

Template for Technical Support Document

Definition of important terms used in this document:

1) **Designated "unclassifiable"** – an area where EPA could not determine if there was a violation of the 2008 Lead NAAQS or a contribution to a violation in a nearby area, because there was insufficient air quality data for both 2006-2008 and 2007-2009 and where additional monitoring data for 2010 could not result in a different designation.

2) **Designated "attainment"** – an area which EPA has determined, based on the most recent 3 years of certified air quality data from 2006-2008 or 2007-2009, has no violations of the 2008 Lead NAAQS during 36 consecutive valid 3-month site means; and which EPA has further determined does not contribute to a violation of the 2008 Lead NAAQS in a nearby area and that additional monitoring data from 2010 could not result in a different designation.

3) **Designated nonattainment area** – an area which EPA has determined, based on a State recommendation and/or on the technical analysis included in this document, has a violation of the 2008 Lead NAAQS during the most recent three consecutive years of quality-assured, certified air quality data.

4) **Prior nonattainment area** – an area that is currently designated as nonattainment or maintenance for the 1978 Lead Standard (including both current nonattainment areas and maintenance areas).

5) **Recommended nonattainment area** – an area a State or Tribe has recommended to EPA be designated as nonattainment.

6) **Violating monitor** – an ambient air monitor whose design value exceeds 0.15 micrograms per cubic meter (ug/m3). As described in Appendix R of part 50, a violation can be based on either Pb-TSP or Pb-PM10 data and only three months of data are necessary to produce a valid violating design value.

7) **1978 Lead NAAQS** – 1.5 μ g/m³, National Ambient Air Quality Standard for lead promulgated in 1978. Based on Pb-TSP indicator and averaged over a calendar quarter.

8) **2008 Lead NAAQS** - $0.15 \,\mu\text{g/m}^3$, National Ambient Air Quality Standard for lead promulgated in 2008. Based on Pb-TSP indicator and a three-month rolling average. Pb-PM10 data may be used in limited instances, including to show nonattainment.

Texas Area Designations For the 2008 Lead National Ambient Air Quality Standards

EPA has revised the level of the primary (health-based) standard from 1.5 micrograms per cubic meter ($\mu g/m^3$) to 0.15 $\mu g/m^3$ measured as total suspended particles (TSP). EPA has revised the secondary (welfare-based) standard to be identical in all respects to the primary standard.

Pursuant to section 107(d) of the Clean Air Act, EPA must designate as "nonattainment" those areas that violate the NAAQS and those nearby areas that contribute to violations. The table below identifies the counties or portions of counties (or tribal areas) in Texas that EPA is designating "nonattainment" for the 2008 lead national ambient air quality standard (2008 Lead NAAQS).

Table 1

Area (listed	[Texas] Recommended Nonattainment	EPA's Designated Nonattainment	Nonattainment area for 1978 Lead
alphabetically)	Counties	Counties	NAAQS
Frisco	Collin County (partial)	Collin County (partial)	Collin County
			(partial)

Technical analysis for Frisco

Introduction

This technical analysis for Frisco, Texas area identifies the partial county with a monitor(s) that violates the 2008 Lead NAAQS and evaluates nearby counties for contributions to lead concentrations in the area. EPA has evaluated these counties based on the weight of evidence of the following factors recommended in previous EPA guidance:

- Air quality in potentially included versus excluded areas;
- Emissions and emissions-related data in areas potentially included versus excluded from the nonattainment area, including population data, growth rates and patterns and emissions controls;
- Meteorology (weather/transport patterns);
- Geography/topography (mountain ranges or other air basin boundaries);
- Jurisdictional boundaries (e.g., counties, air districts, reservations, etc.); and
- Any other relevant information submitted to or collected by EPA (e.g., modeling where done appropriately).

Figure 1 is a map of the area analyzed showing the locations and design values of air quality monitors in the area, and the counties surrounding any violating air quality monitors (Exide facility was previously called GNB).



Figure 1: Frisco, Texas recommended nonattainment

For this area, EPA previously established lead nonattainment boundaries for the 1978 Lead NAAQS that included a portion of Collin County located in Texas. For each revision to a NAAQS EPA is required to conduct a separate designation action, which may result in the same or a different nonattainment boundary.

In October 2009, Texas recommended that a portion of Collin County be designated as "nonattainment" for the 2008 Lead NAAQS based on air quality data from 2006-2008. Their recommendation was based on data from (a) Federal Reference Method (FRM) or Federal Equivalent Method (FEM) monitor(s) located in the state. Texas' recommendation was submitted in a letter from Governor Rick Perry, and dated October 14, 2009. In October 2010, Exide submitted a permit alteration request to TCEQ documenting a reduction in permitted maximum allowable emission rates for some sources. On October 6, 2010 TCEQ issued a permit alteration to the facility revising the permitted maximum allowable emission rates. TCEQ performed dispersion modeling to address those emission reductions in order to determine a revised boundary of the nonattainment area. On October 13, 2010, the Governor of Texas submitted a revised lead nonattainment area boundary recommendation to EPA based on TCEQ modeling that incorporated the reduced permit allowable limits, reducing the size of the nonattainment area.

Based on EPA's technical analysis described below, EPA is designating a portion of Collin County, Texas as nonattainment for the 2008 Lead NAAQS based upon currently available information. This county is listed above in Table 1.

Detailed Assessment

Air Quality Data

This factor considers the Lead design values (in $\mu g/m^3$) for air quality monitors in Collin County in the Frisco area as well as the surrounding area based on data for the 2006-2008 period. A monitor's design value indicates whether that monitor attains a specified air quality standard. The 2008 Lead NAAQS are met at a monitoring site when the identified design value is valid and less than or equal to 0.15 $\mu g/m^3$. A design value is only valid if minimum data completeness criteria are met. A Lead design value that meets the NAAQS is generally considered valid if it encompasses 36 consecutive valid 3-month site means (specifically for a 3-year calendar period and the two previous months). For this purpose, a 3-month site mean is valid if valid data were obtained for at least 75 percent of the scheduled monitoring days in the 3-month period. A Lead design value that does not meet the NAAQS is considered valid if at least one 3-month mean that meets the same 75 percent requirement is above the NAAQS. That is, a site does not have to monitor for three full calendar years in order to have a valid violating design value; a site could monitor just three months and still produce a valid (violating) design value.

The 2008 Lead NAAQS design values for Collin County in Frisco and surrounding area are shown in Table 2.

State	Monitor Name	Monitor Air	Monitor Locatio	Lead Design	Lead Design
Recommended		Quality		Value,	Value
		System ID		2006 - 2008	2007-2009
Nonattainment?				$(\mu g/m^3)$	$(\mu g/m^3)$
Yes	5^{th} St.	48-085-	W. 5^{th} St.	0.28	0.33
		0003			
	Ash St.	48-085-	6931 Ash St.	0.17	0.17
		0007			
	N. property	48-085- 0009	Next to north property line on facility	1.26*	1.26*
	Recommended Nonattainment?	Recommended Nonattainment? Yes 5 th St. Ash St.	RecommendedQuality System IDNonattainment?VesYes5th St.48-085- 0003Ash St.48-085- 0007N. property48-085-	RecommendedQuality System IDNonattainment?Quality System IDYes5 th St.48-085- 0003Ash St.48-085- 00076931 Ash St.N. property48-085- 0007Next to north property line	Recommended Nonattainment? Quality System ID Value, 2006 - 2008 (μg/m ³) Yes 5 th St. 48-085- 0003 W. 5 th St. 0.28 Ash St. 48-085- 0007 6931 Ash St. 0.17 N. property 48-085- 0009 Next to north property line on facility 1.26*

Table 2.Air Quality Data

*Monitor in Bold has the highest design value in the respective county. As discussed in the response to comments, this monitor has been listed as a SLAMS monitor and the data has been reported by the State as ambient data for the last three years. EPA understands that Texas now believes the data from this monitor should be designated as non-regulatory data. This issue will be addressed through future discussions with the State. As noted by TCEQ, there are two other monitors in the area that have recorded measurements above the NAAQS for lead. So even if the data from 480850009 were not considered, a nonattainment designation would still be appropriate. Collin County shows a violation of the 2008 Lead NAAQS. Therefore some area in this county and possibly additional areas in surrounding counties must be designated nonattainment. The absence of a violating monitor alone is not a sufficient reason to eliminate nearby counties as candidates for nonattainment status. The Act calls for areas which measure nonattainment and areas that contribute to nonattainment be designated nonattainment. Each area must be evaluated based on the weight of evidence of the eight factors and other relevant information.

Currently, there are no nearby emissions sources, other than Exide, that may be contributing to the violating monitors. According to TCEQ, the next largest point source of lead within 50 km of the Exide plant had a 2006 lead emissions of 0.03 tons per year (tpy), and the total lead emissions from all sources (other than Exide) within 50 km from the Exide plant was 0.0602 tpy.

Emissions and Emissions-Related Data

Evidence of lead emissions sources surrounding a violating monitor are an important factor for determining whether a nearby area is contributing to a monitored violation. For this factor, EPA evaluated county level emission data for lead and population data.

Emissions

Emissions data were derived from the 2005 National Emissions Inventory (NEI), version 2, which is the most up-to-date version of the national inventory available when these data were compiled for the designations process in 2009. See

http://www.epa.gov/ttnchie1/net/2005inventory.html. EPA recognizes that for certain counties, emissions may have changed since 2005. For example, certain large sources of emissions in or near this area may have installed emission controls or otherwise significantly reduced emissions since 2005. Some States provided updated information on emissions and emission controls in their comments to EPA. Texas provided updated emissions information based on the 2007 state emission inventory (EI). The 2007 EI shows only two stationary sources in Collin County reporting lead emissions: Exide and Encore Wire Limited, which is located in McKinney, Texas, approximately 12 miles from Exide. Based on the 2007 EI data, Exide accounts for approximately 98.6 percent of stationary source lead emissions in Collin County. Because of its significant distance from the Exide site and its small reported lead emission, Encore Wire Limited would not contribute to lead concentrations near Exide. The data is provided in Table 3.

There are approximately 20,000 airport facilities in the U.S. at which leaded aviation gasoline is consumed. To evaluate the potential impact of emissions at and near these facilities, EPA recommends that States use the draft 2008 NEI data for airport facilities in Collin County which use leaded aviation gasoline. Collin County airports are included in Table 4.

Table 3 shows total emissions of lead (given in tpy) for violating and potentially contributing counties in and around the Frisco area. There are no point sources emitting (or anticipated to contribute) greater than 0.1 ton per year of lead according to the 2007 state emissions inventory.

The county that is part of the Frisco nonattainment area for the 2008 Lead NAAQS is shown in **boldface**.

Table 3. Lead Emissions

County	Facility in State	Facility Name	Facility	Total Lead Emissions
	Recommended		Location	(tpy)
	Nonattainment			2007 State Emission
	Area?			Inventory
Collin		Exide Corporation	7471 S. 5 th	2.0
County,	Yes (a portion)		St., Frisco,	
Texas			TX	
Collin	No	Encore Wire	1410	0.03
County,		Corporation	Millwood,	
Texas			McKinny, TX	

Figure 2: Aerial view of Exide Technologies facility and surrounding area The monitors with site numbers (in red) are the currently existing monitors



Table 4. Airport facilities using leaded aviation gas in Collin County

				Distance
0.4			Pb	to NA
City	Facility Name	Type		area
	COLLIN COUNTY RGNL AT MC KINNEY	Туре	(tpy)	(km)
MC KINNEY CELINA	FOUR WINDS	AIRPORT	0.294125	21.5
WESTMINSTER	FOUR WINDS FLYING T RANCH	AIRPORT AIRPORT	0.058211 0.058211	24 42.2
	AIR PARK-DALLAS			42.2
		AIRPORT	0.056668	9.2
MCKINNEY	AERO COUNTRY	AIRPORT	0.025000	-
FARMERSVILLE		AIRPORT	0.017764	40.5
MC KINNEY	SQUARE AIR	AIRPORT	0.016636	25.75
PRINCETON	JSI	AIRPORT	0.016636	31.1
FARMERSVILLE	SHORT STOP	AIRPORT	0.014379	46.5
	TALLOWS FIELD	AIRPORT	0.013251	17.5
WESTMINSTER	BAYLIE	AIRPORT	0.013251	40.5
ALLEN		AIRPORT	0.009167	12.7
CELINA		AIRPORT	0.008643	17.8
DALLAS	LAVON NORTH	AIRPORT	0.003417	28.8
CELINA	BISHOP'S LANDING	AIRPORT	0.001667	25.7
ALLEN	EDS	HELIPORT	0.000233	13.1
ALLEN/LUCAS	GMF RANCH	HELIPORT	0.000233	24
FRISCO	EDS SUPERDROME	HELIPORT	0.000233	2.9
LUCAS	AAF	HELIPORT	0.000233	21.8
MC KINNEY	LMC	HELIPORT	0.000233	18.6
PLANO	EDS ADMINISTRATION NR 1	HELIPORT	0.000233	6
PLANO	MCP	HELIPORT	0.000233	12.5
PLANO	EDS	HELIPORT	0.000233	6.2
PLANO	EDS HANGAR	HELIPORT	0.000233	6.7
	CHILDRENS/PRESBYTERIAN HEALTH CTR		0 000000	0.0
PLANO		HELIPORT	0.000233	9.3
PRINCETON	AERO CRAFTER INC	HELIPORT	0.000233	27.8
PRINCETON		HELIPORT	0.000233	34.8
RICHARDSON	OWENS COUNTRY SAUSAGE	HELIPORT	0.000233	19.4
WYLIE		HELIPORT	0.000233	28.9
WYLIE	LADUE RANCH	HELIPORT	0.000233	32.1
WYLIE	WALDEN RANCH	HELIPORT	0.000233	31.7

Population Data

Table 5 shows the 2008 population for each county in the area being evaluated, as well as the population density for each county in that area. These data help assess the extent to which the concentration of human activities in the area and concentration of population-oriented commercial development may indicate emissions-based activity contributing to elevated ambient lead levels. This may include ambient lead contributions from activities that would disturb lead

that has been deposited on the ground or on other surfaces. Re-entrainment of historically deposited lead is not reflected in the emissions inventory.

County	State Recommended Nonattainment?	2008 Population	2008 Population Density (pop/sq mi)	Population Change 2000-2008	Population % Change 2000-2008
Collin, Texas	Yes	762,010	860	261,812	52

Source of data: U.S. Census Bureau estimates for 2008 (<u>http://www.census.gov/popest/datasets.html</u>) and estimation of the area of U.S. Counties]

Growth Rates and Patterns

Collin County shows a population change of fifty two percent between 2000 and 2008, which has been considered when determining the nonattainment status of the County. However, since there are no additional sources of lead emissions in Collin County to be considered, the population growth in the area should not be a factor in determining the boundary for the area. EPA has considered the population growth rate for this area and does not believe that it affects the boundary recommendation.

Emissions Controls

Under this factor, the existing level of control of emission sources is taken into consideration. The emissions data used by EPA in this technical analysis and provided in Table 2 represent emissions levels taking into account any control strategies implemented in Frisco before 2005 on stationary sources. As noted above, Exide applied for a received a revised permit that lowered the allowed emissions rates for the facility.. The area was designated to attainment of the 1978 lead NAAQS and has been under the control of a 10-year maintenance plan since 1999. TCEQ submitted a second 10 year maintenance plan to EPA on September 15, 2009 in order to demonstrate a continued attainment of the 1978 standard, until a SIP revision for the nonattainment area is approved by EPA.

Meteorology (weather/transport patterns)

For this factor, EPA considered data from National Weather Service instruments and other meteorological monitoring sites in the area. Wind direction and wind speed data for 2006-2009 are in Figure 3 below. These data may provide evidence of the potential for lead emissions sources located upwind of a violating monitor to contribute to ambient lead levels at the violation location. For each county, EPA reviewed the prevailing wind direction and wind speed on days/months with the highest observed ambient lead levels. A three-dimensional bar chart shows the wind frequencies in eight directions, for the four seasons, based on thirty two years of

historical data¹ for Frisco, Texas. The chart of frequencies reflects the directions from which the winds come. The area recommended by Texas reflects this pattern because the area extends to the north further from the Exide facility than to the south reflecting the prevailing south wind.



Figure 3: Historic wind direction frequency in each of the four seasons in Collin County, Texas

As shown in Figure 3, the prevailing surface winds predominantly were from the SSW.

Geography/topography (mountain ranges or other air basin boundaries)

The geography/topography analysis evaluates the physical features of the land that might have an effect on the air shed and, therefore, on the distribution of lead over the Frisco area.

¹ This data was taken from 1960-1992 Solar and Meteorological Surface Observation Network information issued jointly by the U.S. Department of Commerce: National Climatic Data Center and the U.S. Department of Energy: National Renewable Energy Laboratory.

The Frisco area does not have any geographical or topographical barriers significantly limiting air-pollution transport within its air shed. Therefore, this factor did not play a significant role in determining the nonattainment boundary.

Jurisdictional boundaries

Existing jurisdictional boundaries may be helpful in articulating a boundary for purposes of nonattainment designations, and for purposes of carrying out the governmental responsibilities of planning for attainment of the lead NAAQS and implementing control measures. These existing boundaries may include an existing nonattainment or maintenance area boundary, a county or township boundary, a metropolitan area boundary, an air management district, or an urban planning boundary established for coordinating business development or transportation activities.

The nonattainment area is a portion of Collin County. Surrounding counties have no lead emitting sources, and thus do not contribute to the nonattainment area in Collin County. TCEQ modeling shows that all predicted NAAQS violations fall within Collin County.

Other Relevant Information

In 2009, the TCEQ conducted air dispersion modeling of all the lead emission sources at the site using the current modeling parameters and associated permitted allowable emissions rates (lb/hr). Modeling combines two of the factors discussed above, meteorology and emissions data, to estimate the area that would be above the standard. The 2009 modeling showed that the predicted maximum ground level concentration (GLCmax) is $1.42 \mu g/m3$ for a rolling three-month average. The location of the GLCmax is the same as the location of monitor 480850009 on the north property line of the Exide Technologies site. Predicted concentrations exceeding the NAAQS extended approximately 1.3 kilometers (km) to the north, 0.8 km to the south, 0.8 km to the east of the site property line.

In October 2010, TCEQ performed modeling using the new permitted allowable emission rates (lb/hr) that were revised as part of the October 6, 2010 permit alteration.² The revised modeling conducted by TCEQ was completed using two receptor grids near the Exide facility – one grid using 50-meter spacing and one grid using 100-meter spacing. The new model runs showed that the predicted maximum ground level concentration (GLCmax) is $0.837 \mu g/m3$ for a rolling three-month average. The location of the GLCmax is the same as the location of monitor 480850009 on the north property line of the Exide Technologies site. Predicted concentrations exceeding the NAAQS extended approximately 0.8 kilometers (km) to the north, 0.5 km to the south, 0.5 km to the west, and 0.2 km to the east of the site property line.

EPA completed a review of the revised October 2010 modeling performed by TCEQ and confirmed that the modeled emission rates matched the revised permit allowables contained in

 $^{^2}$. Since Exide could operate at their short-term rates for an extended time and the Pb NAAQS is less than an annual standard, TCEQ and EPA both modeled short-term (lb/hr) emission limits in this modeling. EPA notes that recent actual annual emissions have been below the revised permitted annual allowable emission limits.

Exide's permit dated October 6, 2010. For all sources, except the vehicle traffic fugitive emissions (EPNs 41, 42, and 43), the hourly emissions permit limit was included in the modeling conducted by TCEQ. The modeled emission rates included for the vehicle traffic emission points were based on the annual emissions permit limit converted to a short term emission rate assuming continuous operation (i.e. 8,760 hours per year). For fugitive sources that are listed in a "group" with a combined permit allowable within the current permit (i.e., 10 and 35; 41, 42, and 43) the total permitted emissions limit was modeled from each of the emission points within the grouped listing. Therefore, the modeling conducted by TCEQ accounted for the total permitted emissions for the group coming from each modeled EPN at all times. The modeled emission rates included by TCEQ in the October 2010 modeling appear to be appropriate, since these emission rates are consistent with the permit allowables for the modeled emission sources.

In addition to reviewing the revised modeled emission rates, EPA also reran the model runs using both the 50- and 100-m receptor grids to confirm the model outputs provided by TCEQ. EPA post processed the model outputs using the LeadPost post processer to calculate the rolling three-month average concentrations for each receptor included in the modeling. The results from the EPA's post processing confirmed the modeling results provided by TCEQ.

All predicted concentrations greater than the NAAQS are located within Collin County. Figure 5 shows the lead concentrations in the recommended non attainment area.



Figure 5: Recommended nonattainment area with modeling results.

During discussions with Exide in October 2010 regarding the revised modeling conducted by TCEQ, Exide raised questions regarding the approach used to model the total fugitive "group" permit allowables from each individual emission point (EPNs 10 and 35, and 41, 42, and 43). Exide's consultant also suggested that the modeling was conservative because Texas does not usually include haul road (lead re-entrained from traffic on Exide's facility) emissions in minor source permits.

EPA has reviewed the issue raised about the Furnace Fugitive Emissions (emission points 10 and 35). Exide utilized updated AP-42 emission factors to quantify these emission points and lower the permitted emission limit from 0.27 lb/hr to 0.08 lb/hr. The AP-42 emission factor has an E rating, which is the lowest confidence level rating of AP-42 factors. The emission factor also has a range of variability from 0.2 to 0.6 lb/ton of metal processed. Exide chose 0.4 lb/ton as the basis for the emission calculation with a 98% hood capture efficiency and a 10.5 ton per hour maximum metal throughput. This calculates to a maximum emission limit of 0.08 lb/hr. TCEQ modeled this new 0.08 lb/hr allowable for each of the release points in the modeling. Given the range of the emission calculation, the lack of testing or site specific data to support Exide's selection, the fact that the new emission limit is approximately 30% of the previous emission limit and the fact that Exide did not quantify how much emissions would be coming out of each emission point, TCEQ's modeling of these sources seems reasonable.

EPA also reviewed the three area sources (emission points 41, 42, 43). The permitted annual emission rate for these 3 sources combined is 0.17 tons of Pb. This rate was assumed to be constant for daily and hourly emissions for modeling purposes. Work day variations could result in larger daily or hourly emissions so assigning the rate to each is conservative but understandable. EPA does not agree with Exide's consultant that the haul road/traffic emissions should not have been included in the modeling. The haul road emissions have permit limits and, under federal permitting guidance for PSD, these sources should be included in modeling and permitting. Moreover, EPA is required to designate areas where ambient air quality does not meet the NAAQS, regardless of whether such ambient concentrations are due to re-entrainment of previously-emitted Pb, or to more recent emissions from a nearby stationary source.

Exide indicated to EPA that it considers TCEQ's modeling to be overly conservative because including emissions from EPNs 10 and 35, and 41, 42, and 43 amounts to "double counting" certain lead emissions. To address the question of whether these emissions (which amount to less than 10% of the facility's total emissions) would drastically change the potential boundary (if any one EPN were under-estimated or over-estimated), EPA completed additional model sensitivity runs to examine how the boundary and receptors with predicted concentrations greater than the NAAQS would be impacted if the total emissions were modeled through either EPN 10 or 35, and one of the other individual emission sources (EPNs 41, 42, or 43). Three additional modeling runs were conducted as part of this analysis using the 50-meter grid spacing:

1. MIN_S: This model run included all sources except EPNs 10, 41, and 43. The total permit allowables from the Furnace Fugitives were modeled from EPN 35. The total permit allowables from the Vehicle Traffic were modeled from EPN 42.

- 2. MIN_W: This model run included all sources except EPNs 35, 42, and 43. The total permit allowables from the Furnace Fugitives were modeled from EPN 10. The total permit allowables from the Vehicle Traffic were modeled from EPN 41.
- 3. MIN_E: This model run included all sources except EPNs 35, 41, and 42. The total permit allowables from the Furnace Fugitives were modeled from EPN 10. The total permit allowables from the Vehicle Traffic were modeled from EPN 43.

EPA post processed the results from these model runs and created plots showing the predicted three-month average concentrations. Figure 6 shows the results of EPA's modeling with a 50 m receptor grid that confirms the modeling that TCEQ performed. Figures 7, 8, and 9 show the lead concentrations for these three model runs along with the boundary of the nonattainment area proposed by TCEQ.

Figure 6: Recommended nonattainment area from TCEQ based on EPA's modeling (50 m).



Figure 7: Recommended nonattainment area with modeling results from MIN_S model run.



Figure 8: Recommended nonattainment area with modeling results from MIN_W model run.



Figure 9: Recommended nonattainment area with modeling results from MIN_E model run.



As shown in these figures, the difference in the boundary for predicted concentrations greater than the NAAQS when the total emissions were modeled through just one of the individual fugitive sources was at most 50 to 100 meters. These alternate runs confirm that even if TCEQ refined their modeling approach to address Exide's concerns of potential "double-counting" of emission rates, the new inputs would result only in minor differences in the boundary of the area having predicted lead concentrations greater than the NAAQS. To be clear, EPA does not consider TCEQ's analysis to be overly conservative and does not agree with Exide's comments. EPA considers the modeling approach utilized by TCEQ to determine the recommended nonattainment area to be reasonable and appropriate.

Conclusion

After considering the factors described above, EPA has determined that it is appropriate to designate the portion of Collin County recommended by Texas listed in Table 1 as a nonattainment area for the 2008 Lead NAAQS. The nonattainment area encompasses the area immediately surrounding the Exide Technologies battery recycling plant in Frisco, bounded to the north by latitude 33.153, to the east by longitude -96.822, to the south by latitude 33.131, and to the west by longitude -96.837. This portion of the county encompasses the area projected by the modeling to be above the standard. In addition, air quality monitors in the nonattainment area show violations of the 2008 Lead NAAQS, based on 2006-2008 and 2007-2009 air quality data.

Based on its consideration of all the relevant, available information, as described above, EPA believes that the boundaries described herein encompass the entire area that does not meet the 2008 Pb NAAQS.