

AQS Development and Enhancement Plans

AQS CONFERENCE

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AQS Development/ Enhancement Plans

- System Status
- Development Plan
- Data Improvements
- Software Implemented
- Active Development

IIII System Status

- Operational for over 6 years
 - Average of 7.9 million values per month
- For July 2008
 - 1724 Files loaded with 11 million values
 - » 148 users from 119 agencies
 - » 1 to 1,100,538 records
 - » 1300 files with 1 to 3 months data
 - » 1186 with no errors (69 %)
 - 963 Post jobs

IIII System Status

- Agencies reporting data (screening groups)
 - State 55 (no change)
 - Local 44 (increase of 4)
 - Tribe 74 (increase of 5)
 - Other -8 (no change)
- About 4,859 retrievals (30 different reports)
 by 268 users in July 2008
 - Usage order AMP350, 501, 450, 430 70 %
- 631 Active registered users
 - 121 new users in last year

IIII System Status

- Raw Data
 - Archive 1957 to 1992
 - Production 1993 to 2008 (years updatable?)
 - Production 1.04 billion rows in raw data table
 - 10 % increase from last year
- Mature System
- AQS Disaster Recovery operational
 - Tested this month
- AQS Data Mart operational

IIII Development Plan

- Funded
 - Operation and Maintenance
 - » Software bug resolution
 - » Disaster recovery
 - PM2.5 NAAQS Changes
 - » Combine collocated monitors
 - » Revised standard value
 - Implement new CBSA Definitions
 - Site Level Design Value Report
 - » Ozone, PM2.5

IIII Development Plan

- Funded
 - Modify AMP255 for regulation changes
 - Exceptional Event Rule
 - » Data flags redefined
 - » Report for flagged data
 - » Revised summary processing
 - AQI for PM2.5

Development Plan

- 2009 Budget Request
 - Funding Expected
 - » Operation and Maintenance
 - » Implement revised NAAQS for lead
 - » Risk Assessment
 - Funding Uncertain
 - » Exchange Network Load Change
 - » Calculate PM10 (STP) from PM10 (LC)

Data Improvements

- IMPROVE Data Years 2005 to 2006
- Update WEB files quarterly by year for criteria parameters and speciation, added continuous PM2.5 data
- PM2.5 parameter changes
 - Continuous & speciation
 - All changed including P & A Data
 - Continuous Monitors Closed

- AQS Geospatial Processing 08/2007
 - Standard coordinates & datum WGS84
 - Derive data elements based on coordinates
 - Goal to convert all existing site coordinates
 - User assistance provided
 - » Discoverer query documented to assist
 - » Offered to perform update

- AQS Geospatial Processing
 - Current database status
 - » All sites 7,064 of 19,218 (37%) converted
 - » Active sites 1,343 of 4,842 (28%) converted
 - » Other users 1,392 of 7,064 (20%) converted
 - » States converted- MA, VT, NJ, PA, WV, AL, NC, SC, TN, IL, MI, MN, TX, CO, AZ

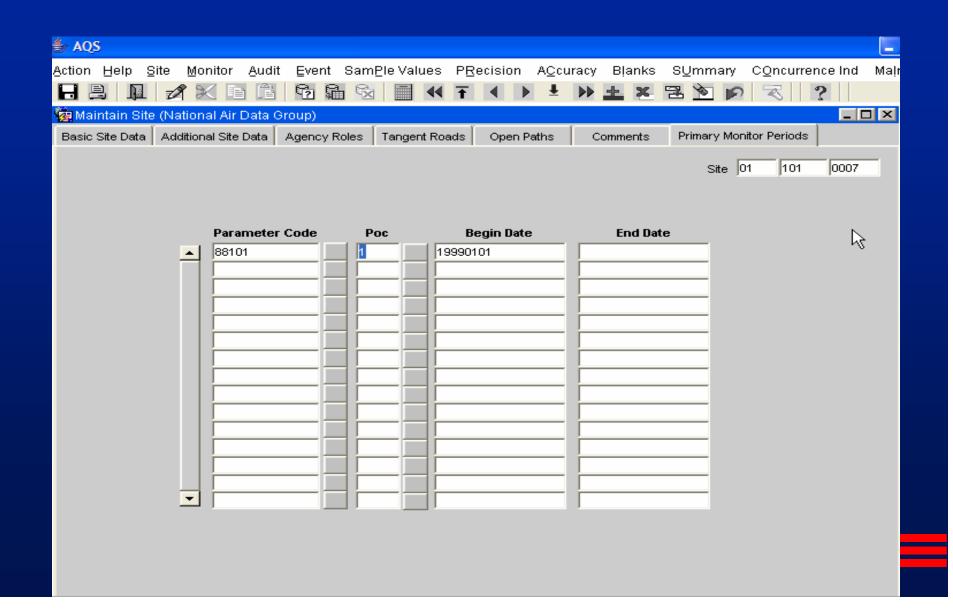
- Part 58 Appendix A revisions 08/2007
 - Applicable January 1, 2007
 - Precision/Bias Calculations
 - PQAO Primary Quality Assurance Org.
 required for <u>all</u> monitors by OAQPS QA team—derived from current reporting organization (RO) or RO consolidation (57 not resolved)
 - RO consolidation reduces collocation monitors required

- Data Completeness report option 12/2007
 - Use PQAO or Reporting Organization (default)
- New Report BenMAP Raw Data File
 - Standard retrieval
 - Delimited record with year of data long
 - Standard units, no qualifiers included
- Implement new ozone NAAQS 05/2008
 - Averages all recomputed
 - AQI values updated

IIII Active Development

- Combining collocated PM2.5 data values
 - Near completion
 - Primary monitor -new user input Maintain Site
 - Initial primary monitor designation
 - » Lowest POC and lowest required sampling frequency
 - » Will require QA when available
 - New report AMP355
 - » Lists combined values
 - » Standard report process

Maintain Site



Wew Report - AMP355

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY AIR QUALITY SYSTEM COMBINED SITE SAMPLE VALUES

CAS NUMBER:

32.425833 LOWGITUDE: -86.285278

Aug. 5, 2008

LATITUDE:

(88101) PM2.5 - Local Conditions

SITE ID: 01-101-0007 COUNTY: (101) Montgomery CITY: (51000) Montgomery

SITE ADDRESS: MTG. RESURRECTION 2815 FORBES DRIVE

SITE COMMENTS:

SUPPORT AGENCY: (0013) Al Dept Of Env Mgt

MONITOR TYPE: SLAMS

PQAO: (0013) Al Dept Of Env Mgt

REPORT FOR: 2008

STATE: (01) Alabama

LAND USE: COMMERCIAL

AQCR: (002) COLUMBUS-PHENIX CITY

LOCATION SETTING: SUBURBAN

URBANISED AREA: (5240) MONTGOMERY, AL

UNITS: 105

	MONTH											
Day	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
1	3.5	5.9	11.6	5.7*	10.5*							
2	4.6	8.7	17.5	10.4*	10.7*							
3	13.0	11.4	14.5	11.4*	5.6*							
4	11.2	10.2	3.7	6.4*	7.0*							
5	12.5	7.2	8.2	4.2*	10.0*							
6	8.5		14.6	6.8*	14.2							
7	8.6		14.1	5.3*	10.7*							
8		13.2	5.6	11.1*	9.0*							
9	8.4		9.3	11.9*	9.2*							
10	5.5	9.2	11.0	12.1*	16.6*							
11	6.5	8.6	17.0	10.3*	8.6*							
12	9.6	12.2	15.2	13.9	11.7*							
13	8.4		22.4*	7.3*	7.4*							
14	9.1			6.9*	12.0*							
15	10.2			7.6*	13.6*							
16	12.0			10.1*	12.7*							
17	4.9	13.8		10.4*	10.5*							
18	13.5	3.9		12.0	12.4							
19	8.4	4.9	7.8*	6.2*	10.6*							
20	4.6			8.6*	13.1*							
21	6.0		12.8	9.7*	11.9*							
22	10.1		14.8	14.2*	16.0*							
23	10.1		10.2	14.5*	8.2*							
24	9.7		7.5	12.8	17.0							
25	8.8	15.9	13.5	7.8*	18.1*							
26				8.0*	24.1*							
27			15.5*	8.9*	22.1*							
28				9.2*	16.5*							
29		13.1		10.1*	16.2*							
30	3.4			10.9*	20.4							
31	7.1		12.1		15.2*							
190.:	26	26	21	30	31		0	0 0	0	0	0	0
MAX:	13.5	20	22.4	14.5	24.1		0	0 0	0	0	0	0
MEAN:	8.4	10.7	12.3	9.5	13.0							

Note: Missing samples from the primary monitor that have been augmented with samples from collocated monitors NO MAX MEAN CRED DAYS % OBS are flagged with "*".

Note: The quarterly and annual statistics displayed in the footer represent actual statistics for those periods, irrespective of the date range specified in the report request. However, daily, monthly, and quarterly statistics displayed in the matrix are solely derived from the values on the report.

QTR 1: 73 22.4 10.4

QTR 2: 61 24.1 11.3 QTR 3: 0 0 0 OTR 4: 0 0 0

AMNUAL CREDIT DAYS: ANNUAL * OBS: ANNUAL WEIGHTED MEAN: AMNUAL 98%:

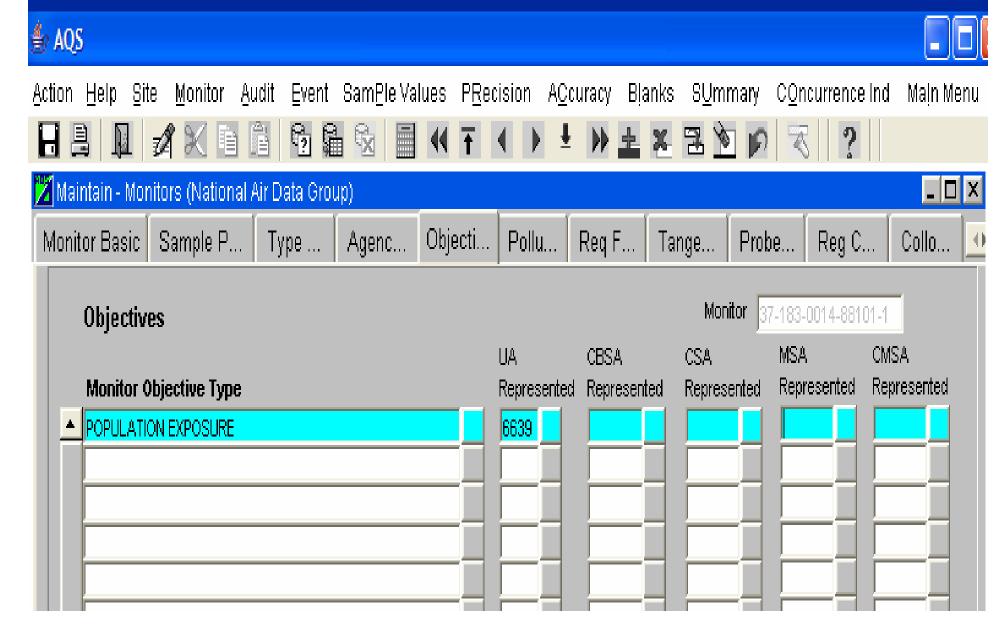
IIII Active Development

- Implement new CBSA/CSA Definitions
 - Near Completion
 - Combined Statistical Area replaces CMSA
 - Core Based Statistical Area replaces MSA
 - » Metropolitan Statistical Area
 - » Micropolitan Statistical Area
 - » Derived because follow county boundaries

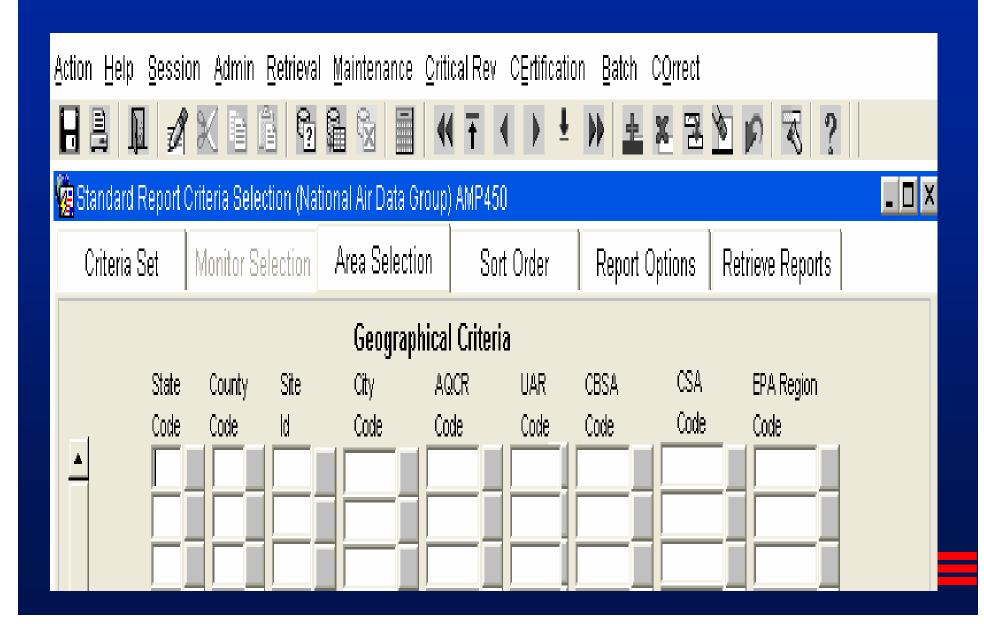
LLI Active Development

- Implement new CBSA/CSA Definitions
 - Input process for monitoring objective
 - Retrieval process will use new codes
 - Reports will use new codes
 - » Report header
 - » Work files

IIII Monitoring Objective



Retrieval Process



LIII Active Development

- PM2.5 Summary Re-compute
 - Ready to begin development
 - New short term standard
 - Individual monitors
 - Uses combined monitor records
 - Revised definitions

IIII Active Development

- Finalizing Design Specifications
 - Exceptional Event Rule Implementation to be discussed Thursday
 - Design Value Report to be discussed next
 - AMP255 Revisions to be discussed Friday