SMR

RCA Form

TRACKING NUMBER: 683989 **Critical NC** ☒ **Noncritical NC** ☐

CALIBRATING TECHNICIAN: **Kevin Miller** **Technician Risk Rating: 2**

DATE OF REVIEW 02-Dec-21	**QAT** Darryl Hewitt		**TYPE OF REVIEW** **Targeted QR**
LABEL NUMBER **M145410**	**PART NUMBER** **IQ-610**		**JCN** **20211116PA2020**
NOMENCLATURE **INDOOR AIR QUALITY MONITOR**	**Equip Reliability %** **60**	**Equip Risk Rating** **5**	**K-PROCEDURE** **33K6-4-3421-1**

QNC/PNC Code Selected

A04 : The item does not meet calibration tolerances/uncertainties for all parameters certified.

Nonconformity (State the NC; be clear and concise): With 5.613°C applied to the TI, the TI indicated 6.0°C for a +0.387°C difference from the standard. The accuracy allowed is ±0.3°C. Ref; Table 1 (AFCAV).

Background *(optional -if needed to describe the situation leading up to NC):* Originally the item selected by PAMS for calibration was the meter (M601169) needed to perform the calibration IAW the calibration procedure 33K6-4-3421-1. However the meter does not have a calibrated, function, range, or accuracy, of its own, listed. And requires an attached probe to facilitate compliance of all steps of the calibration authority. So, this TMDE was selected for a Targeted Quality Review (TQR). The Temperature Range is OWC approved limitation of 5.0°C to 60.0°C

QAT observations made while observing the suspect process. This is mandatory for every critical NC identified during a QR. Do not divulge the nonconforming condition. During the PR portion of the process the Technician confirmed the OOT condition.

NC Code Risk Rating: 5

PROCESS/ROOT CAUSE ANALYSIS

RCA meeting will include the Quality Assurance Technician, Lead Technician and Technician who performed the work. Other parties may participate in the RCA if appropriate.

List the root causes possible for this nonconformity:

1. F01 : Component failure caused degradation or hard failure (normal process would not find).
2. H01 : Human error: When all equipment, technical data, training and other factors are adequate. When another
3. H02 : Improper Action: When all equipment, technical data, training and other factors are adequate. The
4. T01 : OJT insufficient (trainer demonstrates task proficiency)

Identify the most likely root cause from the possible causes and explain why you selected it.

Root Cause Code selected: H01 : Human error: When all equipment, technical data, training and other factors are adequate. When another

Reason for selection: In this case it wasn't the technician's training that had caused the nonconformity. It was the fact he was training another technician in the temperature discipline and skipped over some of his own personal processes. Throughout the calibration of the item the process owner had the training technician record the readings and had him decide if the item met or exceeded specifications. The training technician indicated that the item did meet specifications. In this case the process owner took a mental note of the in-tolerance, at the limits, indication. Normally the process owner indicated that he would circle any recorded indications that he felt would require adjustment. However, during the training he did not perform his normal process. After completing other calibrated functions of the TI (Gas Detection and Humidity) and making several adjustments to those he forgot about the, at the limits indication for 6.0°C. He did not see his circle, because it wasn't there. Selected.

RC Code Risk Rating: 1

Explain why you eliminated the other root causes <u>if there was more than one possibility</u>:

1. F01 : Component failure caused degradation or hard failure (normal process would not find). Considered the possibility that after the original calibration, that maybe, a component had become degraded or gone bad. Not selected. The technician verified that during the original calibration the values recorded were at the accuracy limits. Standard applied 6.0°C, TI indicated 6.3°C for an allowable accuracy of ±0.3°C. After returning the item to the technician for repair, the technician was able to adjust the item to be within the limits.

2. H02 : Improper Action: When all equipment, technical data, training and other factors are adequate. The Not selected. During the original calibration the technician's readings did meet the AFCAV accuracy requirements of ±0.3°C, though right on those limits. There is no evidence that the technician disregarded policy.

3. T01 : OJT insufficient (trainer demonstrates task proficiency) T01 – Considered the possibility that the technician was unaware that the item was adjustable. This was not the case, he was able to provide guidance to the adjustment procedure in the manual and software on the TI. Technician indicated that he was aware that an item right at or near the limits should be optimized. Especially for an item listed as only having a 60% risk reliability. The technician has completed other Reviews in this discipline area. There are no concerns with his ability to make measurements.

Cite your corrective action/solution <u>for the nonconformity</u> and explain why you selected it: Item was returned to INW. Technician has made adjustments to the temperature for values well within specifications.

Was the corrective action fully accomplished? Yes ☒ No ☐

If no, was follow-up action added to the QSL under the follow-up tab? Yes ☐ No ☐

Additional Info:

Overall Nonconformity Risk Assessment: 13

<u>Preventive Action:</u>

☐ Preventive Action required, Explain why:

☒ Preventive Action not required, Explain why: Each technician has their own process to ensure that the certified meets the authority range function and accuracies. It would be impossible create a preventative action to reduce this type of risk, other than reminders through post interviews and monthly briefings. And they are already being accomplished.

Was the Preventive Action fully accomplished? Yes ☐ No ☐

If no, was follow-up action added to the QSL under the follow-up tab? Yes ☐ No ☐

Additional Info:

<u>Recall Determination:</u>

☐ Recall required, Explain why:

☒ Not required, Explain why: There are only two items in the Air Force inventory with this part number. This one, and one at Elmendorf AFB. Other like items were not being used for training, so the technician's normal process can be assumed.

If recall is required was the follow-up action added to the QSL under the follow-up tab? Yes ☐ No ☐

Signatories:

12/20/2021

X

Kevin Miller
Process Owner
Signed by: MILLER.KEVIN.DOUGLAS.1208505935

12/17/2021

X

Darryl Hewitt
Quality Assurance Technician
Signed by: HEWITT.DARRYL.L.1027279186

1/3/2022

X Peter Newlun

Peter Newlun
Technologist/Lead Technician
Signed by: NEWLUN.PETER.L.JR.1089347382

Site Manager

Measurement Area Assessment:

Did critical nonconformity increase the Risk Level of the Measurement Area? Yes ☐ No ☒

Explain:

Other PMEL Manager Comments: This certainly appears to be an H01 to me. No other comments.

1/3/2022

X

Brian MacDonald
Patrick SFB PMEL Manager
Signed by: MACDONALD.BRIAN.W.1039515128