

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

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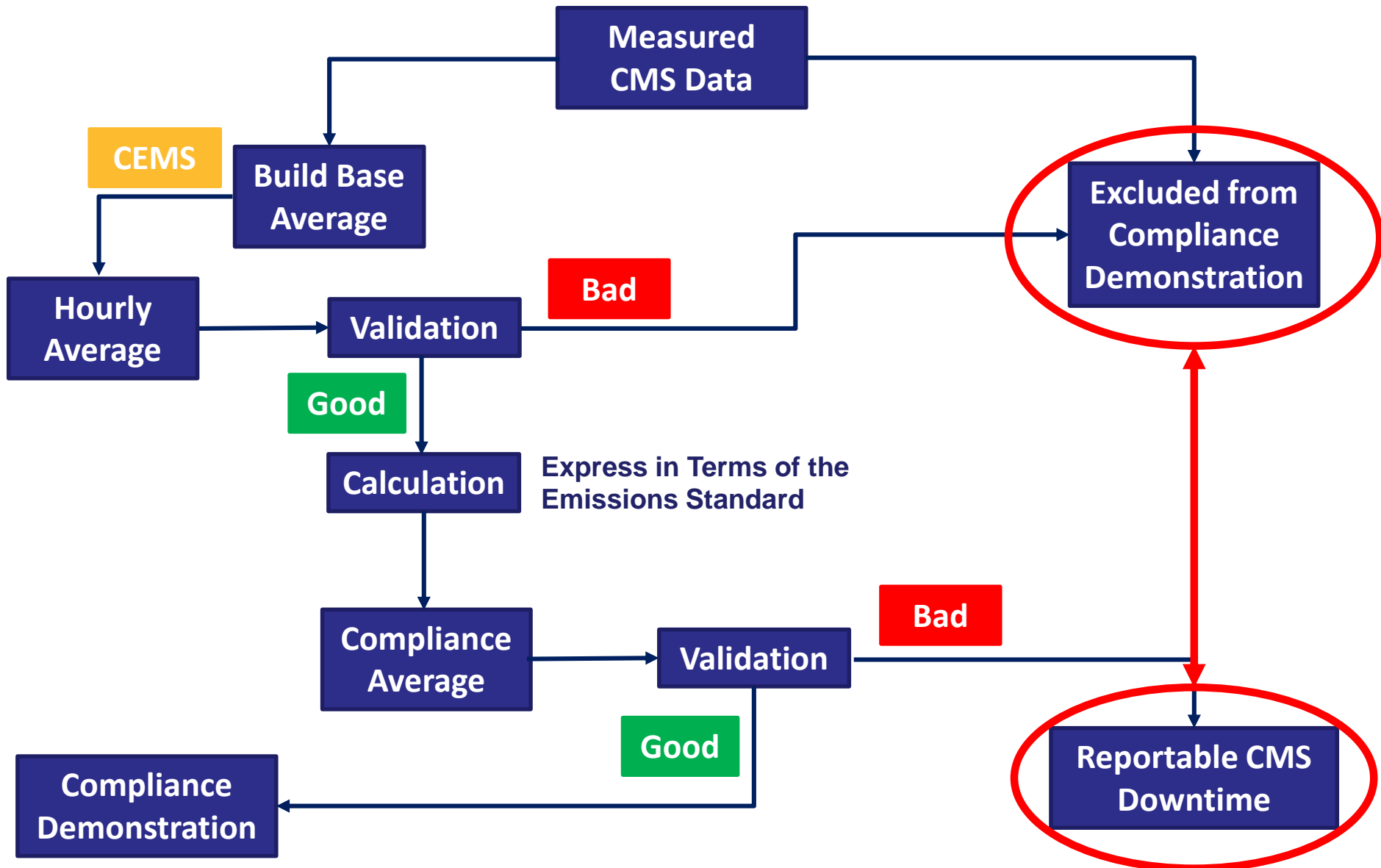
# Terminology – Emissions Standard

- ❑ 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% O<sub>2</sub>
- Compliance Demonstration – TRS/O<sub>2</sub> 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]

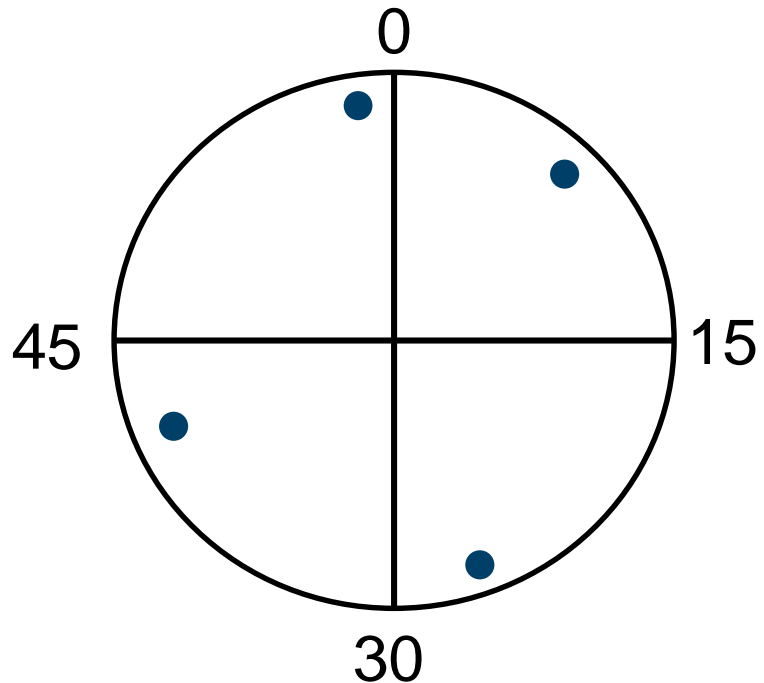
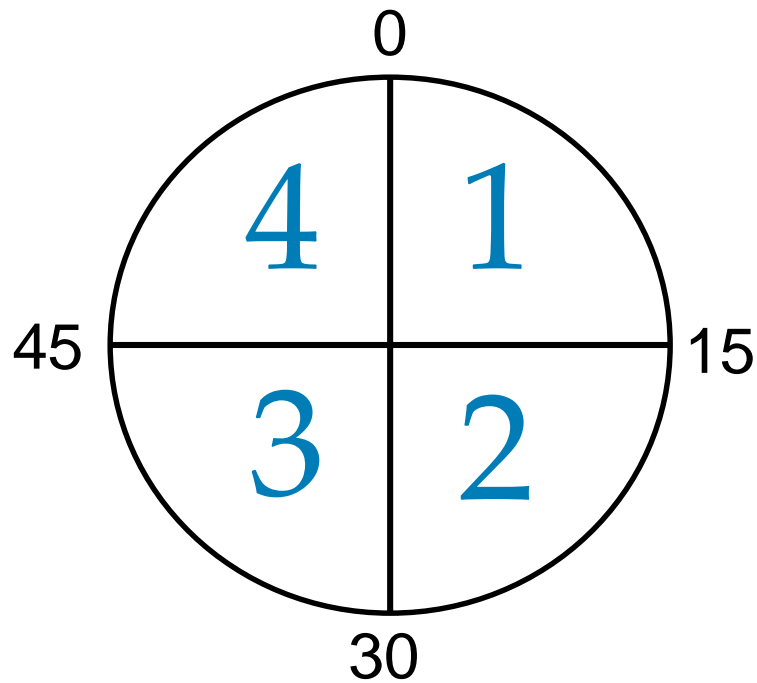
# Regulatory Background



# 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



# 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

①

Minute	Value
0	1
1	7
2	Invalid
3	Invalid
4	Invalid
5	Invalid
6	Invalid
7	Invalid
8	Invalid
9	Invalid
10	Invalid
11	Invalid
12	Invalid
13	Invalid
14	Invalid

②

Minute	Value
15	Invalid
16	Invalid
17	Invalid
18	Invalid
19	Invalid
20	Invalid
21	Invalid
22	Invalid
23	8
24	9
25	0
26	9
27	0
28	1
29	4

③

Minute	Value
30	2
31	3
32	6
33	2
34	3
35	1
36	6
37	3
38	0
39	Invalid
40	Invalid
41	Invalid
42	Invalid
43	Invalid
44	Invalid

④

Minute	Value
45	2
46	4
47	7
48	Invalid
49	Invalid
50	Invalid
51	5
52	4
53	2
54	Invalid
55	Invalid
56	Invalid
57	Invalid
58	Invalid
59	Invalid

VALID HOUR

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

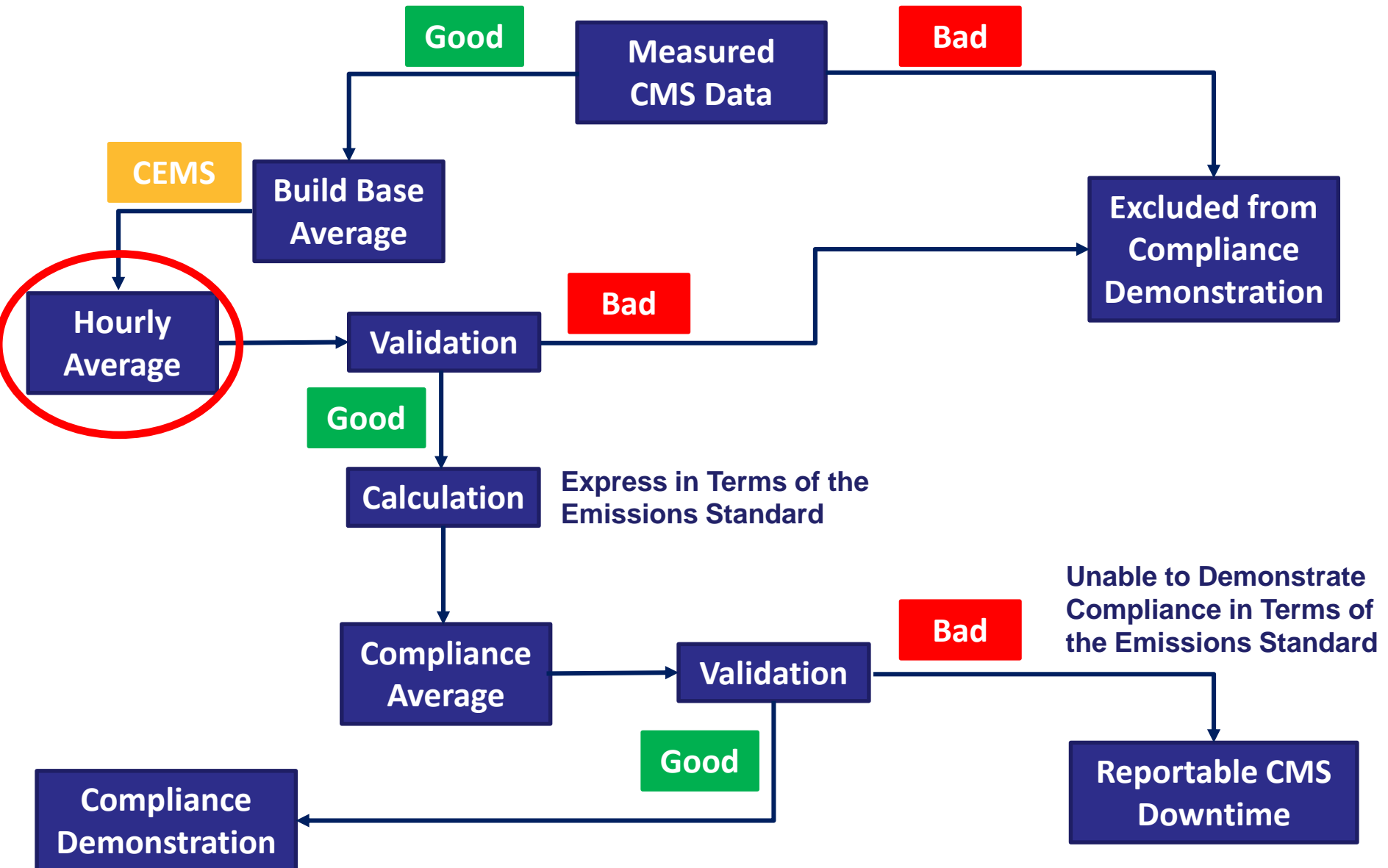
# Impacts on Compliance

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

$$TOOC = \frac{\textit{Time with Excess Emissions}}{\textit{(Total Operation Time - Monitor Downtime)}}$$



# Regulatory Background



# 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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