



**Tom O'Banion**  
Director, SMV Marketing  
Micro Motion Inc.

**Emerson Process  
Management**  
7070 Winchester Circle  
Boulder CO 80301

T 1 (303) 530 8210  
Tom.obanion@emerson.com

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Subject: Micro Motion Recommended Calibration Practices for Coriolis meters used to comply with USA EPA 40 CFR part 98, Green House Gas

This document defines the official Micro Motion Inc (MMI) “manufacturer recommended practice” to assist users in their compliance with EPA regulations governing Green House Gas measurement points. It is suggested that users retain a copy of this document in their compliance files.

1. **Initial baseline calibration:** All meters produced by Micro Motion (MMI) are factory calibrated in a NIST-traceable laboratory. This water calibration has been proven to calibrate to all fluids, including gases (see AGA-11/API MPMS Chapter 14.9, at [www.aga.org](http://www.aga.org)). Calibration sheets are shipped with each meter, and a copy retained by serial number at the factory. This documentation is sent with each meter, and a copy retained at MMI. Documentation is also available showing NIST and ISO17025 traceability.

2. **In-use Calibration Technique and Frequency:**

**New Applications:** MMI recommends the purchase and installation of meters with on-board Smart Meter Verification (SMV). SMV is “manufacturer recommended practice” and can be run as frequently as the user desires. We suggest a once per quarter verification to establish a robust set of data. In the unlikely event the meter were to “fail” the SMV, repeat the SMV two additional times, and if there are 3 out-of-spec data points, then a “wet-calibration” is warranted. Data shows that if the meter passes SMV, then it is within manufacturer specification, which is well within the requested GHG accuracy requirements (5% for most applications), and a wet-cal is not needed. Wet-cal options include a) NIST-traceable master meter, b) “catch-and-weigh”, c) return to MMI factory or c) a third party lab such as CEESI or SwRI.

**For existing applications:** where the application warrants, MMI recommends upgrade per above. If the installed meter is an Elite, F or H-series meter with 800 ECP, then a software upgrade to add MV may be performed in the field, in-situ by a trained and factory certified Micro Motion Service Technician. If the meter is of other vintage, and the process is continuous, MMI recommends upgrade to a meter with SMV for the previously cited reasons. If the process does not warrant this investment, then MMI recommends the customer follow traditional wet-cal methods including “catch & weigh” or “master meter”. Once per 5 years is suggested, unless the application is highly corrosive (known material compatibility issues) and the meter is viewed as a “consumable”. In those rare applications, once per year is suggested.

Note that retrofits via the wireless Emerson THUM adapter can be used to remotely activate Meter Verification and unlock trapped diagnostics useful for process troubleshooting. For more information, please feel free to contact your local Sales Representative, or me directly

Sincerely,

*Tom O'Banion*  
Director, SMV Industry Marketing  
Micro Motion Inc.  
Tom.o'banion@emerson.com  
(303) 530-8210