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National Conference on Weights and Measurements

Attn: Mr. Loren Minnich

1320 Research Park Drive

Manhattan, KS 66502

Ref: Proposal WTR-21.1 to the S&T Committee

Dear Mr. Minnich:

I am on the Executive Staff of one of the major American water meter manufacturers. The American Water Meter Manufacturers are aware of the above new Proposal WTR-21.1 in the coming NCWM meetings in the regional Specifications and Tolerances Committee agenda. My company DOES NOT support this proposal as it is unnecessary.

From what I have read on this matter, it proposes a solution to a non-existent problem in America's water distribution network. Our American water distribution systems are most commonly a piping system of mains and service lines that are pressurized 7/24/365 by a connecting network of elevated storage tanks. The problem with reoccurring entrained air is with systems that are not pressurized continuously; in these non-continuous systems, 24 hour water needs are commonly met by individual roof / attic mounted storage cisterns fed when needed from float-controlled pressurized lines that refill the cisterns when pressurized supply is on-line. That transmission system design can result in air initially entrained in the service lines unlike that in our systems. I have an ME degree and 50 years of flow measurement experience; I know that the Proposal's listed justification is seriously wrong in suggesting turbulent flow creates entrained air.

There are several residential devices that deliver flow totals based on time rather than being controlled by an expected volume. The totalized flow then is highly dependent on the fixture supply inlet pressure. These devices include dishwashers, laundry equipment and some shower / bath faucets that are commonly used in the full open position until closed off either manually or by a time signal. These devices would result in a reduced totalization if the service line pressure was reduced by installation of a device as proposed in the Proposal WTR-21.1. In effect, the device acts in the same technological manner as a common water pressure regulator being adjusted to lower the user's delivered water pressure.

Please contact me if this matter needs additional discussion. I can be reached by telephone at 412-551-2663 or at email rkoch@mastermeter.com.

Thank you.

Ron Koch
Master Meter, Inc., Advisor to the President/CEO

Cc: Don Onwiler, NCWM

Kristen Macy, CA Division of Measurement Standards