

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

NONCONFORMANCE REPORT

Project No. 20-5704-041

NCR No. 95-05

PART 1: DESCRIPTION OF NONCONFORMANCE

Two Thermometers and off balance were found out-of-tolerance when recalibrated. See attached for details.

Initiated by: R. Brient

Date: 8/7/95

PART 2: PROPOSED DISPOSITION AND CORRECTIVE ACTION

Disposition:

Thermometers were not used for collecting data, so no test results were affected. Accept tests performed with balance as-is, since the extent of out-of-tolerance was not significant in light of accuracy needs.

See attached for more details.

Basis of Disposition:

See attached.

Action to correct nonconformance:

See attached.

Target date for completion: 8/7/95

Proposed by: Darrell Dunn

Date: 8/7/95

PART 3: APPROVAL

Element Manager: N. Sridhar Date: 8/9/95

Director of QA: Approved for submission Date: 8/9/95

Comments/Instructions:

PART 4: CLOSE OUT

Comments: *A log book will be provided to record weekly balance checks. It will be controlled as a Scientific Notebook*

Verified by: [Signature]


Date: 8/9/95

Distribution: QA records
D. Dunn
N. Sridhar
B. Sugar
B. Mabrato

MEMORANDUM

Date: 8/7/95

To: N. Sridhar, B. Mabrito

From: Darrell S. Dunn 

Subject: Out of Tolerance reports

Subject Two Kessler Thermometers serial No. 115880 and 115785 were found to be out of tolerance by 14 and 6 degrees respectively. The thermometers were observed to have "bubbles" in the mercury column and this resulted in the errors noted above.

Corrective action: The "bubbles" in the mercury column were a result of the thermometers being stored flat in a drawer after calibration. The subject thermometers were never used in actual tests in the IWPE program but were reserved as spares. All thermometers used in tests within the IWPE program are indicated in the laboratory notebook each time the thermometer is used. All thermometers stored in the drawers were removed and inspected. In the future, all thermometers will be stored upright to prevent the formation of bubbles in the mercury column.

Implication to previous tests: Since the thermometers were not used in any previous test the out of tolerance condition does not affect any previous test.

Subject Sartorius balance serial No. 10704379 was found during recalibration have a maximum error of 1.95 mg at 200 g. The weighing stage of the scale was also found to have debris from the weighing of powder reagents.

Corrective action: The balance was recalibrated and has previously been moved to a 3 month calibration interval. Personnel using the balance were informed of the out of tolerance condition and its probable cause. Efforts will be made by all personnel using the balance to protect it from spills during the weighing of reagents. In addition an ASTM class 1 weight is being purchased and will be calibrated to use as a test weight by personnel using the balance to verify its performance.

Implication to previous tests: It is not expected that a deviation of this magnitude will have any serious implication or introduce any serious error into previous tests which typically use reagent weights of 60 g or less. At these lower weights the error was found to be less than 1 mg. However, the corrective action outlined above should prevent errors of this magnitude from occurring again.

SOUTHWEST RESEARCH INSTITUTE
Department of Quality Assurance
Calibration Laboratory

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OUT OF TOLERANCE NOTICE

08/03/95

The following asset was found to be out of tolerance when submitted for calibration. Please be aware measurements made with this may be inaccurate.

INSTRUMENT INFORMATION

Issued to: DARRELL DUNN DIV20 B57 Asset Number: 002029
Manufacturer: SARTO Model Number: RC210P
Nomenclature: ELECTRONIC BALANCE
Serial Number: 10704379 SwRI Capital Number: NONE
Accuracy: MFGR SPECS Calibration Interval: 3 months

DEVIATION

Out of Tolerance Date: 08/02/95 Last Valid Calibration Date: 05/05/95

REMARKS

Standard	Balance reading	ERROR
200.00010g	199.99815	1.95 mg
149.99989g	149.99830	1.59 mg
99.99991g	99.99886	1.05 mg
69.99994g	69.99916	0.78 mg
49.99998g	49.99931	0.67 mg
9.99998g	9.99977	0.21 mg

The linearity of the balance is 0.15 milligrams.

Signed 

Checked by 

OUT OF TOLERANCE

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OUT OF TOLERANCE NOTICE

07/28/95

The following asset was found to be out of tolerance when submitted for calibration. Please be aware measurements made with this may be inaccurate.

INSTRUMENT INFORMATION

Issued to: DARRELL DUNN DIV20 B57 Asset Number: 003244
Manufacturer: KESSL Model Number: ASTM IC 76MM
Nomenclature: THERMOMETER
Serial Number: 115880 SwRI Capital Number: NONE
Accuracy: +/-1 DEG.C Calibration Interval: 12 months

DEVIATION

Out of Tolerance Date: 07/27/95 Last Valid Calibration Date: 07/22/94

REMARKS

Received instrument for calibration out of tolerance. Instrument under test was compared to temperature calibration standard and the following values were recorded. Instrument cannot be adjusted and will be removed from the calibration recall system.

STANDARD	INSTRUMENT UNDER TEST
0 DEG.C	6 DEG.C

Signed *[Signature]*

Checked by *[Signature]*

OUT OF TOLERANCE

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OUT OF TOLERANCE NOTICE

07/28/95

The following asset was found to be out of tolerance when submitted for calibration. Please be aware measurements made with this may be inaccurate.

INSTRUMENT INFORMATION

Issued to: DARRELL DUNN DIV20 B57 Asset Number: 003243
Manufacturer: KESSL Model Number: ASTM 1C 76MM
Nomenclature: THERMOMETER
Serial Number: 115785 SwRI Capital Number: NONE
Accuracy: +/- 1 DEG.C Calibration Interval: 12 months

DEVIATION

Out of Tolerance Date: 07/27/95 Last Valid Calibration Date: 07/22/94

REMARKS

Received instrument for calibration out of tolerance. Instrument under test was compared to temperature calibration standard and the following values were recorded. Instrument cannot be adjusted and will be removed from the calibration recall system.

STANDARD

INSTRUMENT UNDER TEST

0 DEG.C

14 DEG.C

Signed

Checked by

OUT OF TOLERANCE