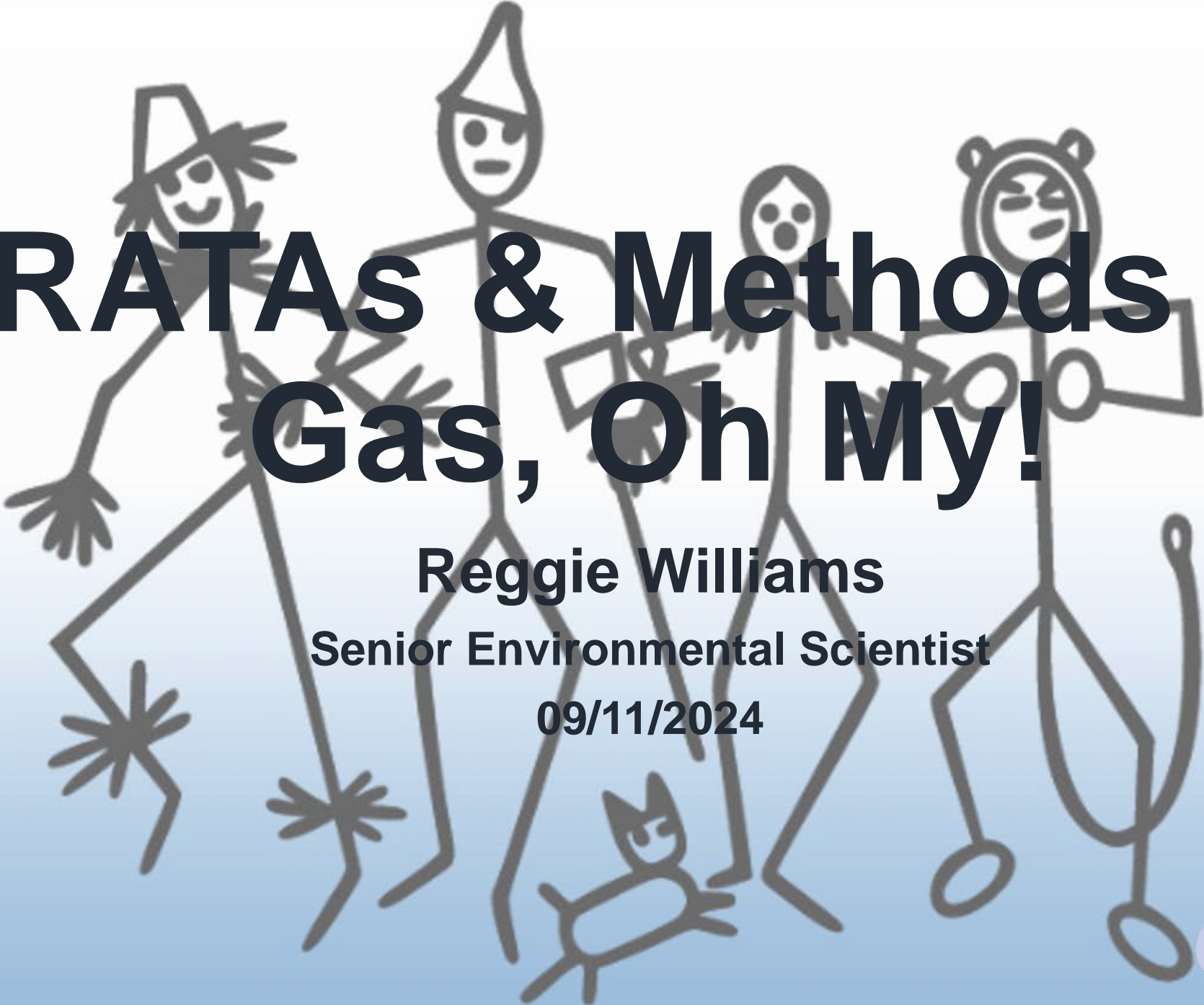


Clearing the Air: Regulatory Clarifications

A light gray line-art illustration of a family of six stick figures. From left to right: a woman with a pointed hat, a man with a pointed hat, a woman with a surprised expression, a man with a bear-like hood, a small child, and a dog. The figures are drawn in a simple, whimsical style.

RATAs & Methods & Gas, Oh My!

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09/11/2024

CISCO

RATAs: Reminders & Notes

- The NO_x system in ECMPS includes the NO_x and O₂ analyzer. If just the O₂ analyzer is replaced a RATA is required on the NO_x system.
- A grace period RATA does not extend when the next RATA is required. If your RATA is due in Q3 2024 and a grace period RATA is performed in Q4 2024, the next RATA is still required in Q3 2025.
- However, you can use another grace period and perform the RATA in Q4 2025.
- Individual RATA run average loads needs to be within one of the two normal operating levels designated in Part 75 Monitoring Plan (not just the load average of the entire RATA).

RATAs: Reminders & Notes (continued)

- If permit allows Part 75 as an alternative to Part 60 and the QA/QC Plan specifies Part 75 QA then a Part 60 RATA isn't required.
 - Data is validated based on Part 75 QA criteria, including compliance strategies and grace period.
 - No backwards invalidation which could invalidate major tests.

& METHODS: NO_x vs. NO Mode (or Much ado About Nuttin')

- On 09/20/2022 the Part 75 Emissions Monitoring Technical Q&A 9.34 was updated:
 - "...you must compare the same gas constituents, that is, you must compare the certified NO concentration to the analyzer NO concentration response or the certified NO_x concentration to the analyzer NO_x concentration response. ***Therefore, for NO_x analyzers that measure total NO_x, if NO_x is the target value then the NO_x analyzer needs to operate in the NO_x measurement mode and if NO is the target value then the NO_x analyzer needs to operate in the NO measurement mode...***"

& METHODS: NOx vs. NO Mode (continued)

- The problem of principle versus practice:
 - When an analyzer is calibrated in NO mode, the resultant coefficient only impacts the NO data when in sample mode. Likewise, when an analyzer is calibrated in NOX mode, the resultant coefficient only impacts the NOX data when in sample mode.

& METHODS: NO_x vs. NO Mode (continued)

- EPA clarification to CiSCO:

If you calibrate in the NO_x mode, using the certified NO value or the certified NO_x value continue to sample in the same mode (NO_x) that was used for calibrations. This may contradict 9.34 but EPA doesn't see the downside to this answer. Now if you calibrate in NO mode for a NO target value, EPA concurs with Q/A 9.34 that you must continue to measure in an NO mode. You should not be by-passing the convertor to target a NO value and then turn the convertor back on after a calibration. ***Back where we started from...much ado about nuttin'!***

& GASES:

NOx vs. NO Mode (continued)

- A short history on NO₂-in-N₂ EPA protocol gas
 - On 02/25/2022 EPA Ambient Air Monitoring Group and Air Methods and Characterization Division published a memo notifying specialty gas producers to cease certifying NO₂-in-N₂ as EPA Protocol Gases until their long-term stability has been demonstrated to EPA.
 - Some gas producers still provide certificates of analysis (COA) that indicate NOx is certified.
 - Q/A 9.34 presumes that NOx can be certified.
 - EPA CAMD continues to allow the use of NOx values if the COA indicates it is certified.

OH MY! (or OTHER STUFF!)

7-Day Calibration Error Test

- While unit is shutdown (offline) it is permissible to check the calibration of the analyzer and adjust it while the unit is still shutdown. Perform a subsequent calibration after adjustments.
- When operating consecutive days try to space calibrations by 24 hours although it's a recommendation not a requirement from EPA.
- [CiSCO 75% Recommendation-18 hours]
- If analyzer adjustments are made after a passing calibration in an effort to get to target value, it is CiSCO's stance based on EPA language that this a diagnostic test. Any time subsequent testing time requirements (24-hour or 7-day drift is based on the original calibration).
- Any combustion of fuel during the day counts as an operating day. If there's any operation in the day an online calibration is needed.



OH MY! (continued)

New Stuff

- New...ish
 - CiSCO Instrument Air Methodology (EPA Approved)
 - 40 CFR 60 Equipment Compliance Guidelines
[<https://ciscocems.com/part-60-equipment-compliance-guidelines/>]
- Potentially New Issues for the future [40 CFR 60, App. A Method 3A,7E, 10, 20].
 - NO₂ Converter Efficiency Check
 - Interference Check
 - System Bias Test
 - System Response time
 - *Temperature Responsive Calibration Methodology*
 - *Canada: AEP & 1/PG/7*

Questions?

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