National Atmospheric Deposition Program
Spring Meeting 2006, Riverside, CA

DRAFT - Data Management and Analysis Subcommittee Minutes

Tuesday, 5/2/06

AIRMoN data availability

Tom Butler: Need for AIRMoN data to have a higher profile on the NADP website and in annual summaries. AIRMoN data should be easily accessible with annual or seasonal summaries. Development of trend or warm/dry season maps would also be beneficial.

Bob Larson: Data access links go to NTN data by default. Perhaps a "Map Page" could be developed with links to all networks.

Motion by Tom Butler: NADP Program Office will expand AIRMoN data availability with annual and seasonal analyte volume-weighted means and maps by fall meeting.
Passed

Motion by Tom Butler: DMAS offers guidance to NADP Director to include additional AIRMoN data products in 2005 Annual Summary.
Passed

Standardization of validation coding across networks

Bob Larson: Can data coding be standardized across labs and the PO (e.g. A, B, C validation coding)?

General Discussion: Is A/B/C coding useful? Do data user partition data using these codes, and if so, how? Are there real analytical differences between A and B coded samples? Perhaps Valid/Invalid coding system is more practical.

Chul-Un Ro: Data management at labs and PO may want to retain a more complex coding system while offering a simpler system to data users.

Motion by Bob Larson: Bob Larson will develop and present to DMAS a proposal for standardizing and simplifying the validation coding system.
Passed

Changes to NTN data display (significant digits)

Bob Larson: Problems have been identified with null fields in comma-delimited reports. Removal of fixed-width reports should rectify.

Chul-Un Ro: Addition of Latitude/Longitude site data would be helpful for GIS users.

Bob Larson: Can be addressed using spatial vs. temporal data retrieval with options for retrieving Lat/Long data.

Update on use of site history in validation coding at the CAL

John Ingrum: *Ad hoc* committee with Chris Lehmann and Van Bowersox was formed. Discussions led to explorations of completely new, additional method for analytical validation of contaminated samples. Pilot study is under way - will report findings in fall.

High Elevation Site Data Issues

General discussion: Will changes to criteria for high elevation sites affect the way we interpret historical data? Should we now reinterpret historical data in light of new criteria?

Ideal Network Design (with EROS)

See EROS minutes

Adjourned, to reconvene 5/3/06

Wednesday, 5/3/06

Future of data processing: electronic data acquisition, management, and validation

General discussion: Electronic raingages are now being implemented at NTN sites. Will AIRMoN implement electronic gages?

Bob Larson: The Program is approaching a data acquisition paradigm shift. Electronic data will first be transferred automatically to the PO and then to CAL/HAL from PO. There may be some limited types of screening of data at the PO prior to transfer to labs but data problems will continue to be resolved at the CAL/HAL.

NERF – Benefits include: less costly, rapid screening, better reported data (e.g. initial data screening by operator with PDA).

Karen Harlin: The CAL has been implementing early, automated data screening procedures at the level of first entry. Perhaps some of these may be transferred to operator/PDA level. Perhaps a trial of 10 or so sites using PDAs and electronic gages could be done to identify initial problems with the system. If paper FORFs are used as back-up system during PDA failures we would have to keep both acquisition systems (electronic and manual entry) in place.

Chris Rogers: Some sites will continue with paper products indefinitely. There will be a mix of paper/electronic systems throughout the network.

Karen Harlin: Fiscal benefits of electronic gages/NERF will only occur if PO decreases payments to labs. During the first couple of years of side by side comparisons costs will increase.

Chris Rogers: How will electronic gages be calibrated?
Bob Larson: Only weight checks are required, no other calibration is necessary for electronic gages.

John Ingrum: How will Sampling Protocol coding be done with electronic gage data?
Bob Larson: Need to meet with CAL to discuss what data is needed for collector performance evaluations.

Gary Lear: Concern that use of electronic gage data may lead to a step function in deposition values. A one year Belfort/electronic gage comparison study would answer this.

Motion by Gary Lear: By the executive committee meeting the PO will identify 20-30 well-distributed sites for a 1 year comparison study between Belfort and electronic gage.
Passed

Chris Rogers: Suggest that an SOP be developed for electronic gage checks by the executive committee meeting. Addition of the following to Fall DMAS agenda: 1) Validation codes for electronic gage precipitation data, 2) SOPs for electronic gage maintenance, 3) SOPs fro data retrieval.

MDN coding

Motion by Bob Brunette: Accept MDN QR Coding as outlined in handout by Chris Lehmann (see handout)
Second: Chris Rogers
Passed

Methyl mercury database

The following documents are needed from the HAL: 1) Field Site Operations Manual (needs review), 2) Database Manual, 3) LAB Quality Assurance Plan

MDLs

Chris Lehmann: The QAG would like to have all NTN raw data (data below MDL) available on the website.

Gary Lear?: Fall DMAS agenda topic: How should the PO deal with values below the MDL?

Chris Lehmann: A "Network Maximum Contamination Limit?" based on USGS field blanks should be developed to determine levels of noise from field exposure. When annual averages are determined, data from "clean sites" may be erroneous since PO takes ½ of 1985 minimum reporting limit for values below MDL.

Motion by Chris Rogers: For methyl mercury, raw analytical data will be reported in the database with a flag applied to those data that fall below the MDL.
Passed

Adjourned