

July 31, 2018

Comments on NCWM S&T Items LPG-3 and MFM-5

Submitted by Seraphin Test Measure Company

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1. The proposed term “field standard reference meter” is a new term for what is proposed to be a field standard or a transfer standard. The term conflicts with what OWM has proposed in the Block 1 items. There is no need to add another new term for meters that are proposed to be either field standards or a transfer standards.
2. No data have been submitted to prove that the meters proposed as field standards can meet the performance requirements for field standards. Until data are submitted over the range of parameters for which it will be used, the proposals should be withdrawn.
3. In 2016, the submitter proposed that the LPG and Anhydrous Ammonia Code be changed to specify test drafts of at least two minutes at the maximum flow rate when a transfer standard [meter] is used.
 - a. The justification for the longer test drafts was as follows. **“In some applications, transfer standard meters are not more accurate than the meters used in the dispenser. For that reason, longer test drafts and possibly more tests need to be run.”**
 - b. In 2018, the submitter changed to proposal so that the size of the test draft be stated as: **“...The minimum quantity for any test draft shall be equal to or greater than the amount delivered in one minute at the flow rate being tested.** Why are the meters suddenly capable of performing so much better? No explanation or justification was given as to why the size of the test drafts should be reduced when a meter is used as the reference standard.
 - c. In 2018, the size of the test draft when a meter is used as the reference was smaller than the test draft specified in the current N.3. when a field standard is used. **“Test drafts shall be equal to at least the amount delivered by the device in one minute at its normal discharge rate.”** (Emphasis added.) When using a reference meter, why should the test draft be smaller than when a field standard is used? No analysis or justification has been given to reduce the size of the test draft to one minute at the flow rate being tested. Remember in 2016, the submitter said that larger test drafts were needed.
 - d. Until an analysis of the variables and data are provided that prove that the uncertainties associated with the “field standard reference meter” can function as well or and better than a field standard (since the size of the test draft would be smaller for a meter as a reference standard), this item should be withdrawn or kept in a developing status.
4. Until all of the related S&T issues dealing with field standards and transfer standards are resolved, these items should remain developing.