

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

NONCONFORMANCE REPORT

Project No. 20-5704-041

NCR No. 95-02

PART 1: DESCRIPTION OF NONCONFORMANCE

The ABB Plotter Model SE 120, s/n 0515265, was found out of tolerance when calibrated on 5/2/95. The lower pen error (voltage) was 0.55%, with a tolerance of 0.5%, and the Suppression error was 0.50% to 0.75%, with a tolerance of 0.20% of setting.

Initiated by: R. Brient *RB*

Date: 5/10/95

PART 2: PROPOSED DISPOSITION AND CORRECTIVE ACTION

Disposition:

Continue using the strip chart recorder in conjunction with other calibrated instruments (see memo attached). The ~~current~~ data acquired thus far are not affected by the out of tolerance finding.

Basis of Disposition:

see memo attached

Action to correct nonconformance:

None needed.

Target date for completion: _____

Proposed by: *N. Frickel*

Date: *5/16/95*

PART 3: APPROVAL

Element Manager: *N. Frickel*

Date: *5/14/95*

Director of QA: *Sam Mahabadi*

Date: *5/16/95*

Comments/Instructions:

PART 4: CLOSE OUT

Comments:

No other action required. MAINTAIN AS A 3-PAGE QA RECORD TO DOCUMENT POSITION.

Verified by:

Sam Mahabadi

Date:

5/16/95

SOUTHWEST RESEARCH INSTITUTE
Department of Quality Assurance
Calibration Laboratory

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OUT OF TOLERANCE NOTICE

05/02/95

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: 002292
Manufacturer: ABB Model Number: SE 120
Nomenclature: PLOTTER
Serial Number: 0515265 SwRI Capital Number:
Accuracy: MFRG SPECS Calibration Interval: 12 months

DEVIATION

Out of Tolerance Date: 05/02/95 Last Valid Calibration Date: 04/05/94

REMARKS

LOWER PEN

Range	Tol.	As Found	Error	Released
50.0 mV	0.5% of Range	50.29 mV	0.55 %	50.11 mV
2.0 V	0.5% of Range	2.011 V	0.55 %	2.005 V

Suppression

-1 x 100 %	0.20 % of Setting	10.050 mV	0.50 %	10.005 mV
-2 x 100 %	0.20 % of setting	20.015 mV	0.75 %	20.040 mV

Adjusted span and suppression pots to read within mfg spec's.
All other specifications were within tolerance.

Signed Anthony Placencia

Checked by Walt Hill

OUT OF TOLERANCE

MEMORANDUM

Date: 5/12/95

To: N. Sridhar

From: Darrell S. Dunn 

Subject: Nonconformance report # 95-02

Subject Chart recorder is not used to make measurements but is used to record the out put of another calibrated instrument such as an Orion pH meter model # 940 or an electrometer output such as a Keithley model **617** which are calibrated. The model and serial # of the instrument used is recorded in the laboratory notebook. The recorders are never used as a stand alone device to make measurements and only serve as a convenient way to record the analog output of the measuring instrument.

The accuracy needed by the recorders depends of course on the type of measurement being conducted. For open circuit measurements the 0.55% error on a 1.0 V scale translates to less than 3 mV. For pH measurements conducted with the recorder on the 1.0 V scale would translate to an error of 0.05 pH. Typically, the pH recorded by the strip chart recorder is "read" from the chart in 0.1 pH increments. Likewise, for open circuit measurements the minimum increment "read" from the chart is 5 mV. No tests have been conducted with these recorders serving as the data acquisition system where the data collected was required to have an accuracy of better than 1 mV.

On the basis of the required accuracy for the measurements conducted in which this chart recorder serves as the data acquisition system, I suggest that we continue to use a calibrated instrument continuously so that we can have a real time check of the measurements as they are recorded. It does not seem prudent at this time to increase the frequency of calibration in light of our rather limited use of this instrument, and its previous performance.


5/16/95