



GOVERNOR'S OFFICE OF BUSINESS AND ECONOMIC DEVELOPMENT

STATE OF CALIFORNIA ♦ OFFICE OF GOVERNOR EDMUND G. BROWN JR.

July 1, 2016

Mahesh Albuquerque  
Chair, NCWM Specifications and Tolerances Committee  
Director, CDLE-Oil and Public Safety  
633 17th Street, Suite 500  
Denver, CO 80202

Don Onwiler, Executive Director  
National Conference on Weights and Measures  
1135 M Street, Suite 110  
Lincoln, NE 68508

Re: NCWM S&T Item 3392 Table T.2. Accuracy Classes and Tolerances for Hydrogen Gas Measuring Devices

Dear Mr. Albuquerque and Mr. Onwiler:

The California Governor's Office of Business and Economic Development (GO-Biz) supports the proposal put forth by the Department of Food and Agriculture, Division of Measurement Standards (CDFA, DMS) to modify/amend Section 3.39. Hydrogen Gas Measuring Devices Tentative Code in the National Institute of Standards and Technology (NIST) Handbook 44 (HB 44), Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices by adopting California's expanded accuracy classes for retail gaseous hydrogen fuel dispensers.

Specifically, this proposal will add three Accuracy Classes: 3.0, 5.0, and 10.0. This will expand the acceptance and maintenance tolerances since current hydrogen gas measuring devices cannot comply with the tolerances listed in Table T.2 of this code. In addition, this proposal limits the timeframe of applying these expanded tolerances based upon the device's accuracy class.

In 2012, California Governor Jerry Brown issued Executive Order B-16-12 directing state government to help accelerate the market for zero-emission vehicles (ZEVs) in California. This Executive Order set an ambitious goal of 1.5 million ZEVs in California by 2025. Accelerating the market for ZEVs such as hydrogen fuel cell vehicles is a cornerstone of California's long-term transportation strategy to reduce pollution and greenhouse gas emissions. California is the initial location for deployment of hydrogen fuel cell vehicles and infrastructure for the U.S.<sup>1</sup> To support

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<sup>1</sup> <http://www.arb.ca.gov/msprog/zevprog/zevprog.htm>



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this commercial rollout the California Governor's Office developed a ZEV Action Plan<sup>2</sup> that specifically directs the state to:

“Enact necessary legislation, regulations, standards or certifications to enable hydrogen to be sold commercially on per kilogram basis...Investigate possible interim solutions in advance of permanent regulatory changes, including temporary site certification and relaxing accuracy requirements for hydrogen dispensers.”

To address this need for additional short term accuracy classes and fulfill the governor's edict, proposals for hydrogen gas measuring devices were filed with the Secretary of State and were effective as of June 16, 2014.<sup>3</sup>

While the CDFA, DMS promulgated regulations to facilitate the commercialization of hydrogen fuel for California, the same actions are needed for the rest of the U.S. On October 24, 2013, the governors of eight states signed a memorandum of understanding (MOU) committing to coordinated action to ensure the successful implementation of their state ZEV programs.<sup>4</sup> As stated in a recent U.S. Department of Energy Request for Information: High Accuracy Hydrogen Meters (DEFOA0000753, MODIFICATION 001, August 29, 2012):

“In order to enable the commercialization of hydrogen, fueling equipment that meets measurement standards must be available to sell hydrogen fuel to the public by weight or volume. Based on available information, no commercially available devices are capable of meeting the National Institute of Standards and Technology's (NIST's).”

GO-Biz believes that it is imperative that the U.S. National Work Group for the Development of Commercial Hydrogen Measurement Standards support this proposal and NCWM act now to adopt these additional Accuracy Classes and respective expanded tolerances so that existing hydrogen gas measuring devices may be approved for commercial service throughout the U.S. and in preparation for the next deployment of retail hydrogen fueling stations.

Sincerely,

A handwritten signature in black ink, appearing to read "Tyson Eckerle".

Tyson Eckerle  
Deputy Director  
ZEV Infrastructure, GO-Biz

<sup>2</sup> [https://www.opr.ca.gov/docs/Governor's\\_Office\\_ZEV\\_Action\\_Plan\\_%2802-13%29.pdf](https://www.opr.ca.gov/docs/Governor's_Office_ZEV_Action_Plan_%2802-13%29.pdf)

<sup>3</sup> <https://www.cdca.ca.gov/dms/regulations.html>

<sup>4</sup> [www.zevstates.us](http://www.zevstates.us)