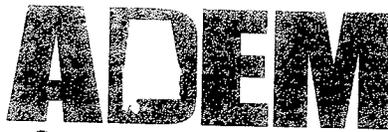


OMIS "TREY" GLENN, III  
DIRECTOR



Alabama Department of Environmental Management  
adem.alabama.gov  
1400 Coliseum Blvd. 36110-2059 ♦ Post Office Box 301463  
Montgomery, Alabama 36130-1463  
(334) 271-7700  
FAX (334) 271-7950

BOB RILEY  
GOVERNOR

October 1, 2009

**CERTIFIED MAIL NO. 91 7108 2133 3936 3541 6661**

Mr. A. Stanley Meiburg  
Regional Administrator  
U.S. EPA, Region 4  
Atlanta Federal Center  
61 Forsyth Street, S.W.  
Atlanta, Georgia 30303-8960



Dear Mr. Meiburg:

Enclosed is the State's input regarding the extent of nonattainment areas for the Lead National Ambient Air Quality Standard (NAAQS). A letter from the Director of the Alabama Department of Environmental Management and the technical support documents are included.

Should you require additional information, please contact me at (334) 271-7878.

Sincerely,

Christopher M. Howard, Chief  
Planning Branch  
Air Division

CH/mmm/bdc

cc: Carol Kemker, EPA,  
**CERTIFIED MAIL NO.:91 7108 2133 3936 3541 6654**

Richard A. Schutt, EPA  
**CERTIFIED MAIL NO.:91 7108 2133 3936 3541 6647**

Birmingham Branch  
110 Vulcan Road  
Birmingham, AL 35209-4702  
(205) 942-6168  
(205) 941-1603 (Fax)

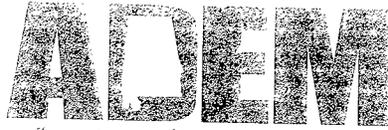
Decatur Branch  
2715 Sandlin Road, S.W.  
Decatur, AL 35603-1333  
(256) 353-1713  
(256) 340-9359 (Fax)

Mobile Branch  
2204 Perimeter Road  
Mobile, AL 36615-1131  
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(251) 479-2593 (Fax)

Mobile - Coastal  
4171 Commanders Drive  
Mobile, AL 36615-1421  
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ONIS "TREY" GLENN, III  
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BOB RILEY  
GOVERNOR

September 30, 2009

Mr. A. Stanley Meiburg  
Acting Regional Administrator  
U.S. EPA, Region 4  
Atlanta Federal Center  
61 Forsyth Street, S.W.  
Atlanta, Georgia 30303-8960

Dear Mr. Meiburg:

The Alabama Department of Environmental Management has been designated by Governor Bob Riley to provide input regarding the extent of the nonattainment area for the Lead National Ambient Air Quality Standard (NAAQS). The information provided in the attachment is based on monitoring data from 2005 to 2008, inclusive. Based on this monitoring data, only a portion of one county in Alabama does not meet the Lead NAAQS.

Enclosed please find our input into the designation process for the extent of lead nonattainment areas. The enclosed appendix provides detailed information on the factors which EPA suggested be addressed in support of the extent of nonattainment areas.

As documented in the attachment, only that portion of Pike County within a radius of 0.8 miles from the Sanders Lead Company should be designated nonattainment for the lead NAAQS.

Should you require additional information, please contact Mr. Ron Gore of the Air Division at 334-271-7868.

Sincerely,

A handwritten signature in black ink, appearing to read "Onis 'Trey' Glenn, III". The signature is fluid and cursive, written over a white background.

Onis "Trey" Glenn, III  
Director

OTG/RWG/ghe

cc: Carol Kemker, EPA Region 4

Enclosure

Birmingham Branch  
110 Vulcan Road  
Birmingham, AL 35209-4702  
(205) 942-6168  
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11

**The State of Alabama's Input  
for  
Designation of Nonattainment Areas  
for the  
Lead  
NAAQS**

**Prepared by:**

**Alabama Department of Environmental Management**

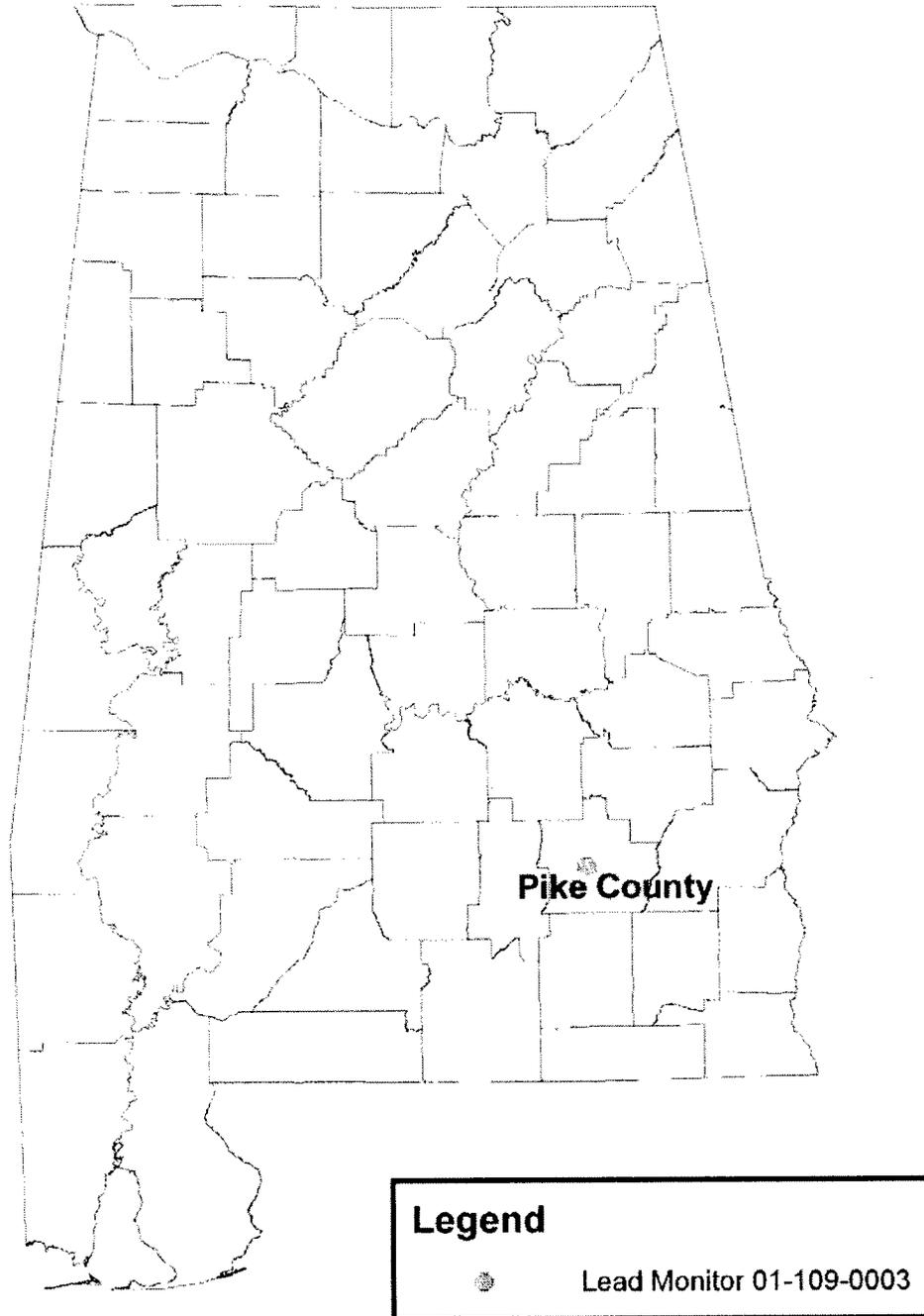
**October 2009**

Alabama Lead Standard Recommendations

Designated Area	Designation Recommendation
Portion of Pike County (as indicated in the appendix)	Nonattainment
<b>Rest of State</b>	Unclassifiable/Attainment
Autauga County Baldwin County Barbour County Bibb County Blount County Bullock County Butler County Calhoun County Chambers County Cherokee County Chilton County Choctaw County Clarke County Clay County Cleburne County Coffee County Colbert County Conecuh County Coosa County Covington County Crenshaw County Cullman County Dale County Dallas County DeKalb County Elmore County Escambia County Fayette County Franklin County Geneva County Greene County Hale County Henry County Houston County Jackson County Lamar County Lauderdale County Lawrence County Lee County Limestone County Lowndes County Macon County Madison County Marengo County Marion County	

Marshall County	Unclassifiable/Attainment 
Mobile County	
Monroe County	
Montgomery County	
Morgan County	
Perry County	
Pickens County	
Pike County (except above)	
Randolph County	
Russell County	
St. Clair County	
Shelby County	
Sumter County	
Tallapoosa County	
Talladega County	
Tuscaloosa County	
Walker County	
Washington County	
Wilcox County	
Winston County	

# Alabama Lead Monitor Location



**Lead DATA (2006 TO 2008) PIKE COUNTY ALABAMA**  
*Units are micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )*  
**Site ID #: 01-109-0003**  
 Standard is  $0.15\mu\text{g}/\text{m}^3$  Based on a Rolling 3-Month Average

Year	Month	Month Average	Rolling 3 Month Average
2005	November	0.260	
	December	0.406	
2006	January	0.810	0.49
	February	0.663	0.63*
	March	0.533	0.67*
	April	0.388	0.53*
	May	0.090	0.34
	June	0.294	0.26
	July	0.590	0.32
	August	0.356	0.41
	September	0.150	0.37
	October	0.272	0.26
	November	0.218	0.21
	December	0.275	0.26
2007	January	0.404	0.30
	February	0.255	0.31
	March	1.420	0.69
	April	0.356	0.68
	May	0.330	0.70
	June	0.632	0.44
	July	0.856	0.61
	August	0.502	0.66
	September	0.594	0.65
	October	1.254	0.78
	November	1.358	1.07
	December	1.434	1.35
2008	January	0.768	1.19
	February	1.418	1.21
	March	1.028	1.07
	April	0.841	1.10

Year	Month	Month Average	3 month Average
	May	0.182	0.68
	June	0.357	0.46
	July	0.345	0.29
	August	0.266	0.32
	September	0.230	0.28
	October	0.264	0.25
	November	0.193	0.23
	December	0.517	0.33

\*Monitoring data do not meet completeness requirements in 40 CFR Part 50 APP R.

Historically, Lead NAAQS violations have been the result of lead emissions from large stationary sources. Sanders Lead Company, located in Pike County, Alabama, is one of two large stationary sources in the State that reported lead emissions over 1 ton per year (tpy). The other is Anniston Army Depot, which is located in Calhoun County. Modeling strongly suggests exemption of a site-oriented monitor at this facility. (The e-mail requesting a lead waiver sent by Leigh Bacon, ADEM, to Doug Neeley and Lynorae Benjamin, EPA, July 1, 2009, is located in Appendix B). The only active lead monitor in the State of Alabama is located near Sanders Lead Company.

Between July 2005 and June 2006, the Jefferson County Department of Health (JCDH) conducted an air monitoring study of a large number of toxic air pollutants at four locations in the Jefferson County, Alabama, area. The four sites were East Thomas, North Birmingham, Providence and Shuttlesworth. Table 1 depicts the maximum rolling 3-month average lead concentration at each site. All values were less than half the lead NAAQS.

**Table 1 Jefferson County Lead Monitoring Results ( $\mu\text{g}/\text{m}^3$ )  
Maximum Rolling 3-Month Averages**

<b>East Thomas</b>	<b>North Birmingham</b>	<b>Providence</b>	<b>Shuttlesworth</b>
0.02	0.03	0.01	0.03

## APPENDIX A

Lead is a heavy metal and does not travel long distances. ADEM recommends that the Nonattainment Area (NAA) for the Lead NAAQS consist of an area within Pike County with a radius of eight-tenths of a mile from Sanders Lead Company (latitude 31.78627106°: longitude 85.97862228°), and exclude all other areas within Pike County. This area is shown in Figure 2.

EPA recommends that states address certain factors when making recommendations. Full discussion of each of these factors is provided in this Appendix.

The factors that provide the most compelling evidence to exclude all other areas are listed below:

- Emissions
- Monitoring Results
- Location of Emission Sources
- Meteorology

---

## A. Emissions

Emissions data were obtained from EPA's 2005 NEI database. Table 2 lists lead emissions from point sources. Total area source lead emissions are 0.0026 (tpy). Apart from Sanders Lead Co., emissions originating from within Pike County are not substantial enough to produce exceedances of the NAAQS for lead. This factor fortifies the recommendation to exclude all other areas from the recommended nonattainment area within Pike County.

**Table 2 Point Source Lead Emissions in Pike County**

Facility Name	Emissions (tpy)	Source Code	NEI SITE ID
Sanders Lead	4.441	R	NEI 18383
KW Plastics	0.01	T	NEIALT\$463

There are no other stationary lead sources in Pike County nor any major sources of lead in the counties surrounding Pike County, Alabama. The counties adjacent to Pike County are depicted in Figure 1. To evaluate emissions from these counties, ADEM obtained the 2002 annual lead emissions from EPA's website<sup>1</sup>. Counties surrounding Pike County were selected. Total lead emissions for each county were calculated by adding lead emissions from each source sector within that county. These emissions are depicted in Table 3.

**Table 3 Annual Lead Emissions for Counties Adjacent to Pike County**

County	2002 Lead Emissions (Tons)
Montgomery	0.925
Bullock	0
Barbour	0.172
Dale	0.854
Coffee	0.137
Crenshaw	0.001
Pike (Emissions from Sanders Lead only)	4.680 (4.43)

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<sup>1</sup> <http://www.epa.gov/air/emissions/pb.htm#pbloc>

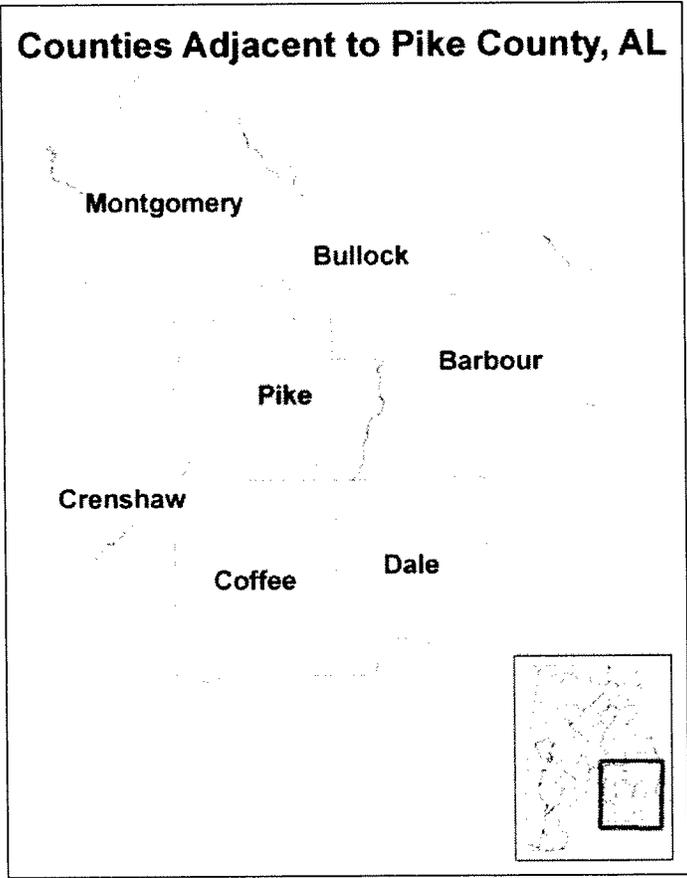


FIGURE 1

## B. Monitoring Results

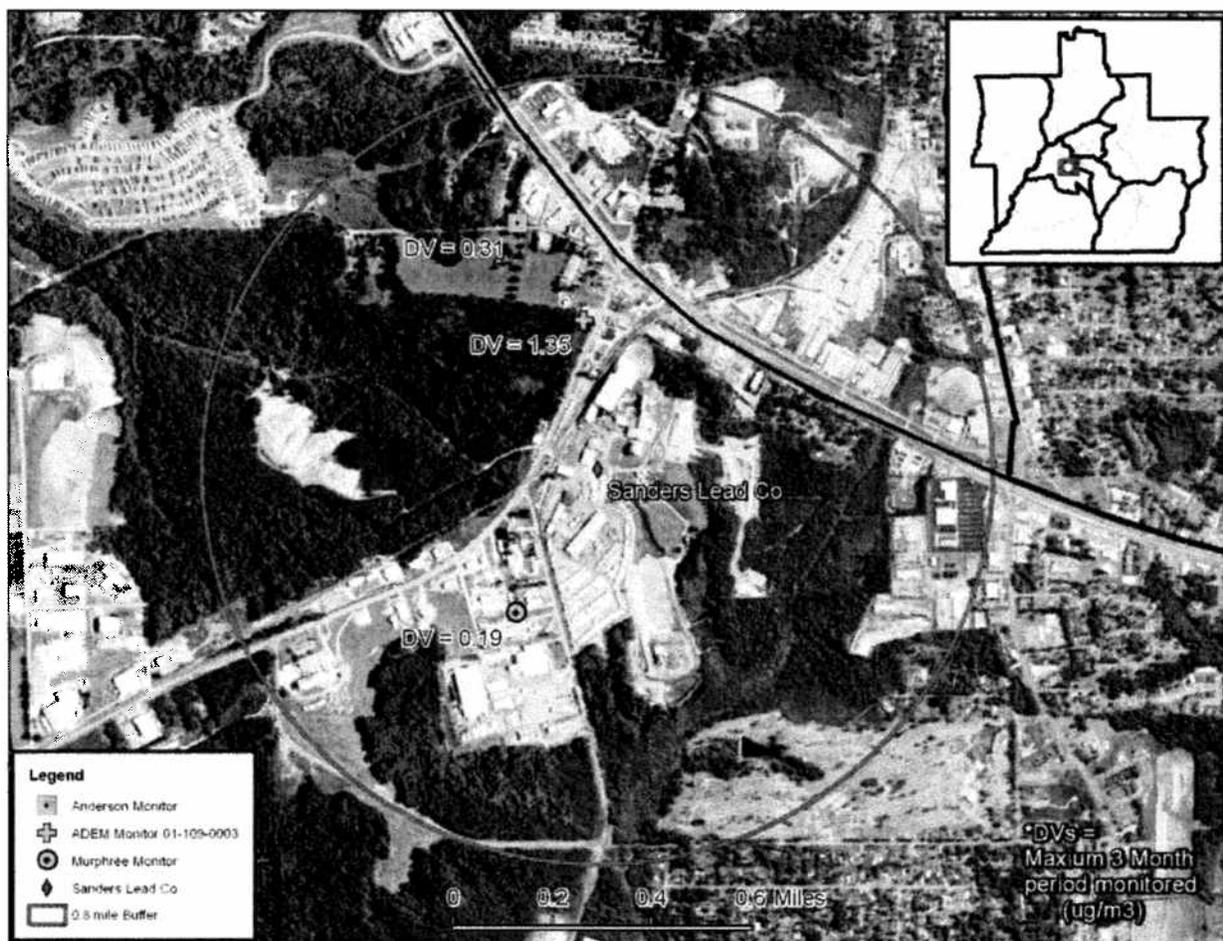
Apart from one State-owned operating monitor, there are two monitors owned by Sanders Lead Company (Anderson and Murphree) sited near this facility. Table 4 lists the maximum rolling 3-month average at each monitor, observed over the last 3 years (November 2005 to August 2009). Figure 2 depicts the location of each monitor in regard to Sanders Lead Company.

**Table 4 Maximum Quarterly Lead Concentrations (November 2005 to August 2009)**

ADEM (1) $\mu\text{g}/\text{m}^3$	ADEM (2) $\mu\text{g}/\text{m}^3$ *	Anderson $\mu\text{g}/\text{m}^3$	Murphree $\mu\text{g}/\text{m}^3$
1.35	0.29	0.31	0.19

\* ADEM (2) was closed in August 2007. Maximum rolling 3-month average was calculated using data from June 2004 to August 2007.

**FIGURE 2 LOCATIONS OF LEAD MONITORS and MAXIMUM QUARTERLY VALUES**



A combination of monitoring and modeling was used to estimate the approximate distance at which quarterly lead concentrations would be expected to be below the NAAQS of  $0.15\mu\text{g}/\text{m}^3$ . As shown in the figure above, this distance was estimated to be 0.8 miles.

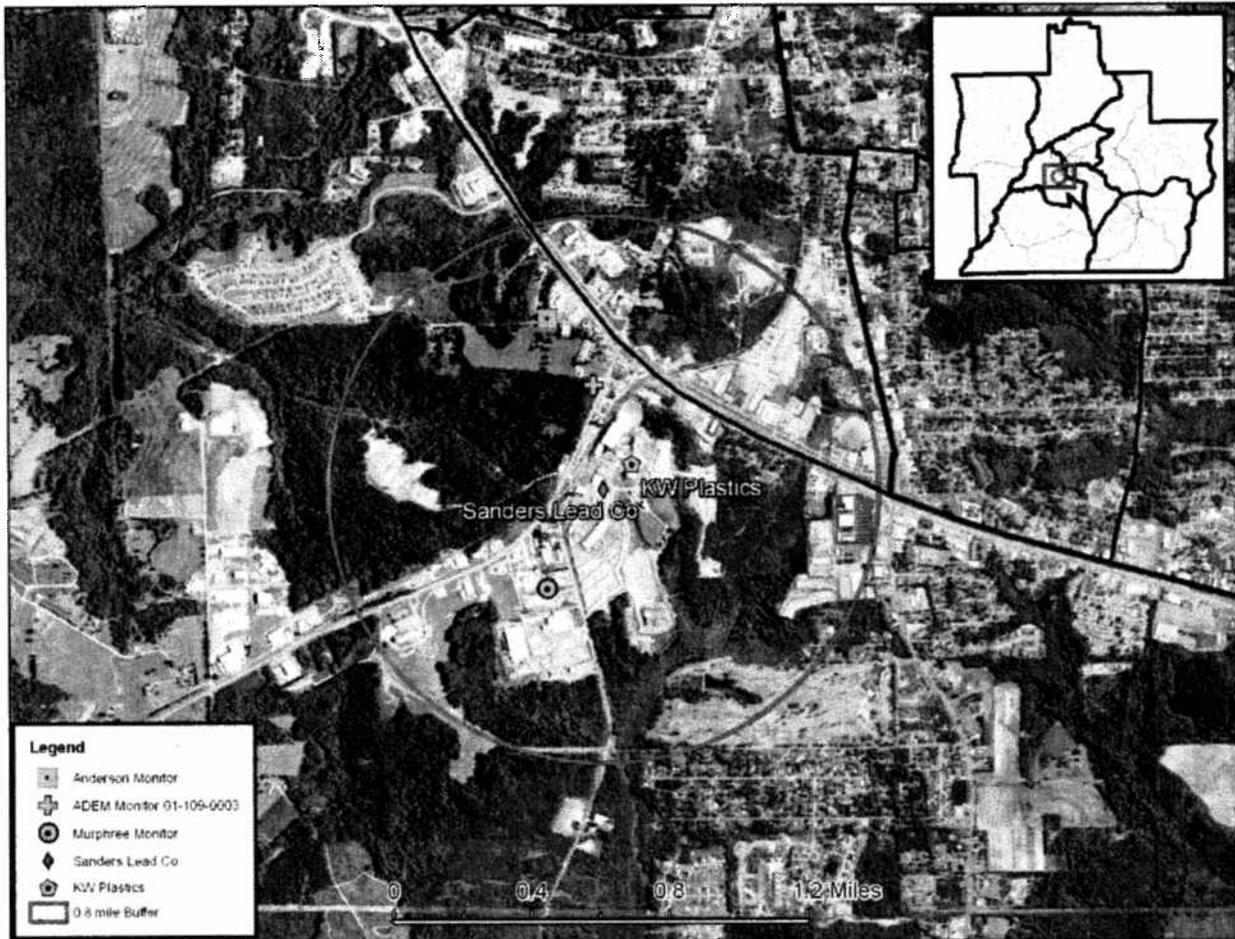
**C. Location of Emission Sources**

Figure 3 depicts the locations of the major point sources of lead emissions within Pike County. Table 5 shows a list of these point sources and their lead emissions. Total emissions were from the 2005 NEI, and the 2005 TRI. Please note that KW Plastics does not produce significant lead emissions; however, it is located within the recommended Lead NAA. The existence of a single significant lead source fortifies the recommendation to exclude all other areas from the nonattainment area within Pike County.

**Table 5 Point Source Lead Emissions**

Facility Name	Emissions (tpy)	Source Code	NEI SITE ID
Sanders Lead	4.441	R	NEI 18383
KW Plastics	0.01	T	NEIALT\$463

**FIGURE 3 LOCATIONS OF POINT SOURCES**



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## D. Meteorology

ADEM performed air quality modeling for lead emissions from Sanders Lead Company located in Troy, Alabama, to determine the estimated spatial extent of predicted concentrations relative to the new quarterly lead NAAQS of  $0.15\mu\text{g}/\text{m}^3$ . Figure 4 depicts the total area modeled.

### AIR QUALITY MODELS:

The American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) was used in default mode for all modeling. Figure 4 depicts the area modeled. AERMAP was used to generate the receptor grid. AERSURFACE was used to generate the surface characteristics around the Sanders facility. AERMET was used to generate the Stage 3 files incorporating the surface characteristics around the Sanders facility. EPA's lead post-processor was used to generate the rolling monthly averages of lead by receptor.

### METEOROLOGICAL DATA:

A surface characteristics analysis was performed by ADEM to determine if the surface characteristics around Sanders were similar to the surface characteristics around the Montgomery (MGM), Alabama National Weather Service (NWS) office. As a result of this analysis, ADEM conservatively decided to utilize the surface characteristics around both the MGM NWS office and the Sanders facility in all modeling and report the highest concentrations between the two. Meteorological data for the years 2001-2005 were used in all modeling.

### LEAD MODELING METHODOLOGY:

As discussed previously, modeling was performed twice for lead using each year of meteorological data. The first round of modeling incorporated the surface characteristics around the MGM NWS office, and the second round incorporated the surface characteristics around the Sanders facility.

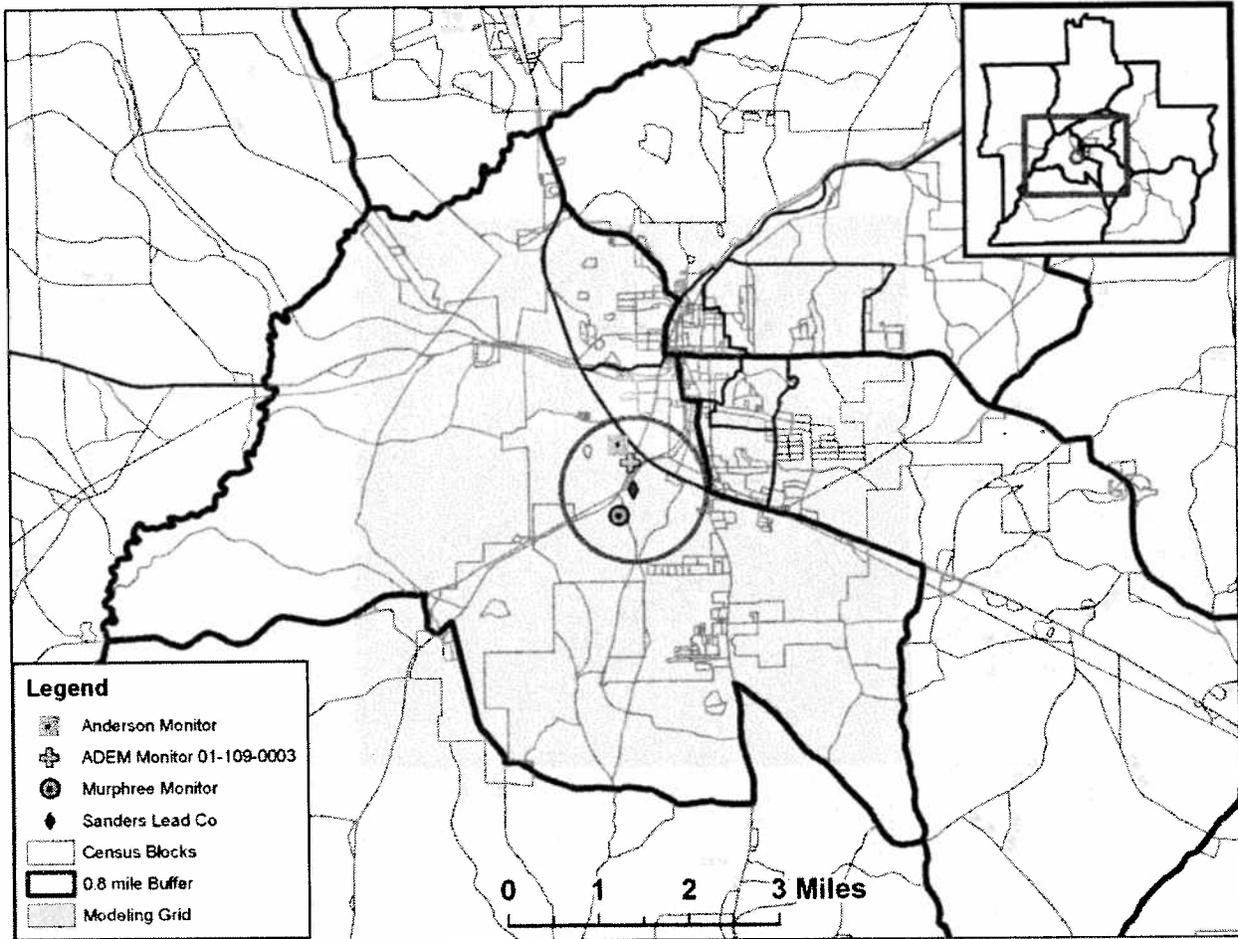
The stack parameters and emission rates that were used in the modeling came from Sanders' Title V permit and the facility.

A 10 kilometer (km) by 10 kilometer discrete Cartesian receptor grid was used in the modeling analysis. All receptors in this grid were spaced 100 meters apart. Receptor terrain elevations were generated using National Elevation Data (NED) that was processed with the EPA AERMAP program. Downwash was also considered for all stacks in the modeling.

This modeling concluded that predicted quarterly lead concentrations would be below the NAAQS of  $0.15\mu\text{g}/\text{m}^3$ , well within 0.8 miles of Sanders Lead Company.

This factor fortifies the recommendation to include an area within Pike County with a radius of 0.8 miles from Sanders Lead Company as the NAA.

**FIGURE 4 AREA MODELED**



## **APPENDIX B**

---

**From:** Bacon, Leigh  
**Sent:** Wednesday, July 01, 2009 3:35 PM  
**To:** Neeley.Doug@epamail.epa.gov; 'benjamin.lynorae@epa.gov'  
**Cc:** Howard, Chris; Hurst, A Dale; Malaier, Mike; Cole, Lisa B; McCloud, Marcelle  
**Subject:** Lead Waiver- Anniston Army Depot, Anniston, Alabama  
**Attachments:** AAD PB summary.doc

Good afternoon! Please find enclosed ADEM's lead summary for the Anniston Army Depot (ANAD) in support of exemption of the facility from site oriented lead monitoring. If you have any questions concerning the summary or would like to discuss any of the details further, please don't hesitate to contact me. Have a great afternoon!

Leigh

Leigh Barb Bacon  
 Chief, Meteorological Section  
 Planning Branch  
 Air Division  
 State of AL-DEM  
 334-270-5689  
[lbb@adem.state.al.us](mailto:lbb@adem.state.al.us)

---

**From:** McCloud, Marcelle  
**Sent:** Tuesday, June 30, 2009 10:54 AM  
**To:** Neeley.Doug@epamail.epa.gov  
**Cc:** Howard, Chris; Hurst, A Dale; Malaier, Mike; Bacon, Leigh; Cole, Lisa B  
**Subject:** Lead Waiver

Doug,

The Alabama Department of Environmental Management received your e-mail dated April 15, 2009 which included a list of facilities with 1 or more tons of lead emissions per year.

The table below shows actual emissions from 2005 to 2007 for Nichols Aluminum in Decatur, and Kerr-McGee (now known as Tronox) in Theodore. This is what we submitted to the NEI in compliance with the Consolidated Emissions Reporting Rule (CERR). This data is quality assured by the assigned engineer before the data is submitted to EPA.

The engineer assigned to Nichols Aluminum communicated that in the past, lead emissions stemmed from a lead chromium primer used to coat aluminum coils, but the company has since changed its operations, and the primer now used does not contain lead.

The engineer assigned to Kerr-McGee communicated that the company was bought and is no longer operating.

We are aware that our data does not correspond with the NEI, but based on language in the final lead NAAQS there seems to be a common understanding that the NEI database may not be very reliable. We have had conversations with EPA regarding the use of old TRI data in the NEI and the conflicts that States have had with this.

Facility Name	City	2005 Lead Emissions (tpy)	2006 Lead Emissions (tpy)	2007 Lead Emissions (tpy)

9/30/2009

NICHOLS ALUMINUM ALABAMA INC.	DECATUR	0.00	0.00	0.04
Kerr-McGee Chemical LLC	THEODORE	0.00	0.00	0.00

The Alabama Department of Environmental Management requests that EPA remove Nichols Aluminum in Decatur, and Kerr-McGee (now known as Tronox) in Theodore, from their list of potential sources needing to monitor.

The Department is currently **evaluating modeling performed by the Anniston Army Depot** in Anniston and have been notified by our meteorologists that the results may be in after the July 1<sup>st</sup>, 2009 deadline.

Please note that our local programs in Jefferson County and the City of Huntsville will respond regarding facility information for their areas.

Thank you for your consideration.

---

*Marcelle McCloud*  
*Air Division*  
*Environmental Scientist*  
*Alabama Department of Environmental Management*  
*1400 Coliseum Boulevard*  
*Montgomery, AL 36110*  
*Phone # 334-270-5693*

Summary of Lead Modeling for the  
Anniston Army Depot (ANAD) - Anniston, Alabama  
ADEM Air Division- July 2009

Overview of Exercise

- Preliminary reporting in ANAD's 2007 Toxic Release Inventory included lead (Pb) emissions of greater than 1 tpy
  - This inventory included abrasive blasting operations in which ANAD considered the milled glass (glass beads) used in these operations as a Lead Compound and reported as such. A review of the Material Safety Data Sheet for the milled glass showed this product NOT being 313 reportable. Consequently, ANAD determined that the point source emissions from abrasive blasting operations using the milled glass should not be included in the point source emissions. ANAD's 2008 TRI report was revised accordingly and submitted electronically to EPA on 6/26/09
  - The majority of the Pb emissions come from open burning and open/buried detonation (OB/OD) activities at ANAD
- Under the revised Pb NAAQS, site oriented monitoring will be required for sources with emissions greater than 1 tpy, unless that source can "model out"
  - The threshold for exclusion is ½ of the NAAQS, which is set at 0.15 µg/m<sup>3</sup>
  - Therefore, a source must show maximum impacts of less than 0.075 µg/m<sup>3</sup> over a rolling three month period

ANAD Background

- ANAD is located in Calhoun County, Alabama, approximately 56 miles east of Birmingham, Alabama
- ANAD covers 15,300 acres of land, of which 2,100 are improved ground
- ANAD was opened in 1941 as a munitions storage depot; currently the primary missions include rebuilding and maintaining combat vehicles/other heavy duty equipment, repairing/rebuilding small arms and artillery units and storing ammunition and lethal unitary chemical agents

OB/OD Operations at the AAD

- The treatment and disposal of conventional waste military munitions and associated energetic wastes at ANAD are conducted at the OB unit in burn pans and at the OD unit via detonation on the soil surface (OD) or buried in soil covered pits (BD)
  - The OB unit consists of 13 open pans, only 10 of which are in use. Each unit measures 4.9 meters long, 1.2 meters wide and 0.3 meters high, and are located on a clear plot of approximately 122 by 244 meters
  - The OD unit covers an area approximately 365 by 92 meters, and is used for surface detonations at up to 8 detonation stations

Emissions Calculations

- Modeling was performed by ANAD for the open burning/ open/buried detonation units at the facility as part of a Resource Conservation and Recovery Act (RCRA) Risk Assessment Analysis (RA)
- As part of the RA, first a proposed list of Constituents of Potential Concern (COPCs) was developed. This list contained a large number of COPCs, including Pb

- Emission rates for each COPC were estimated using emission factors obtained from studies conducted in BangBox experiments as well as those predicted by POLU14 modeling and through mass balance equations
  - A conservative approach was consistently employed in the final selection of emission factors. In cases where emissions data was available from multiple sources, the highest value was used
  - Site specific emissions factors were derived for both acute and chronic exposure modeling
    - For acute exposure modeling, the highest value emission factor was selected from all of the energetic category sets of emission factors for the 1 hour period, guaranteeing the highest possible emissions were predicted

### Modeling Discussion

- Modeling was performed with Version 1.3 of the Open Burning/Open Detonation Dispersion Model (OBODM) developed by the U.S. Army (at the Dugway Proving Ground), and listed as an EPA Appendix W Alternative Model
  - OBODM is intended for use in evaluating the potential air quality impacts of the open burning and detonation (OB/OD) of obsolete munitions and solid propellants. OBODM uses cloud/plume rise dispersion, and deposition algorithms taken from existing models for instantaneous and quasi-continuous sources to predict the downwind transport and dispersion of pollutants released by OB/OD operations
  - The algorithms included within the model include those from the Industrial Source Complex (ISC) model
  - OBODM uses meteorological data, emission source characteristic data, land use data, terrain and receptor location data to determine air concentrations and gravitational deposition
- Modeling was performed in accordance with the EPA 2005 Final Human Health Risk Assessment Protocol (HHRAP) for Hazardous Waste Combustion Facilities
- The objective of the RA was to conservatively evaluate the potential risk to humans and ecological receptors from operation of the OB/OD units, using on and off site receptors
- The meteorological data used in the RA was measured at an onsite meteorological tower operated by the U.S. Army for the Anniston Chemical Demilitarization Facility (ANCDF) located to the east of the OB/OD areas
  - This data was used in support of both the RA for the ANCDF and the PSD permit for the facility
  - The data covers July 1, 1998 through June 30, 1999 with data completeness of over 98% for the period
  - This data was required for use with the ANAD RA for consistency between the two assessments and also to quantify cumulative risk from both operations
- The receptor grid used for the ANAD included some of the receptor grids used by the ANCDF for consistency
  - An initial screening run was performed with three sets of receptors with receptors spaced 300 meters apart, 500 meters apart and 1000 meters apart, including fence-line receptors
  - The results of these runs indicated that the maximum air and deposition impacts offsite occurred along the western and northern borders of the facility

- Additionally, a refined grid with 100 meter spacing was placed in the vicinity of these maximum impacts for evaluation of chronic risk
- To provide additional information for the onsite exposure scenario (acute risk), a 100 meter spaced grid was used to model operational scenarios with the potential to exceed acute and chronic risk thresholds (including Pb)
  - This is the same grid used in the ANCDF RA

Modeling Results

- Modeling was completed with OBODM using a unitized emission rate, which was then ratioed by pollutant to provide media specific impacts (inhalation and deposition)
- Air inhalation annual average and 1 hour average concentrations of COPCs were calculated by summing the particle and vapor phase modeling results
- The methodology for calculating emission rates laid out in the RA represents the best estimates of Pb emissions possible from these types of operations
  - The ANAD maintains that there are no detectable Pb emissions from OB/OD and, as such, assumed emission rates based on the minimum detection levels possible in the RA modeling. ADEM agrees with this assertion.
- However, preliminary 2008 TRI emissions estimates submitted to EPA were more conservative than the RA emissions estimates; therefore the concentrations from the RA modeling were scaled to represent what the maximum concentration would be assuming the TRI emissions.
- The following results represent the maximum 1 hour concentrations from both the OB/OD operations scaled to the TRI emission rates for fugitive sources, including OB/OD. Please note that the maximum 1 hour concentration occurs on property, providing an additional level of conservatism in the results.

Scaled ANAD Pb Modeling Results

Pb Results	1 hour Concentration*	NAAQS Pb*	Threshold Level	Percent of Threshold
Maximum (occurs onsite)	0.0018 µg/m <sup>3</sup>	0.15 µg/m <sup>3</sup>	0.075 µg/m <sup>3</sup>	2.4%

\*- based on the maximum 3 month rolling average over 3 years scaled from the RCRA RA to the 2008 ANAD TRI.

Uncertainties

- Uncertainties are a part of any air dispersion modeling analysis because of the limitations of the available data and the assumptions within the model. The following uncertainties lend credence to the conclusion that lead monitoring is not necessary as a result of OB/OD activities at the ANAD.
  - The largest assumption made was that the emissions were continuous over the averaging times; 1 hour acute and multi year chronic. In actuality, burn times are extremely small, less than a minute, and detonation is nearly instantaneous. However, they were modeled as if continuous. Additionally, the maximum number of simulations possible per day were modeled, when in actuality the facility will be limited in the number of burns/detonations can occur. Lastly, the risk considered OB and OD operations occurring simultaneously. All of these assumptions overestimate maximum predicted concentrations.
- The results above provide the maximum 1 hour predicted concentration. The Pb NAAQS is a rolling 3 month average. If the maximum 1 hour air concentration is less than ½ of the

established NAAQS, it clearly demonstrates that the 3 month average would also be well below the NAAQS. It is also of note that this maximum predicted concentration is reported on property, ensuring additional conservatism in the results.

- The established emission rate, based on testing of these types of operations (i.e. Bang Box testing) is clearly the best way to determine emission rates. However, for conservatism, the 2008 TRI emissions estimates were scaled to the RA concentrations, producing onsite impacts that are still an order of magnitude below the exemption threshold.
  - Additionally, it was assumed that all of the fugitive emissions in the 2008 TRI were associated with the OB/OD units. While the vast majority of the emissions reported were likely from the OB/OD operations, not all of the emissions were, adding additional conservatism.
- While the ADEM Air Division has not fully reviewed the modeling associated with the RA, the Division has been involved with the project since its inception, and is confident that the modeling methodology will conform to the requirements of the RCRA program.

### Conclusion

The results of the OBODM modeling completed as part of the ANAD RA for the OB/OD activities support ADEM's position that Pb monitoring should not be required for this facility.

