From: Will Ollison
Sent: Friday, May 30, 2014 8:47 AM
To: Hanlon, Edward
Subject: RE: CASAC public comment

Thanks for your reply and your willingness to respond to a few more questions.

It's unclear to me who decides which issues will be considered by CASAC panels, the DFO, the panel chairman, or EPA SAB management? It's been my experience that such panels may and do comment on items beyond responding to EPA staff charge questions, even offering unsolicited advice upon occasion.

In the specific case of the O3 mixing ratio altitude bias, it would appear likely that this arises from an EPA oversight error, given the Agency's appropriate handling of a similar PM monitor altitude bias issue mentioned in the earlier cc'd CASAC submission. Accordingly, the O3 altitude bias would also seem to be a related FEM/FRM performance specification issue, subject to AMMS review, since unlike the PM monitors it is the O3 monitor reporting of mixing ratio values, rather than concentration values, which leads to an altitude bias. You may wish to reconsider your view on this matter.

I would hope that the AMMS would also feel free to discuss other such errors they may notice in Agency presentations on these matters. One example might be the revised FEM/FRM performance specifications proposed at slide #9 (footnote "c") of the April 3, 2014 EPA staff presentation posted to the April 3, 2014 AMMS teleconference website. Is the Agency asking for AMMS feedback on these proposed revised performance specifications? If so, I don't recall any AMMS discussion of these propositions during their teleconference or see any comment in their draft letter to the Administrator. If not now, when? Another potential error appears at Table B-3 (attached) of current 40 CFR Part 53 regulations governing O3 chemiluminescence FRM testing for humidity effects where such tests are to be conducted in the absence of ozone. How can the perturbation of water vapor on measured O3 values be determined if there is no O3 test signal to be perturbed? Is this merely a typographical error, an errant footnote "3" in the O3 chemiluminescence "Water Vapor" column in Table B-3 of these regulations?

I hope AMMS will be able and willing to comment on such questions as within the scope of their FRM designation review.

Let me know what you think.

All the best…

TABLE B–3 TO SUBPART B OF PART 53—INTERFERENT TEST CONCENTRATION, PARTS PER MILLION

TABLE B–3 TO SUBPART B OF PART 53—INTERFERENT TEST CONCENTRATION,[1] PARTS PER MILLION

Pollutant	Analyzer type	Hydrochloric acid	Ammonia	Hydrogen sulfide	Sulfur dioxide	Nitrogen dioxide	Nitric oxide	Carbon dioxide	Ethylene	Ozone	Mxylene	Water vapor	Carbon monoxide	Methane	Ethane	Naphthalene
SO_2	Ultraviolet fluorescence			[5]0.1	[4]0.14	0.5	0.5			0.5	0.2	20,000				[6]0.05
SO_2	Flame photometric			0.01	[4]0.14			750				[3]20,000	50			
SO_2	Gas chromatography			0.1	[4]0.14			750				[3]20,000	50			
SO_2	Spectrophotometric-wet chemical (pararosanaline).	0.2	0.1	0.1	[4]0.14	0.5		750		0.5						
SO_2	Electrochemical	0.2	0.1	0.1	[4]0.14	0.5	0.5		0.2	0.5		[3]20,000				
SO_2	Conductivity	0.2	0.1		[4]0.14	0.5		750								
SO_2	Spectrophotometric-gas phase, including DOAS				[4]0.14	0.5				0.5	0.2					
O_3	Chemiluminescent			[3]0.1				750		[4]0.08		[3]20,000				
O_3	Electrochemical		[3]0.1		0.5	0.5				[4]0.08						
O_3	Spectrophotometric-wet chemical (potassium iodide).		[3]0.1		0.5	0.5	[3]0.5			[4]0.08						
O_3	Spectrophotometric-gas phase, including ultraviolet absorption and DOAS).				0.5	0.5	0.5			[4]0.08	0.02	20,000				
CO	Non-dispersive Infrared							750				20,000	[4]10			
CO	Gas chromatography with flame ionization detector.											20,000	[4]10		0.5	
CO	Electrochemical						0.5		0.2			20,000	[4]10			
CO	Catalytic combustion-thermal detection		0.1					750	0.2			20,000	[4]10	5.0	0.5	
CO	IR fluorescence							750				20,000	[4]10		0.5	
CO	Mercury replacement-UV photometric								0.2				[4]10		0.5	
NO_2	Chemiluminescent		[3]0.1		0.5	[4]0.1	0.5					20,000				
NO_2	Spectrophotometric-wet chemical (azo-dye reaction).				0.5	[4]0.1	0.5	750		0.5						
NO_2	Electrochemical	0.2	[3]0.1		0.5	[4]0.1	0.5	750		0.5		20,000	50			
NO_2	Spectrophotometric-gas phase		[3]0.1		0.5	[4]0.1	0.5			0.5		20,000	50			

[1] Concentrations of interferent listed must be prepared and controlled to ±10 percent of the stated value.
[2] Analyzer types not listed will be considered by the Administrator as special cases.
[3] Do not mix with the pollutant.
[4] Concentration of pollutant used for test. These pollutant concentrations must be prepared to ±10 percent of the stated value.
[5] If candidate method utilizes an elevated-temperature scrubber for removal of aromatic hydrocarbons, perform this interference test.
[6] If naphthalene test concentration cannot be accurately quantified, remove the scrubber, use a test concentration that causes a full scale response, reattach the scrubber, and evaluate response for interference.

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