

PRACTICAL REGULATORY RESOLUTIONS

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I. PREVENTING CALIBRATION BACKLASH

WHAT TIME IS IT?



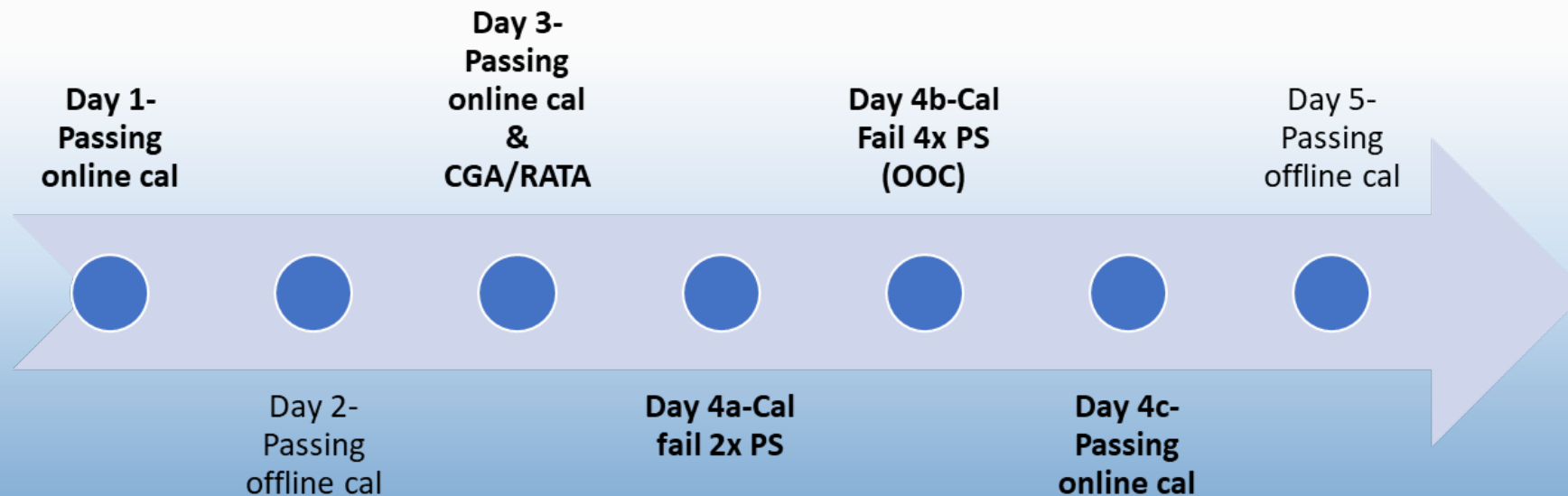
AUTO CAL TIME: 07:15

A. WOES OF SET IT & FORGET IT PRINCIPLE

1. Natural drift tendency toward 5 consec. days- 2XPS OOC
2. Infrequent operation can affect the 26-clock hour requirement
3. Late-night startup can affect UOD

B. NECESSITY OF POST-TEST CALS

1. Part 75 parameters not affected
2. Part 60 parameters **majorly** affected



C. TRACKING THE 7-DAY DRIFT & UODS

1. Assessment

The screenshot shows the '7-Day Drift' configuration window in the CeDAR Data Editor. The window is titled '7-Day Drift' and has a standard Windows-style title bar with minimize, maximize, and close buttons. The main content area is divided into several sections:

- Performance Specifications:** Includes a dropdown for 'Turbine 1' and '75-NOx ppm/H'. The 'Interval to Check for 7-Day Drift' is set from '4/17/2021' to '4/25/2021'. Under 'Performance Specifications', the '2.5% of Span (NOx ppm, SO2 ppm ...)' option is selected, with a checked box for 'Use APS of 5 if appropriate'. Other options include '5% of Span (CO ppm)', '0.5 Absolute Scale (O2 %, CO2 %)', 'Other % of Span (ex. Flow 3 ...)', 'Other Absolute Scale (ex. APS 5 ...)', and 'PS 9 (Gas chromatograph) 10% of ref. mid gas only'.
- 7-Day Drift Criteria:** Includes a checked box for 'Include Manual Cals' and two unchecked options: '6 of 7 Calibration Days Passed (CO ppm)' and '3 Days Online / 4 Days Offline (Peaking)'.
- Display Options:** Includes three radio button options: 'Show All Cals in Selected Interval', 'Show All Cals from Interval Start to Test End' (which is selected), and 'Show Only Cals Used to Pass Drift Test'. A checked box for 'Show Drift Test Summary' is also present.

Navigation buttons '<< Back' and 'Next >>' are located at the bottom of the window.

The screenshot shows the '7-Day Drift' results window in the CeDAR Data Editor. The window is titled '7-Day Drift' and has a standard Windows-style title bar. The main content area is divided into several sections:

- Calibration Log:** A list of calibration events with checkmarks indicating they passed:
 - 4/17/2021 13:34
 - 4/18/2021 12:52
 - 4/19/2021 09:27
 - 4/20/2021 10:16
 - 4/23/2021 13:05
 - 4/24/2021 06:58
 - 4/25/2021 06:07
- Instrument Information:** 'Turbine 1 75-NOx ppm/H'. 'Calibration Time: 4/17/2021 13:34' is shown as 'Passed'. 'Instrument Span: 200' is shown as 'On-Line'.
- Zero Gas:** Reference: 0, Measured: 0.1, Drift: 0.1, Limit: 5.
- Span Gas:** Reference: 181.3, Measured: 180.8, Drift: -0.5, Limit: 5.
- Summary:** A text box stating 'The 7-Day Drift Test has been passed.'
- Legend:** A row of status indicators: a blue checkmark for 'Pass On-Line', a blue checkmark for 'Pass Off-Line', a red X for 'Fail On-Line', and a red X for 'Fail Off-Line'.

Navigation buttons '<< Back' and 'Save' are located at the bottom of the window. A checked box for 'Preview Report After Saving' is also present.

C. TRACKING ...continued

Power Plant 7-Day Drift Test

Turbine 1 75-NOx ppm/H

Time	Instrument Span	Zero Reference	Zero Measured	Zero Drift	Zero Drift Limit	Span Reference	Span Measured	Span Drift	Span Drift Limit	Status
4/17/2021 13:34	200	0.00	0.10	0.10	5.00	181.30	180.80	-0.50	5.00	On-Line
4/18/2021 12:52	200	0.00	0.00	0.00	5.00	181.30	180.90	-0.40	5.00	On-Line
4/19/2021 09:27	200	0.00	0.00	0.00	5.00	181.30	181.80	0.50	5.00	On-Line
4/20/2021 10:16	200	0.00	0.00	0.00	5.00	181.30	181.60	0.30	5.00	On-Line
4/23/2021 13:05	200	0.00	0.00	0.00	5.00	181.30	181.00	-0.30	5.00	On-Line
4/24/2021 06:58	200	0.00	0.00	0.00	5.00	181.30	181.20	-0.10	5.00	On-Line
4/25/2021 06:07	200	0.00	0.00	0.00	5.00	181.30	182.20	0.90	5.00	On-Line



The 7-Day Drift Test has been passed.

C. TRACKING ...continued

Power Plant 7-Day Drift Test

Turbine 1 75-NOx ppm/H

Time	Instrument Span	Zero Reference	Zero Measured	Zero Drift	Zero Drift Limit	Span Reference	Span Measured	Span Drift	Span Drift Limit	Status
4/17/2021 13:34	200	0.00	0.10	0.10	5.00	181.30	180.80	-0.50	5.00	On-Line
4/18/2021 12:52	200	0.00	0.00	0.00	5.00	181.30	180.90	-0.40	5.00	On-Line
4/19/2021 09:27	200	0.00	0.00	0.00	5.00	181.30	181.80	0.50	5.00	On-Line
4/20/2021 10:16	200	0.00	0.00	0.00	5.00	181.30	181.60	0.30	5.00	On-Line
4/23/2021 13:05	200	0.00	0.00	0.00	5.00	181.30	181.00	-0.30	5.00	On-Line
4/24/2021 06:58	200	0.00	0.00	0.00	5.00	181.30	181.20	-0.10	5.00	On-Line
4/25/2021 06:07	200	0.00	0.00	0.00	5.00	181.30	182.20	0.90	5.00	On-Line



The 7-Day Drift Test has been passed.

C. TRACKING ...continued

2. Confirmation

The screenshot shows the 'CeDAR Reports' application window. On the left is a vertical menu with buttons for 'Hourly', 'Daily', 'Monthly' (highlighted), 'Events', 'Calibration Checks', 'Excess Emissions', 'CEMS Downtime', 'Alarms', 'Audits', 'CGA/Linearity', and 'Settings'. The main area displays a list of reports: 'Monthly Emissions Report', 'Monthly GHG Emissions Report', 'Monthly Mass Emissions Report', and 'Monthly Operations Report'. On the right, the 'Months' configuration panel includes radio buttons for 'Current month', 'Previous month', 'Last 10 Months +Current', 'From' (with year and quarter dropdowns), 'To' (with empty dropdowns), 'From' (with year and month dropdowns, highlighted in yellow), 'To' (with empty dropdowns), '12 months ending' (with year and month dropdowns), and 'From' and 'To' (with empty text boxes and ellipsis buttons). At the bottom are 'Save As', 'Preview', 'Print', and 'Close' buttons.

C. TRACKING ...continued

Power Plant
City, State
Monthly Operations Report
April - 2021

Day	SCR O2 %	SCR NOx ppm	SCR CO ppm	GT Nat Gas Flow klbs	DB Nat Gas Flow klbs	Total Heat Input mmBtu	Total Megawatt Hours	Unit On-Time
17	14.308	29.119	174.503	552.3	Down	13800.7	902.5	9.85
18	13.092	28.461	70.809	1034.3	Down	25857.0	2255.6	12.48
19	12.668	27.703	61.485	2562.2	Down	64044.0	6204.5	24.00
20	12.290	30.122	2.448	3185.3	Down	79636.0	8263.8	22.82
21	Down	Down	Down	Down	Down	Down	0.0	0.00
22	Down	Down	Down	Down	Down	Down	0.0	0.00
23	13.703	29.125	163.210	917.4	Down	22935.9	1861.8	12.26
24	12.814	29.913	0.436	2017.4	Down	50445.0	4401.2	24.00
25	12.618	28.856	0.253	630.8	Down	15772.5	1374.2	7.35
26	15.414	27.657	404.805	24.7	Down	616.2	8.8	0.70
27	Down	Down	Down	Down	Down	Down	0.0	0.00
28	Down	Down	Down	Down	Down	Down	0.0	0.00
29	Down	Down	Down	Down	Down	Down	0.0	0.00
30	Down	Down	Down	Down	Down	Down	0.0	0.00
Average Total 12-Mo Roll	14.148	26.878	325.285	1028.0 14391.5 30356.3	Down Down 4164.6	25699.1 359786.8 863001.9	842.4 25272.4 29644.1	197.62 307.89



II. FUEL FLOWMETER FAUX PAS

A. CORIOLIS REQUIREMENTS

1. EPA exploring standardizing
2. Use standard 40 CFR 75 Appendix D methodology
3. Petition

B. Annubar REQUIREMENTS

1. USE as a DP fuel meter as Per Part 75
2. Use standard 40 CFR 75 Appendix D methodology
3. Petition?
4. Conversation with EPA on using FFTTT

C. FUEL FLOW-TO-LOAD MISSTEPS

1. Duct burner & combustion turbine fuel meter systems
2. Fuel meter systems with PEI
 - a. Same or adjacent quarters

III. MYSTERY OF PS4, 4A & 4B

- A. PS 4-APPLICABLE FOR 1000 PPM
- B. PS 4A-APPLICABLE FOR <200 PPM
- C. PS 4B-APPLICABLE FOR >200 & 3000 PPM

IV. NATIONWIDE EQUIPMENT COMPLIANCE GUIDELINES

A. REASON FOR PROJECT

1. Historical CiSCO response to malfunction events
2. Current CiSCO response based on EPA response

“...the authority to oversee compliance with Part 60 has been delegated to, in most cases, the state or local air agencies (the EPA Regional office is the delegated authority in some cases), so the answers to a lot of your questions would be up to the compliance authority responsible for a particular facility.” –Kim Garnett, EPA email dated 7/6/202

A. REASON...continued

3. Future CiSCO responses based on local or state agency response
 - a. Part 75 or state plan already available
 - b. Part 75 allowable, but contact agency
 - c. Part 75 allowed when agency is unavailable
 - d. Contact agency regardless

B. PROCESS

1. General email
2. Evaluate response
 - a. Record, or
 - b. Clarify and resubmit, repeat

C. CURRENT STATUS

	State	Answer	Status	Answer Type	
1	USA				
2	Alabama	Part 75 QA requirements will likely be approved, but requires prior notification and approval from ADEM.	ANSWERED	Positive?	
3	Alaska		Awaiting final written answer. Followed up 8/23/2021.		New Email
4	Arizona	Part 75 can be used in areas that Part 60 is ambiguous, while following Part 60 limits that are more stringent than Part 75. Temporary analyzer replacements must pass a linearity.	ANSWERED	Positive	Contacted/Pending
5	Arkansa	A CGA can be performed in place of a linearity test if a RATA is not required. For analyzer replacement, a CGA can be conducted to minimize downtime until a RATA is performed.	ANSWERED	Positive?	Final Stages
6	California		Contact Local Counties at a Later Date		Answered
7	Colorado	Permission granted as per CDPHE Air Pollution Control Division guidelines for State-Only Required Continuous Monitoring Systems in the State of Colorado Final Draft: February 2005: Section 6	ANSWERED	Positive	Environmental Department's Response Ne
8	Connecticut		Responded to John Degirolamo 8/24/2021.		
9	Delaware	Check the permit first. Then use Part 75 as guidance when Part 60 and the permit doesn't address the situation.	ANSWERED	Positive	
10	Florida	Florida is agreeable to using Part 75 procedures, but would like to evaluate situations case by case. Requests for approval should be addressed to: Ms. Jessica Dalton (Jessica.Dalton@FloridaDEP.gov) Administrator, Compliance and Enforcement Section 2600 Blair Stone Road, MS 5505 Tallahassee, Florida 32399-2400	ANSWERED	Positive?	
11	Georgia	Temporary replacements and repairs that DO NOT affect CEMS accuracy: perform the appropriate quality assurance procedures to prove accuracy (e.g. CGA, daily cal). Temporary replacements and repairs that DO affect CEMS accuracy: perform re-cert. Temporary Analyzer Replacement: allowed, but after 90 days the original equipment must be replaced or the analyzers must be certified.	ANSWERED	Positive	
12	Hawaii		Andrew followed up on 8/24/2021.		
13	Idaho	Part 75, EPA guidance, and NSPS Subpart specific guidance are generally used as references to make final replacement and repair decisions, but each incident is handled on a case by case basis.	ANSWERED	Positive?	
14	Illinois	Plants should contact Kevin Mattison (kevin.mattison@illinois.gov, 217-953-4519), however, plants should be prepared to follow Part 75 guidelines as this is the IEPA's reference. If Kevin is unavailable, he will work with plants that initiate Part 75 testing.	ANSWERED	Positive	
15	Indiana		Called both numbers 07/14/2021.		
16	Iowa	Part 75 QA requirements have been accepted in the past for Part 60 CEMS. The Plant's Construction Permit should include this verbage, but if not, the plant should submit a request for determination form IDNR.	ANSWERED	Positive ?	
17	Kansas	Kansas will accept the quality assurance procedures outlined in Part 75 for Part 60 CEMS for repairs, replacements, and temporary analyzer replacements.	ANSWERED	Positive	
18	Kentucky	Plants are able to follow Part 75 guidelines, but must get approval to substitute Part 60 tests when using Part 75 testing. Tempory analyzer replacement requires contact with KEEC.	ANSWERED	Positive?	
19	Louisiana		Andrew Responded 8/27/2021.		
20	Maine	Part 75 protocol will need to be approved by the agency for repairs and replacements. Performing the tests prior to notification and including the procedures and results during notification is advised. For temporary analyzer replacement, the replacement must be the same make and model (regardless of series) and can be used for 720 hours. After 720 hours a full cert is required.	ANSWERED	Positive?	
21	Maryland		Follow up email sent 07/14/2021.		
22	Massachusetts				

QUESTIONS?

- Thanks –

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