

# SOUTHWEST RESEARCH INSTITUTE

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**To:** Don Bannon, Div 20, Ext 5118  
**From:** Walt Hill, Metrology Group Leader  
Institute Calibration Laboratory

**Date:** Apr. 11, 2006  
**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, +/- 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:** Fisher      **Model:** 15-166A  
**Description:** Thermometer      **Serial Number:** C98-106  
**Asset Number:** 7164      **User ID Number:**  
**Last Calibration:** April 27, 2005

**Date Received for Service:** Apr. '07, 2006      **Work Order Number:** 303068735

**Service Requested:** Scheduled calibration  
**Remarks:** Out of tolerance at 150°C See Data Sheet.

Q200604260002  
Instrument calibration record for Fisher  
Scientific Thermometer, Model #15-166A,  
Serial # C98-106 (04/11/2006)

Southwest Research Institute  
Calibration Laboratory  
Measurement Report

Work Order:	303068735	Mfr:	Fisher-Scientific	Technician:	blt
Asset No:	007164	Model:	15-166A (ASTM 1C)		
Serial No:	C98-106	Type:	THERMOMETER	Cal Date:	11-Apr-06
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	-19.87	-20.0	-0.1	0.5	0.29	Pass
	0.09	0.0	-0.1	0.5	0.29	Pass
	49.98	50.0	0.0	0.5	0.29	Pass
	99.94	100.0	0.1	0.5	0.29	Pass
	150.00	149.2	-0.8	0.5	0.29	Fail
END OF REPORT						

**Bob Trollinger**

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**From:** Don Bannon [dbannon@cnwra.swri.edu]  
**Sent:** Wednesday, April 12, 2006 7:37 AM  
**To:** 'Bob Trollinger'  
**Subject:** RE: Out of tolerance

Bob--

I concur. Please remove the thermometer from service.

Thank you,  
--Don

Don Bannon - Staff Technician  
Geology & Geophysics, CNWRA  
Southwest Research Institute  
6220 Culebra Road  
San Antonio, TX 78238  
210-522-5118  
[dbannon@swri.org](mailto:dbannon@swri.org)

-----Original Message-----

**From:** Bob Trollinger [mailto:robert.trollinger@swri.org]  
**Sent:** Tuesday, April 11, 2006 12:41 PM  
**To:** don.bannon@swri.org  
**Subject:** Out of tolerance

Reccomend remove from service. Let me know.

Thanks

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**S O U T H W E S T   R E S E A R C H  
I N S T I T U T E ®**

**To:** Don Bannon, Div 20, Ext 5118  
**From:** Institute Calibration Laboratory; Bob Trollinger  
**Date:** April 11, 2006  
**Subject:** Review of Work Request Number 303068735

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The work you requested is held pending your review. Please review the information provided and respond with your approval or further instructions for work to proceed. Return a signed copy via mail to Cal Lab Bldg 64, FAX (522-4834) or reply to this email. If you have questions or require additional information

4/12/2006

please call 522-5215.

Unit Received: April 7, 2006

Work Requested: Cal

Manufacturer: Fisher Scientific

Model: 15-166A

Description: Thermometer

Serial Number: C98-106

Asset Number: 7164

User ID:

Cause of Review: Unit is out of tolerance at 150°C The unit is not adjustable or repairable. Recommend it be limited or removed from service.

If no relpy has been received by April 17 the unit will be returned without action.

Approved ( ) Disapproved return unit as is ( )

Date: \_\_\_\_\_

Instructions ( )

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Authorized by \_\_\_\_\_

\_\_\_\_\_

Print or Type Name

Signature

Thank you for your timely response,

Walt Hill, Metrology Group Leader  
Institute calibration Laboratory