safety or the quality of products or services your organization provides. The attached as-found readings are provided for your evaluation to determine if the instrument listed below had an impact and if further action is required.

When the as-found results are near the specification limit or a margin less than the measurement uncertainty, it is not possible to state in-tolerance or out-of-tolerance with a 95% level of confidence. It is the Institute Calibration Laboratory policy that the client is made aware of this situation because the end-user is taking some of the risk that the instrument listed below may not meet the end-user measurement requirements.

Your review/evaluation should be conducted in accordance with your organizational quality policy and procedural requirements. If we can be of further assistance, please contact the Calibration Laboratory at 522-5215.

Manufacturer: Ertco **Model:** ASTM 2C

Description: Thermometer **Serial Number:** 6578

Asset Number: 11679 **User ID Number:**

Last Calibration: N/A

Date Received for Service: Jun. 02, 2005 **Work Order Number:** 30306474

Service Requested: Scheduled calibration

Remarks: Out of tol. See Data Sheet

OUT OF TOLERANCE

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Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order.	303064474	Mfr.	ERTCO	Technician	JRG
Asset No.	011679	Model	ASTM 2C		
Serial No.	6573	Type.	THERMOMETER	Cal Date.	03-Jun-05
Remarks.	Accuracy Reference ANSI Z236.1-1983				

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Temperature	°C	°C	°C	°C	°C	Result
	0.1	0.5	0.4	1.0	0.12	Pass
	75.0	75.2	0.2	1.0	0.12	Pass
	149.9	151.0	1.1	1.0	0.12	Fail
	225.3	226.3	1.0	1.0	0.12	Pass
	300.1	300.5	0.4	1.0	0.12	Pass
END OF REPORT						

SOUTHWEST RESEARCH INSTITUTE

6220 CULEBRA ROAD • POST OFFICE DRAWER 28510 • SAN ANTONIO, TEXAS 78228-0510 • TEL (210) 522-6615 • FAX (210) 522-369

To: Darrell Dunn, Div/20, B57

From: Walt Hill, Metrology Group Leader
Institute Calibration Laboratory

Date: Jun. 03, 2005

Subject: Out-of-tolerance Notice

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Manufacturer: Ertco **Model:** ASTM 2C

Description: Thermometer **Serial Number:** 6554

Asset Number: 11680 **User ID Number:**

Last Calibration: N/A

Date Received for Service: Jun. 02, 2005 **Work Order Number:** 39306473

Service Requested: Scheduled calibration

Remarks: Out of tol. See Data Sheet

OUT OF TOLERANCE

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Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order.	303064473	Mfr.	ERTCO	Technician	JRC
Asset No.	011680	Model	ASTM 2C		
Serial No.	6584	Type	THERMOMETER	Cal Date.	03-Jun-05
Remarks:	Accuracy Reference ANSI Z236.1-1983				

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Temperature	°C	°C	°C	°C	°C	Result
	0.1	1.8	1.7	1.0	0.12	Fail
	75.0	76.0	1.0	1.0	0.12	Pass
	149.9	151.0	1.1	1.0	0.12	Fail
	225.3	226.0	0.7	1.0	0.12	Pass
	300.1	300.5	0.4	1.0	0.12	Pass
END OF REPORT						

SOUTHWEST RESEARCH INSTITUTE

6220 CULEBRA ROAD • POST OFFICE DRAWER 28510 • SAN ANTONIO, TEXAS 78228-0510 • TEL (210) 522-5215 • FAX (210) 522-3668

To: Darrell Dunn, Div20, B57

From: Walt Hill, Metrology Group Leader
Institute Calibration Laboratory

Date: Jun. 03, 2005

Subject: Out-of-tolerance Notice

The purpose of this notice is to alert you of a condition, which may have caused erroneous measurements affecting safety or the quality of products or services your organization provides. The attached as-found readings are provided for your evaluation to determine if the instrument listed below had an impact and if further action is required.

When the as-found results are near the specification limit or are marginally less than the measurement uncertainty, it is not possible to state in-tolerance or out-of-tolerance with a 95% level of confidence. It is the Institute Calibration Laboratory policy that the client is made aware of this situation because the end-user is taking some of the risk that the instrument listed below may not meet the end-user measurement requirements.

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Manufacturer: Ertco **Model:** ASTM 1C

Description: Thermometer **Serial Number:** 1373

Asset Number: 11678 **User ID Number:**

Last Calibration: N/A

Date Received for Service: Jun. 02, 2005 **Work Order Number:** 39306475

Service Requested: Scheduled calibration

Remarks: Out of tol. See Data Sheet

OUT OF TOLERANCE

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Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303064475	Mfr.	ERTCO	Technician	JRG
Asset No.	011678	Model	ASTM 1C		
Serial No.	4359	Type.	THERMOMETER	Cal Date.	03-Jun-05
Remarks:	Accuracy Reference ANSI Z236.1-1983				

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
	°C	°C	°C	°C	°C	Result
Temperature	-19.9	-18.5	1.4	0.5	0.12	Fail
	0.1	1.8	1.7	0.5	0.12	Fail
	50.0	51.4	1.4	0.5	0.12	Fail
	100.0	101.0	1.0	0.5	0.12	Fail
	149.9	150.5	0.6	0.5	0.12	Fail
END OF REPORT						

SOUTHWEST RESEARCH INSTITUTE

6220 CULEBRA ROAD • POST OFFICE DRAWER 28510 • SAN ANTONIO, TEXAS 78228-0510 • TEL (210) 522-5215 • FAX (210) 522-3699

To: Darrell Dunn, Div/20, B57

From: Walt Hill, Metrology Group Leader
Institute Calibration Laboratory

Date: Jun. 03, 2005

Subject: Out-of-tolerance Notice

The purpose of this notice is to alert you of a condition, which may have caused erroneous measurements affecting safety or the quality of products or services your organization provides. The attached as-found readings are provided for your evaluation to determine if the instrument listed below had an impact and if further action is required.

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Manufacturer: Ertco **Model:** ASTM 2C

Description: Thermometer **Serial Number:** 6557

Asset Number: 11681 **User ID Number:**

Last Calibration: N/A

Date Received for Service: Jun. 02, 2005 **Work Order Number:** 30306472

Service Requested: Scheduled calibration

Remarks: Out of tol. See Data Sheet

OUT OF TOLERANCE

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Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303064472	Mfr.	ERTCO	Technician	JRG
Asset No.	011681	Model	ASTM 2C	Cal Date.	03-Jun-05
Serial No.	6567	Type.	THERMOMETER		
Remarks:	Accuracy Reference ANSI Z236.1-1983				

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Temperature	°C	°C	°C	°C	°C	Result
	0.1	2.5	2.4	1.0	0.12	Fail
	75.0	76.5	1.5	1.0	0.12	Fail
	149.9	151.5	1.6	1.0	0.12	Fail
	225.3	227.0	1.7	1.0	0.12	Fail
	300.1	301.5	1.4	1.0	0.12	Fail

END OF REPORT