AQS Development and Enhancement Plans

AQS CONFERENCE

Jake Summers

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AQS Development/ Enhancement Plans

- System Status

- Development Plan

- Data Improvements

- Software Implementations

System Status

- Operational for over 5 years
  - Average of 7.6 million values per month
- For May 2007
  - 1956 Files loaded with 8 million values
    - » 151 users from 107 agencies
    - » 1 to 506,422 records with 44% <100 records
    - » 531 files with 1 to 3 months data
    - » 1351 with no errors (69 %)
  - 1097 Post jobs
- Agencies reporting data (screening groups)
  - State – 55 (no change)
  - Local – 40 (no change)
  - Tribe – 69 (increase)
  - Other -8 (no change)

System Status

- About 5,081 retrievals by 280 users in May 2007
  - Usage order AMP350, 450, 501, 430 – 66 %
- 616 Active registered users, 546 inactive
- Raw Data
  - 1993 to 2007
  - 936 million rows
  - 9 % increase

System Status

- First system to migrate to new hardware
  - Replaced database server May 2005
  - Replaced application server March 2006
  - Replaced server running load October 2006
- AQS Disaster Recovery operational
- AQS Data Mart operational

Development Plan - Funded

- Maintenance
  - Software bug resolution
- Documentation Updates
- PM2.5 NAAQS Changes
  - Combine collocated monitors
  - Revised standard value
- Implement new CBSA Definitions
- Certification Flags
- QA Report for Noncriteria Pollutants

Development Plan - 2008

- Exchange Network Load Change
- Design Value Report
- Identity Management Implementation
- Exceptional Event Rule
  - Data flags redefined
  - Report for flagged data
  - Revised summary processing

Data Improvements

- IMPROVE Data – Years 2000 to 2004
- Archive 1993 to 1995 - delayed
- Update WEB files quarterly by year for criteria parameters and speciation
- PM2.5 parameter changes
  - Continuous & speciation
  - 38 % still stored as 88101 for 27 States

Software Implementations

- Completed Software Implementations
  - Load process moved to database
  - New XML schema for ESAR data standard for load and retrieval
  - System Technical Assessment
  - Collection frequency for PM2.5
  - Running averages/AQI computed
  - AQS P & A added monitors PM2.5, NO

Software Implementations

- Active Software Development
  - AQS Geospatial Processing
    - » Standard coordinates
    - » Derive data elements based on coordinates
    - » Details tomorrow
  - New Report – BenMAP Raw Data File
    - » Standard retrieval
    - » Delimited record with year of data – long
    - » Standard units, no qualifiers included

Software Implementations

- Active Software Development
  - Part 58 Appendix A revisions
    - » Applicable January 1, 2007
    - » Precision/Bias Data Processing
    - » PQAO - Primary Quality Assurance Organ. required for <u>all</u> monitors by OAQPS QA team– derived from current reporting organization (RO) or RO consolidation
    - » RO consolidation – reduces collocation monitors required - Reg 4, WV,VA, CA (few)

Software Implementations

- Active Software Development
  - Part 58 Appendix A revisions
    - » No change in RP & RA transaction format
    - » New audit level concentrations
    - » New calculation formulas
    - » Pre 2007 data not recomputed
    - » No P/B summary statistics stored in database
      - AMP240 report not available after 2006 data

Software Implementations

- Active Software Development
  - Part 58 Appendix A revisions
    - » Report AMP255 computes new statistics
    - » Modify retrievals/reports to replace Reporting Organization with PQAO after effective date of January 1, 2007