National Monitoring Programs
Annual Report for 2013

National Air Toxics Monitoring and Data Analysis Workshop

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Eastern Research Group, Inc. is EPA’s national contract laboratory for the NMP contract.

We are tasked with writing a report to summarize the data generated under the contract.

These reports can be found at http://www3.epa.gov/ttnamti1/uatm.html
2013 NMP Annual Report

- VOCs (Method TO-15)
- SNMOCs (often concurrent with TO-15)
- Carbonyl Compounds (Method TO-11A)
- PAHs (Method TO-13A)
- Metals (Pb-FEM)
- Hexavalent Chromium (ASTM D7614)
2013 NMP Annual Report

- NATTS, UATMP, CSATAM sites
- Samples collected Jan 2013 to Dec 2013
- Up to 12 months of sampling
- 24 hour samples
- 1-in-6 or 1-in-12 day sampling schedules

- Some 263,000 concentrations were produced from 9,400 valid samples collected during the monitoring 2013 effort!
66 monitoring sites in/near 40 urban/rural areas across 25 states and the District of Columbia.

NATTS (25 sites), UATMP (39 sites), CSATAM (2 sites)
2013 NMP Annual Report

Report Organization:
- Introduction: Programs, Sites, Methods, Pollutants and MDLs, Completeness
- Program – level Data Results
- Site – specific Data Results, grouped by state
The 2013 NMP report includes the following program-level analyses:

- Pollutant- and Method- Specific Detection Rates
- Pollutant-specific Concentration Ranges & Central Tendency Statistics
- Preliminary Risk Screening/Pollutants of Interest identification
- Variability Analyses: Inter-site Comparison & Quarterly Average Comparison
- Method and Analytical Precision
The 2013 NMP report includes the following analyses for each site:

- Site characterizations
- Meteorological information
- Preliminary Risk Screening/Pollutants of Interest
- Quarterly & Annual time-period based average concentrations
- Site-Specific Comparison to Program-level Averages
- Trends graphs, where applicable
- Surrogate Cancer Risk & Noncancer Hazard Approximations
- Emissions Assessment based on Toxicity Potential
compare across sites
- Site high (or low) for certain compounds
- Site is high (or low) year after year
- All sites in one area high (or low) for a given pollutant
- Confidence interval comparison
Inter-Site Variability (Benzene)
Inter-Site Variability (p-dichlorobenzene)
Concentration Comparison (Acetaldehyde)
Concentration Comparison (Acetaldehyde)

Program: 1st Quartile 2nd Quartile 3rd Quartile 4th Quartile Average
Site: Site Average Site Concentration Range
Concentration Comparison (Naphthalene)
Quarterly Average Concentration Comparison (Formaldehyde)
Trends Analysis

- Minimum & Maximum Concentrations
- Median Concentration
- 5th & 95th Percentiles
- Average Concentration
Trends Analysis (Benzene)
Trends Analysis (Acetaldehyde)
Trends Analysis (1,2-Dichloroethane)
Trends Analysis (1,2-Dichloroethane)

Maximum Concentration for 2008 is 0.41 µg/m³
Point Source Emissions Locations

Legend

STUT NATTS site
10 mile radius
County boundary

Source Category Group (No. of Facilities)

- Airport/Alpine/Airport Support Operations (8)
- Asphalt Production/Hot Mix Asphalt Plant (2)
- Bulk Terminals/Bulk Plants (1)
- Electricity Generation via Combustion (2)
- Industrial Machinery or Equipment Plant (2)
- Institutional (school, hospital, prison, etc.) (1)
- Rail Yard/Rel Line Operations (2)
- Landfill (1)
- Metals Processing/Fabrication Facility (2)
- Miscellaneous Commercial/Industrial Facility (1)
- Petroleum Refinery (5)

Legend

SJCCA NATTS site
10 mile radius
County boundary

Source Category Group (No. of Facilities)

- Pharmaceuticals/Bio-related Processing Facility (1)
- Industrial/Defense Operations (9)
- Office Building/Medical/Office/Commercial (1)
- Manufacturing/Processing Facility (5)
- Retail/Recreation (1)
- Health/Other Operations (1)
- Other (64)
- Miscellaneous Commercial/Industrial Facility (10)
- Military Base (1)
- Municipal Waste Incineration Facility (1)
- Oil Refining/Processing Operations (23)
- Metal Working/Blacksmithing (1)
- Petroleum Refining (10)
- Medical Waste Incineration Facility (1)
- Miscellaneous Commercial/Industrial Facility (22)
- Miscellaneous Waste Incineration Facility (2)
- Waste Treatment Facility (22)

Note: Due to facility density and location, the total facilities displayed may not represent all facilities within the area of interest.
We look forward to your comments and thank you for your time.

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