

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

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NONCONFORMANCE REPORT

Project No. 20-01402-571

NCR No. 2001-09

PART 1: DESCRIPTION OF NONCONFORMANCE

Thermometer H98-187 Model # 15-166A (Asset number 007165) was found to be out of tolerance during a normally scheduled calibration.

Initiated by: Darrell S. Dunn

Date: 5/8/2001

PART 2: PROPOSED DISPOSITION AND CORRECTIVE ACTION

Disposition:

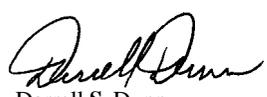
Accept data obtained in tests using this thermometer as is.

Basis of Disposition:

The thermometer had an error greater than 1.0 degrees at -20 and 150 °C. However, the thermometer was within calibration for the temperature range from 0 to 100 °C. Tests conducted with the thermometer were conducted in the range of 20 to 95 °C. Over this temperature range, the instrument error was, at most, 1.0 degrees. A 1.0 degree error in temperature is acceptable and in general an error in test temperatures of less than 2 °C will not adversely affect the parameters measured during testing.

Action to Correct Nonconformance:

Bubbles in the Mercury column were removed by SWRI calibration lab staff and the thermometers were recalibrated. A copy of the out of tolerance report was placed in the calibration records file. All laboratory staff will be instructed not to store or position thermometers horizontally. All thermometers should be positioned and stored vertically with the mercury bulb facing down.



Target date for completion: 5/14/2001

Proposed by: Darrell S. Dunn

Date: 5/8/2001

PART 3: APPROVAL

Element Manager: [Signature] Date: 5/8/01

Director of QA: [Signature] Date: 5/8/2001

Comments/Instructions:

Review of Thermometer Storage required.

PART 4: CLOSE OUT

Comments: *On 5/15/2001 a review was performed on the storage of laboratory thermometers. The review found the thermometers to be stored in the vertical position with the mercury bulbs facing down as described in the action to correct the nonconformance. No further actions required.*

Distribution:

- QA Records
- D. Dunn
- Element managers
- B. Sogam, H. Garcia
- M. Ehrstrom / 30

Verified by: [Signature] Date: 5/15/01

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OUT OF TOLERANCE

To: Darrel Dunn, Div 20, Bldg 57
From: Walt Hill, Institute Calibration Laboratory Supervisor
CC: Rodney Weber, Institute Quality Assurance Manager
Date: May. 1, 01
Subject: Out-of-tolerance Notice

OUT OF TOLERANCE

The purpose of this notice is to alert you of a condition, which could have caused erroneous measurements. The as-found readings are provided for your evaluation to determine if the instrument had any impact on your operations and if further action is required. If we can be of assistance, please contact the Calibration Laboratory at 522-5215.

OUT OF TOLERANCE

Manufacturer: Fischer Scientific Model: 15-166A
Description: Thermometer Serial Number: 198-187

OUT OF TOLERANCE

Asset Number: 7165 User ID Number:

Last Calibration: 4/18/00

Date Received for Service: Apr. 16, 01 Work Order Number: 14013353

OUT OF TOLERANCE

Service Requested: Calibrate before use

Remarks: Thermometer has partial separation of mercury . As Found taken in this condition.

OUT OF TOLERANCE

AS FOUND DATA

PARAMETER OR FUNCTION	APPLIED OR NOMINAL VALUE	INSTRUMENT READING	INSTRUMENT ERROR	INSTRUMENT TOLERANCE
Temperature	-19.440 Deg C	-20.8 Deg C	1.36 Deg C	+/- 1 Deg C
	0.000 Deg C	-0.7 Deg C	0.7 Deg C	+/- 1 Deg C
	50.000 Deg C	49.3 Deg C	0.7 Deg C	+/- 1 Deg C
	100.000 Deg C	99.6 Deg C	0.4 Deg C	+/- 1 Deg C
	149.966 Deg C	148.5 Deg C	1.46 Deg C	+/- 1 Deg C

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Reviewed by Walt Hill