

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

60,
/93

NONCONFORMANCE REPORT

Project No. 20-01402-571

NCR No. 2001-04

PART 1: DESCRIPTION OF NONCONFORMANCE

Thermocouple meter Omega model HH22 Serial # T-94140 (Asset number 001997) was found to be out of tolerance during a normally scheduled calibration.

Initiated by: Phyllis Dunn

Date: 2/23/01

PART 2: PROPOSED DISPOSITION AND CORRECTIVE ACTION

Disposition:

Accept data obtained in tests using this thermocouple meter as is.

Basis of Disposition:

The thermocouple meter is within calibration from -50 to 700 °C. The unit was found to have a measurement error of -1.0 °C at a temperature of -200 °C. Materials test within the NRC program are not performed at temperatures less than 0 °C. In addition, an error in test temperatures of less than 2 °C will not adversely affect the parameters measured during testing.

Action to Correct Nonconformance:

The thermocouple meter was adjusted and was recalibrated to within manufactures tolerances. A copy of the out of tolerance report was placed in the calibration records file.

Target date for completion: _____

Proposed by: Phyllis Dunn

Date: 2/26/01

PART 3: APPROVAL

Element Manager: Phyllis Dunn

Date: 2/27/01

Director of QA: Phyllis Dunn

Date: 2/27/2001

Comments/Instructions:

PART 4: CLOSE OUT

Comments:

Copy of the out of tolerance report is located in the calibration records file. Thermocouple meter has been recalibrated and is currently in use.

Verified by: Mark R. Ehustrom

Date: 2/27/01

Distribution:

D. Dunn

M. Ehustrom

S. Bossia

All Element managers

B. Sagar, H. Garcia, G. MABRITO

Original To NCR Folder

SOUTHWEST RESEARCH INSTITUTE

6220 CULEBRA ROAD • POST OFFICE DRAWER 28510 • SAN ANTONIO, TEXAS, 78228-0510 • TEL (210) 522-5215 • FAX (210) 522-3692

To: Darrell Dunn, Div.20, Bldg. 57
From: Walt Hill, Institute Calibration Laboratory Supervisor
CC: Rodney Weber, Institute Quality Assurance Manager
Date: Jan. 15, 01
Subject: Out-of-tolerance Notice

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.

Manufacturer: Omega Model: HH22

Description: Microprocessor Thermometer Serial Number: T-94140

Asset Number: 1997 User ID Number: None

Last Calibration: Dec. 15, 99

Date Received for Service: Jan. 12, 01 Work Order Number: 444042030

Service Requested: Scheduled calibration

Remarks: None

AS-FOUND DATA

PARAMETER OR FUNCTION	APPLIED OR NOMINAL VALUE	INSTRUMENT READING	INSTRUMENT ERROR	INSTRUMENT TOLERANCE
Temperature				
T1	-200 Deg.C.	-199.0 Deg.C.	-1.0 Deg.C.	0.8 Deg.C.
T2	-200 Deg.C.	-199.1 Deg.C.	-0.9 Deg.C.	0.8 Deg.C.

CALIBRATION CHECK FORM

62/93

Date Calibrated 15 JAN 01

Work Order 444042030

Cal By V. Monds

Procedure No./Date: CL-26, MAY 99

Unit Under Test: MICROPROCESSOR THERMOMETER

Mfg: OMEGA

Model: HH22

SN T-94140

AN 1997

STEP	FUNCTION OR RANGE	APPLIED	TOLERANCE		MEASURED VALUES		P/F
			MIN	MAX	AS FOUND	RELEASED	
4.1	TEMPERATURE						
	CALIBRATION						
	TYPE J-TC	T1	°C				
	-210 TO 760 DEG.C						
	-7.890mV	-200°C	-199.2	-200.8°C	-199.0°C	-200.1°C	F
	-2.431mV	-50°C	-49.3	-50.7°C	-49.5°C	-50.0°C	
	5.269mV	100°C	99.3	100.7°C	100.4°C	100.0°C	
	16.327mV	300°C	299.1	300.9°C	300.3°C	299.9°C	
	39.132mV	700°C	698.7	701.3°C	700.2°C	699.8°C	
4.1.8	AMBIENT ROOM						
	TEMPERATURE	27/78					
		(25)°F	+/- (1% + 1 °F)		76.5	78.1	
	TEMPERATURE						
	CALIBRATION						
	TYPE J-TC	T2	°C				
	-210 TO 760 DEG.C						
	-7.890mV	-200°C	-199.2	-200.8°C	-199.1°C	-199.9°C	F
	-2.431mV	-50°C	-49.3	-50.7°C	-49.5°C	-49.9°C	
	5.269mV	100°C	99.3	100.7°C	100.4°C	100.1°C	
	16.327mV	300°C	299.1	300.9°C	300.3°C	299.9°C	
	39.132mV	700°C	698.7	701.3°C	700.1°C	699.8°C	

63/93

Cal By UMarch

Unit Under Test: MICROPROCESSOR THERMOMETER

SN F94140 AN 1997

Page 2 of 2