IMPACTS OF RECENT U.S. EPA REGION 6 GUIDANCE ON CMS DOWNTIME AND HOURLY CALCULATION

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Your environmental compliance is clearly our business.

**Terminology – Emissions Standard**

- **Numerical Value**
  - Form (i.e., units)

- **Compliance Demonstration**
  - Means of Compliance (i.e., CMS, Emissions Testing, etc.)
  - Calculation Methodology

- **Averaging Period**
  - Validation Criteria
Emissions Standard – Example

- Numerical Value – 5
  - Form (i.e, units) – ppmvd TRS @ 8% O₂

- Compliance Demonstration – TRS/O₂ CMS
  - Calculation Methodology – §60.284(c)

- Averaging Period – 12-hour block average
  - Validation Criteria – Any valid 1-hour averages during the 12-hour block constitutes a valid 12-hour block.
  [ADI Control No. 9600133]
Regulatory Background

- CEMS
- Build Base Average
- Measured CMS Data
  - Excluded from Compliance Demonstration
    - Bad
    - Good
    - Calculation
      - Express in Terms of the Emissions Standard
        - Bad
        - Good
  - Validation
    - Compliance Average
      - Bad
      - Good
- Compliance Demonstration

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Guidance Timeline

- **April 18, 2017** – ODEQ requested clarification from U.S. EPA Region 6 on:
  1. Reporting of CMS Downtime
  2. Calculation of an Hourly Average

- **June 26, 2017** – U.S. EPA Region 6 responded to ODEQ (in coordination with OECA & OAQPS)
ODEQ Concern – CMS Downtime

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Hourly Validation Example

- A valid hour is at least one reading in each quadrant of the hour. The unit operated the entire hour, and there was no required maintenance or quality assurance activity conducted in this hour.

36 Invalid Minutes

**VALID HOUR**

Why: At least one valid reading in each quadrant of the hour
Impacts on Compliance

- U.S. EPA Region 4 CEM Enforcement Plan (May 5, 1989)
  - Percent Time Out-of-Compliance (TOOC)

\[ TOOC = \frac{\text{Time with Excess Emissions}}{(\text{Total Operation Time} - \text{Monitor Downtime})} \]
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Regulatory Background

1. **Hourly Average**
   - CEMS
   - Build Base Average
     - Validation
       - Good
       - Bad
         - Excluded from Compliance Demonstration
       - Calculation
         - Good
         - Express in Terms of the Emissions Standard
         - Compliance Average
           - Validation
             - Good
             - Bad
               - Unable to Demonstrate Compliance in Terms of the Emissions Standard
             - Reportable CMS Downtime
               - Compliance Demonstration
ODEQ Concern – Hourly Averages

- Hourly average based on:
  - 4, 15-minute quadrant averages collected during a clock hour OR
  - 60, 1-minute averages collected during a clock hour

- U.S. EPA Region 6 Response
  - Using the quadrant average “appears to be improper data reduction”
Additional Impacts

- Compliance
- Enforcement
- DAHS Vendors
- Reporting Procedures
What’s Next?

- Future publication in ADI (Federal Register notice)
- Working with U.S. EPA to resolve interpretation
  - Directly
  - Trade Organization
  - Legal
- Do you know how this impacts your facility?
Questions

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