

SOUTHWEST RESEARCH INSTITUTE

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To: Darrell Dunn, Div. 20/Bldg. 57

From: Walt Hill, Metrology Group Leader
Institute Calibration Laboratory

Date: Jun. 06, 2003

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: Control Company **Model:** 4085

Description: Thermohygrometer **Serial Number:** 21330180

Asset Number: 9502 **User ID Number:** None

Last Calibration: June 27, 2002

Date Received for Service: Jun. 02, 2003 **Work Order Number:** 444053961

Service Requested: Scheduled calibration

Remarks: Unit failed relative humidity tests.

OUT OF TOLERANCE

Southwest Research Institute
Calibration Laboratory
Calibration Report

Work Order	444053963	Mfr	Control Company	Tech:	Mark Romero
Asset No.	009502	Model	4085	Cal Date:	04-Jun-03
Serial No.	21330180	Type	Thermohygrometer		
Remarks:					

Function/Range	Test Point	TI Reading	Difference	+/-Limits	+/-Uncertainty	As Found
HUMIDITY	%RH	%RH	%RH	%RH	%RH	Results
	34.99	51.90	16.91	1.50	0.50	Fail
	50.01	69.47	19.46	1.50	0.50	Fail
	75.21	98.57	23.36	1.50	0.50	Fail
TEMPERATURE	Deg C	Deg C	Deg C	Deg C	Deg C	
	20.17	20.12	-0.05	0.20	0.16	Pass
	23.03	23.08	0.05	0.20	0.16	Pass
	24.94	25.05	0.11	0.20	0.16	Pass
END OF REPORT						

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

Memorandum

To: SwRI Calibration Lab

From: Lietai Yang

Date: June 16, 2003



Subject: Out-of-Spec Thermo-Hygrometers

The following thermo-hygrometers need to be removed from the calibration recall list. A copy of this memorandum will be placed in Division 20 calibration records for these 3 thermo-hygrometers.

Conrol Campoany, Model 4085, S/N 21330180

Conrol Campoany, Model 4085, S/N 21189381

Conrol Campoany, Model 4085, S/N 21334995

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES NONCONFORMANCE REPORT

Project No. 20.06002.01.071

NCR No. 2003-13

PART 1: DESCRIPTION OF NONCONFORMANCE

Thermohygrometers were found out-of-tolerance upon recalibration.
S/N 21330180 (AN 9502), S/N 21189381 (AN 8788), S/N 21334995 (AN 9503), S/N 21318178 (AN 9808)

Initiated by: L. Yang
Action Required by: L. Yang

Date: 6/25/03

PART 2: PROPOSED DISPOSITION AND CORRECTIVE ACTION

Response Due Date: July 9, 2003

Response Person: L. Yang

Disposition:
Accept as is.

Basis of Disposition:
No data are affected by the out-of-tolerance conditions. Readings from the hygrometers were not reliable, so they were not used since the previous calibration.

Action to Correct Nonconformance:
A new humidity chamber from Thunder Scientific has been purchased and will be used in future measurements
New thermohygrometers from Vaisala are being purchased.

Target date for completion: June 25, 2003

Proposed by: Lietai Yang

Date: June 25, 2003

PART 3: APPROVAL

Element Manager: *[Signature]* Date: 7/1/03
Director of QA: *[Signature]* Date: 7/1/03
Comments/Instructions:

PART 4: CLOSE OUT

Comments:
Action Complete

Verified by: *[Signature]* Date: 7/1/03

Distribution:
Original-CNWRA QA DIRECTOR/QA Records
ORIGINATOR - *L. Yang*
~~PRINCIPAL INVESTIGATOR(S)~~ *LSB*
ELEMENT MANAGERS
B. Sagar, and P. Mackin
L. Yang LSB