NPAP(&SRP) Progress &Growth

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QA Conference

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NPAP TTP PURPOSE

- Detect otherwise unknown causes of Bias in Air Agency Monitoring Procedures
- Use truly complete and independent inter agency measurement stick : NAPP –TTP
- Indicates degree (amount) of comparability between your measurements and those of an agency that may add to your own pollution

NPAP TTP QA

- 7 Whole Systems:R7or RTP checks R1,2, 3,4, 5,6,9(7 used in 7&8, 9 in 9&10,2 in 3), directly or indirectly; Pass= 5% / pt
- Annual Personnel Training Minimum: Initial & Continuing; Remote & Hands-On
- Commercial O3 Std. Vs SRP: Each Quarter Used; Slope within +/-3%,Intcpt,+/-3ppb
- Line Loss Test; Avg% D of 3 Pts should be Within 2.5%

TTP O3Analyzer Verification by SRP in 2007

2007 Region	slope	intercept	**ave slope**	**ave intercept**	**Region**
2-TTPV2	1.001895	0.0946362	0.9975472	-0.416145988	**2**
2-TTPV2	0.996168	-1.367363			
2	0.999321	-0.327010139			
2	0.998796	-0.026994			
2	0.991556	-0.453999			
4	0.9994	-1.0316	1.001966667	-0.887133333	**4**
4	1.0035	-0.7927			
4	1.003	-0.8371			
5	1.00103	0.205875	1.0037775	0.0289175	**5**
5	1.00103	0.205875			
5	1.00655	-0.14804			
5	1.0065	-0.14804			
6	0.99778	-0.11637	1.00031	-0.058035	**6**
6	1.00284	0.0003			
7	1.00486	0.04075	1.00203	-0.28453	**7**
7	0.9992	-0.60981			
9	1.01198	0.03114	1.01198	0.03114	**9**

TTP O3 Analyzer Verification by SRP in 2008

2008					
2	0.991578	-0.45448	0.998502446	-0.100281614	**2**
2	1.00377	0.23928			
2	0.989405	0.0043697			
2	1.008377109	-0.437329			
2	0.998796	-0.026994			
2	0.998796	-0.026994			
2	0.998795016	0.000176			
4	0.9991	-0.9535	1.0002	0.121026667	**4**
4	0.9982	1.4039			
4	1.0033	-0.08732			
5	1.0026	-0.00969	1.0026	-0.00969	**5**
6	1.00045	0.21913	1.000625	0.044565	**6**
6	1.0008	-0.13			
7	0.9949	0.03178	0.9949	0.03178	**7**
9	1.01175	-0.01135	1.011865	0.009895	**9**
9	1.01198	0.03114			

NPAP TTP Whole system Verification

Reg#	1	2	3	4	5	6
RSyst Used	1	2	2(for3)	4	5	6
Chk Systm	2,5	Reg2 Lab	Reg2 Lab,RTP,4	RTP Lab,7	7	7
Date Chkd	8/18/08	5/06,1/16/07	Same as for 2,plus	3/20/05;3/20/07	10/24/05,3/28/07	12/16/04,4/18/06

Whole TTP System Verification (Cont'd)

Reg3	7	8	9	10
Syst Used	7	7	9	9
Chk Syst Used	Reg7 Lab	Reg7 Lab	7	7
Date Chkd	3/04,12/04,11/05,3/06,9/07,3/08	Same as for 7	3/04, 4/06	Same as for 9

Goals

- Audit 20% of all NAAQS Gas Sites/year
- Audit all site in 5 years
- Through-The-"Probe" (Sample Inlet)(TTP) unless can only do Back-of-Analyzer(BOA)
- Use analyzers calibrated onsite to prove concentration and stability of audit gases
- Reported on AQS
- Fewest comparison steps to NIST Stds

REGIONAL SUMMARY OF PLANNED / DONE PE IN 2009
DATE: 4 / 28 / 2009

Reg	O_3 (Mon) TTP	CO (Mon) TTP	SO_2 (Mon) TTP	NO_2 (Mon) TTP	TOTAL TTP PE MON.	TOTAL TTP PE SITES (20%)	EST. $ TTP COSTS
1	(P)	(P)	(P)	(P)	(P)	17(P)	$3,400
2	(P)	(P)	(P)	(P)	(P)	82(P)	$6,110 (FOR Trace Gas Stds)
3	26(P)	9(P)	10(P)	10(P)	55(P)	31(P)	$68,200 +$4,000 FOR EQUIP = $72,200
4	37(P)	4(P)	9(P)	4(P)	54(P)	41+ 5M (P)	$60,600 + Renew + Recert = $63,700

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REGIONAL SUMMARY OF PLANNED / DONE PE IN 2009
DATE: 4 / 28 / 2009

Reg	O_3 (Mon) TTP	CO (Mon) TTP	SO_2 (Mon) TTP	NO_2 (Mon) TTP	TOTAL TTP PE MON.	TOTAL TTP PE SITES (20%)	EST. $ TTP COSTS
5	54(P)	11(P)	15(P)	7(P)	87(P)	72(P)	$127,600 + Cert = $129,800
6	18(P)	6(P)	3(P)	10(P)	37(P)	20(P)	$46,200 +EMC $47,100
7	14(P)	6(P)	5(P)	3(P)	28(P)	20(P)	$14,220 + $4,400 Cert R7 900 EMC = $19,520
8	11(P)	4(P)	4(P)	4(P)	23(P)	14(P) (+ 2T)	$28,600 + Cert = $30,800

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REGIONAL SUMMARY OF PLANNED / DONE PE IN 2009
DATE: 4/28/2009

Reg	O_3 (Mon) TTP	CO (Mon) TTP	SO_2 (Mon) TTP	NO_2 (Mon) TTP	TOTAL TTP PE MON.	TOTAL TTP PE SITES (20%)	EST. $ TTP COSTS
9	21(P)	10(P)	9(P)	3(P)	41(P)	35(P)	$46,200 + $4,400 Cert ARB + HI shipping + R10 Cyl + EMC = $51,500 +$6K
10	10(P)	0(P)	0(P)	1(P)	11(P)	10(P)	$22,000 + $750 van rental, equip & shipping = $23,950
TOTALS	**191 +? R1&2**	**50 + ? R1&2**	**62 + ? R1&2**	**42+ ? R1&2**	**345 + ? Est 17, 82,13? =434(P)**	**370 + 12T(P)**	**$454,080**

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'06 thru '08 TTP PE Totals (vs 20% Goal)

YEAR	O_3	CO	SO_2	NO_2	# MONITORS	# SITES
2006 DONE	141	48	39	60	286	157
2007 DONE	108	90			249P300D	188P200D
2008 DONE	318	54	78	52	502	325
2009 PLAN	292	46+? R1,2,8	58+? R1,2, 8	38+? R1,2, 8	434?	356 (+10T)

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% of COMPLETED TTP PE OUT of 100% in 5 YEARS
(In theory*, looking for 100% counting from 2005)(As of 5/4/09)

Region	'04	'05	'06	'07	'08	'09 (Planned)	Total of '04 -'09	Total # Sites	% Completed
1		5	8	?(P)	39	17	69	73	94.5
2*		10	17	26	54	82(est.)	189	85	222*
3		10	10	25	31	31	107	136	79
4*	25	26	0 (due to Katrina)	33	32(+2PG)	41+5M	162	263	62*
5	20	25	20	52	69	72	258	258	100
6*	22	24	20	21	21	20	128	148	86*
7	17	31	33	18	24	20	143	69	207
8			10	14	12	13	49	50	98
9*	30	24	15	23	30	35	157	249	63*
10		19	7	9	13	10	58	41	141
Total	114	174	140	221	325	346(+10T)	1320	1372	96

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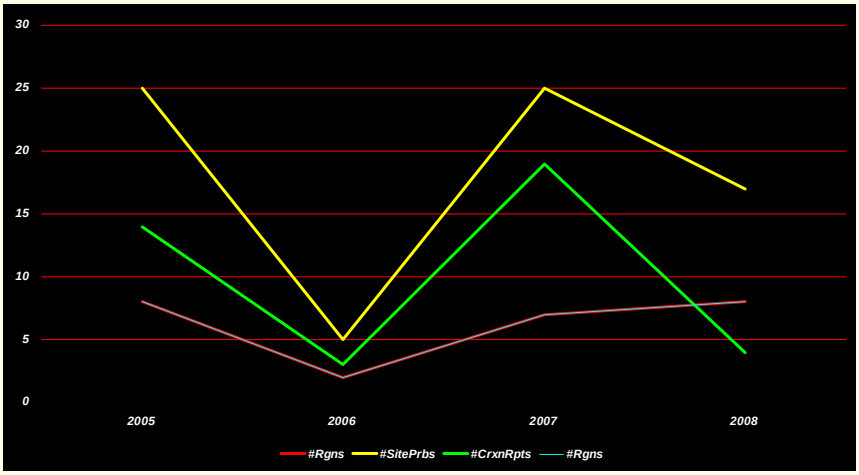
of SITE PROBLEMS &Follow up Reports from 2005 to 2008



How We Get There-What's New

WHAT IS NEW: Levels and Limits, or Lower and Lower

- New CFR–Required Audit Levels- Done to Add Flexibility and “Get Real”; NPAP TTP systems can do them
- New Guidance for Audit Acceptance Limits-Go Lower for Ozone, not CO, SO2, NO2; and the data to show it
- TTP SOP: Line Loss Test, Plan New Lower Ranges due to new CFR audit levels

WHAT IS NEW: Technology in '09/'10: Lower, Better

- NCORE Gas Instruments -More Flexible, more bang for the buck, when you have the bucks to spend: Two Ranges and Better Than One
- SRP Upgrades-Getting Lower, Better

WHATS NEW: Documentation

- NPAP TTP QA Plan
- NPAP TTP SOP Overall Revision
- NPAP TTP SOP Section 6 (Audits)– Case-based, and Precursor Gas Versions
- SRP SOP
- Ozone Traceability Terminology Guidance

SRP VERIFICATION & UPGRADE

SRP#	REGION	UPGRADED	VERIFIED
1	ORD-ST	09/08	09/08
3	2		05/09
4	9-ARB		03/18/08
5	6		01/08
6	5		02/08
7	ORD-TR	09/08	09/08
8	8		10/08
9	1	05/09	05/09
10	4	04/09	04/09
13	7		12/07
36	9-EPA		03/21/08

SRP vs SRP Results

- Technical Coordinator of the Network is assembling the results this week.
- We will Summarize and Post on AMTIC along with the schedule, at our NPAP /SRP/PEP website

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