

January 6, 2005

Mr. Doug Neeley, Chief
Air Toxics & Monitoring Branch
US EPA - Region 4
Sam Nunn - Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303

Subject: Changes to Alabama's Particulate Monitoring Network

Dear Mr. Neeley,

During a recent US EPA data validation at the Phenix City, Alabama PM 2.5 site, two issues were identified which need to be addressed. Eight data points were identified as suspect in the 2001 and 2002 PM 2.5 data from the Phenix City monitor (AQS ID 01-113-0001) that ADEM had identified as outliers due to the very low concentrations. Also, several US EPA visitors to the site indicated that even though it met the minimum probe siting requirements, its data may be influenced by the surrounding buildings and parking lot.

At the time of data submittal ADEM could not identify any evidence of monitor malfunction related to the outlier data points. The values identified as outliers with the corresponding values from the nearest PM 2.5 monitors are listed in the table below.

	Phenix City	Columbus HD	Columbus Cussetta Rd
2001/01/28	0.5		24.4
2001/07/09	1.8	25.1	26.8
2001/12/06	1.6	19.4	12.1
2001/12/09	0.5	12.8	14.2
2001/12/12	0.5		11.7
2001/12/15	0	8.3	8.4
2002/03/06	1	20	
2002/06/22	1		7.3

The monitor information, field data sheets and quality assurance data did not indicate any malfunction at this site. However, during routine data validation by ADEM, a statistical test was used to compare these data to other data in the state and the test indicated these data were outliers. ADEM submitted the data with the outlier flag to the AQS database. During EPA's data validation process, conducted by Greg Noah and Jerry Burger, ADEM's 5 minute electronic data for this monitor was examined and unusually low pressure drop readings were discovered for seven of the data points. This could indicate that the monitor filter transport mechanism did not fully seal around the filters and this caused a leak in the system. Due to this finding Mr. Noah recommended in a

phone conversation that seven of the outlier values should be voided. ADEM would like to modify the data to change all of the values listed above to the null data code of 9980 (machine malfunction) except for the June 6, 2002 value, which had no unusual pressure reading.

During US EPA visits to the site Mr. Burger and yourself indicated that the monitor placement may be unduly influenced by its proximity to buildings and the Russell County Courthouse parking lot. It was suggested that a better location would have been on the roof of the adjacent courthouse building. ADEM has been in contact with the County Administrator and inspected the courthouse roof. ADEM has determined that the roof location is feasible and agrees that the monitors should be relocated to this area. This would be a move of approximately 50 meters and would give an unobstructed siting of the area this monitor is intended to represent. Please see the attached photos of the two locations. ADEM is making arrangements to accomplish this move and would like to begin sampling at the new location in the beginning of January 2005.

ADEM request your concurrence with these plans. Thank you, for your attention to these matters. If I can provide further information about these issues please do not hesitate to contact me at (334) 260-2747.

Sincerely,

Michael E. Malaier, Chief
Air Assessment Unit

CC: Ken Barrett, Chief
Planning Branch,
Air Division
ADEM

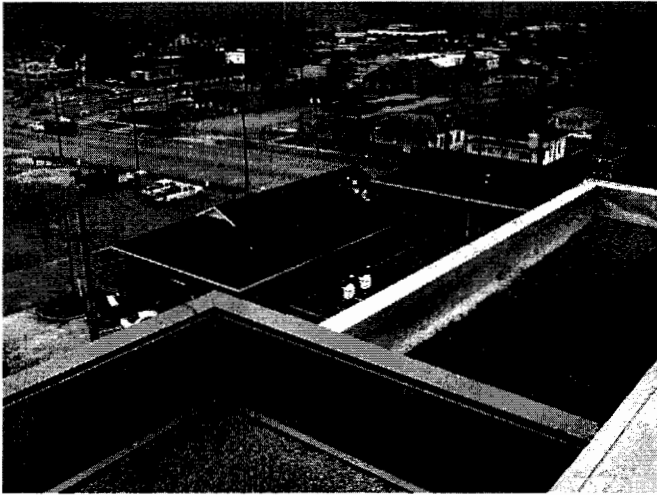


Figure 1 view of existing site from courthouse roof

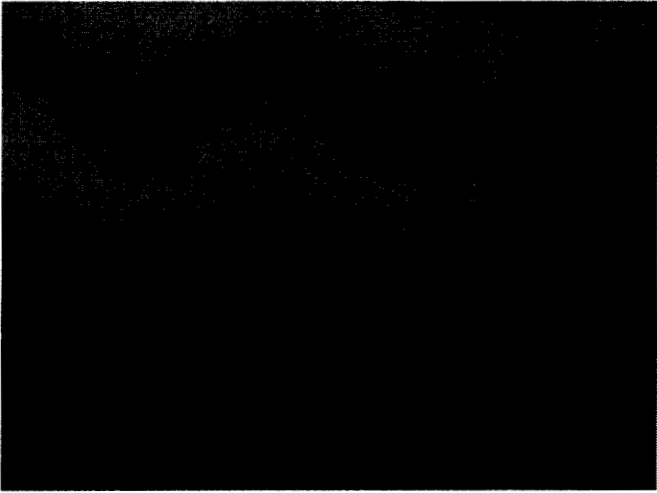


Figure 2 roof view facing Northeast



Figure 3 Roof view facing North



Figure 1 Roof view facing Southeast

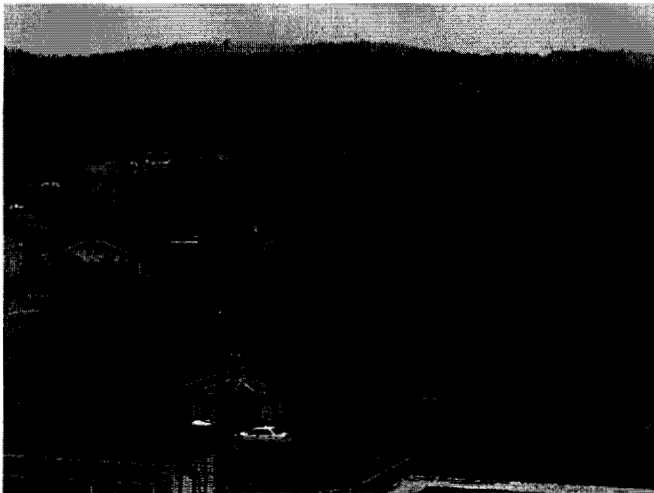


Figure 2 Roof view facing west

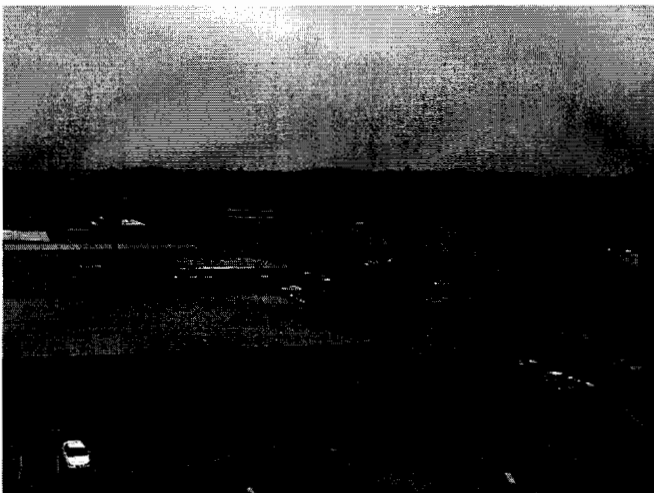


Figure 3 Roof view facing South