

Texas City/La Marque Community Air Monitoring Network

**2009 Air Quality Status and Trends
Prepared August 2010**

The data used in this report was prepared by URS Corporation, an independent contractor under contract by the state of Texas and whose contract is to collect the Texas City and La Marque air samples from the community air monitors, send the sealed canisters to the EPA in Washington D.C. and report the results. This report is a summary of that data. The comments were added for the purpose of providing the public a better understanding about the quality of air in the community and the protection levels as detailed by the report and are not a part of the URS report. The comments in this report should be attributed to Jack Cross not the CAC Prepared by Jack Cross and assisted by Jose Boix who are members of the Community Advisory Council

Note: 2010 data included on some of the charts

What is Benzene used for

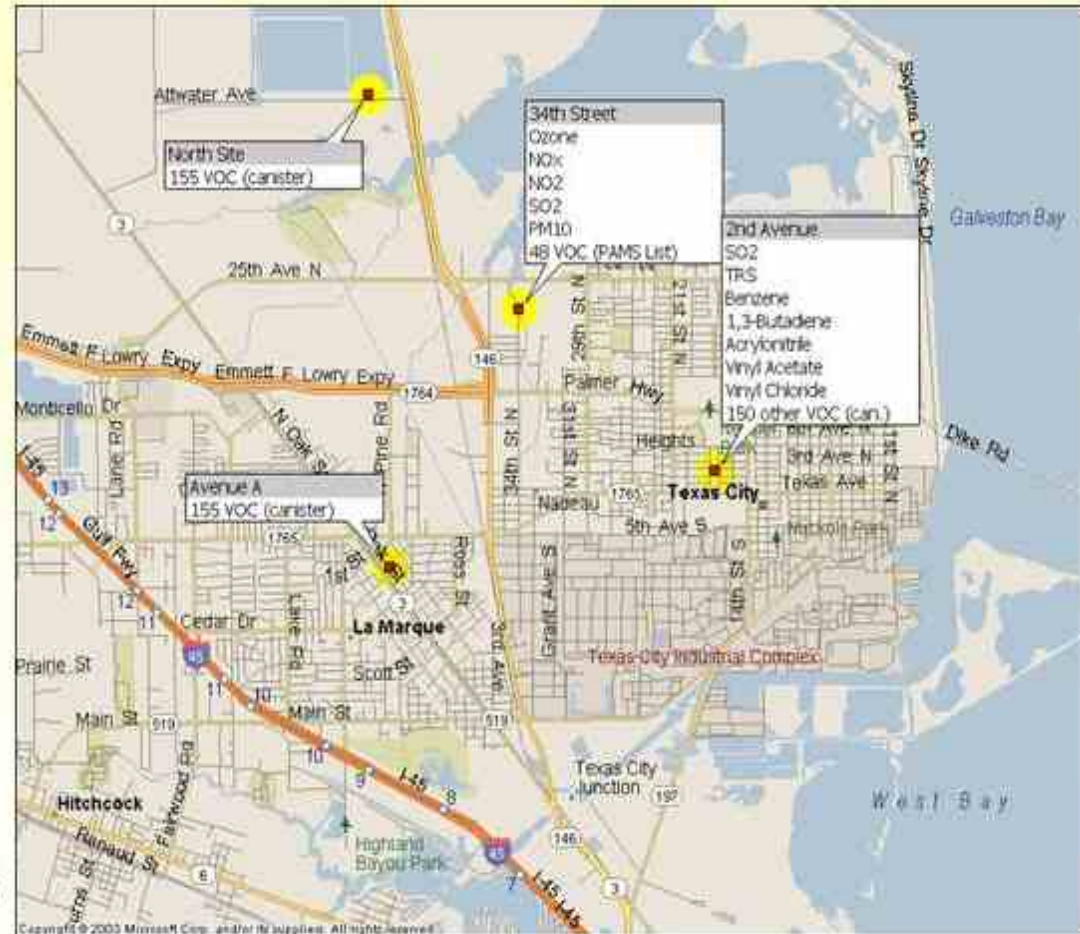
Benzene is a carcinogen widely used industrial chemical. It is used in the manufacture of medicinal chemicals, shoes, dyes, detergents, explosives, linoleum, oil cloth, and artificial leather. Benzene is a solvent for waxes, fats, resins, paints, plastics, and fast drying inks.

Tobacco smoke contains benzene. Benzene emissions occur from agricultural burning, forest management burning, composting, wildfires and volcanoes.

Benzene is a naturally occurring component of crude oil, gasoline and cigarette smoke.

Network Description and History: Current Monitoring Parameters and Locations

- **Air toxics**
 - Continuous hourly measurements at 34th Street and 2nd Avenue
 - 24-hour periodic sampling at Avenue A, 2nd Avenue, and the North Site
- **Ozone and ozone precursors (34th Street)**
 - O₃
 - NO_x
 - Continuous speciated VOC (TCEQ PAMS list)
- **Other criteria air pollutants**
 - SO₂ at 34th Street and 2nd Avenue
 - NO₂ and PM₁₀ at 34th Street
- **Total Reduced Sulfur (TRS) at 2nd Avenue**
 - Surrogate for H₂S
- **Weather**
 - Wind speed and direction at 34th street and 2nd Avenue
 - Temperature, humidity, rainfall, sunlight, and barometric pressure at 34th Street

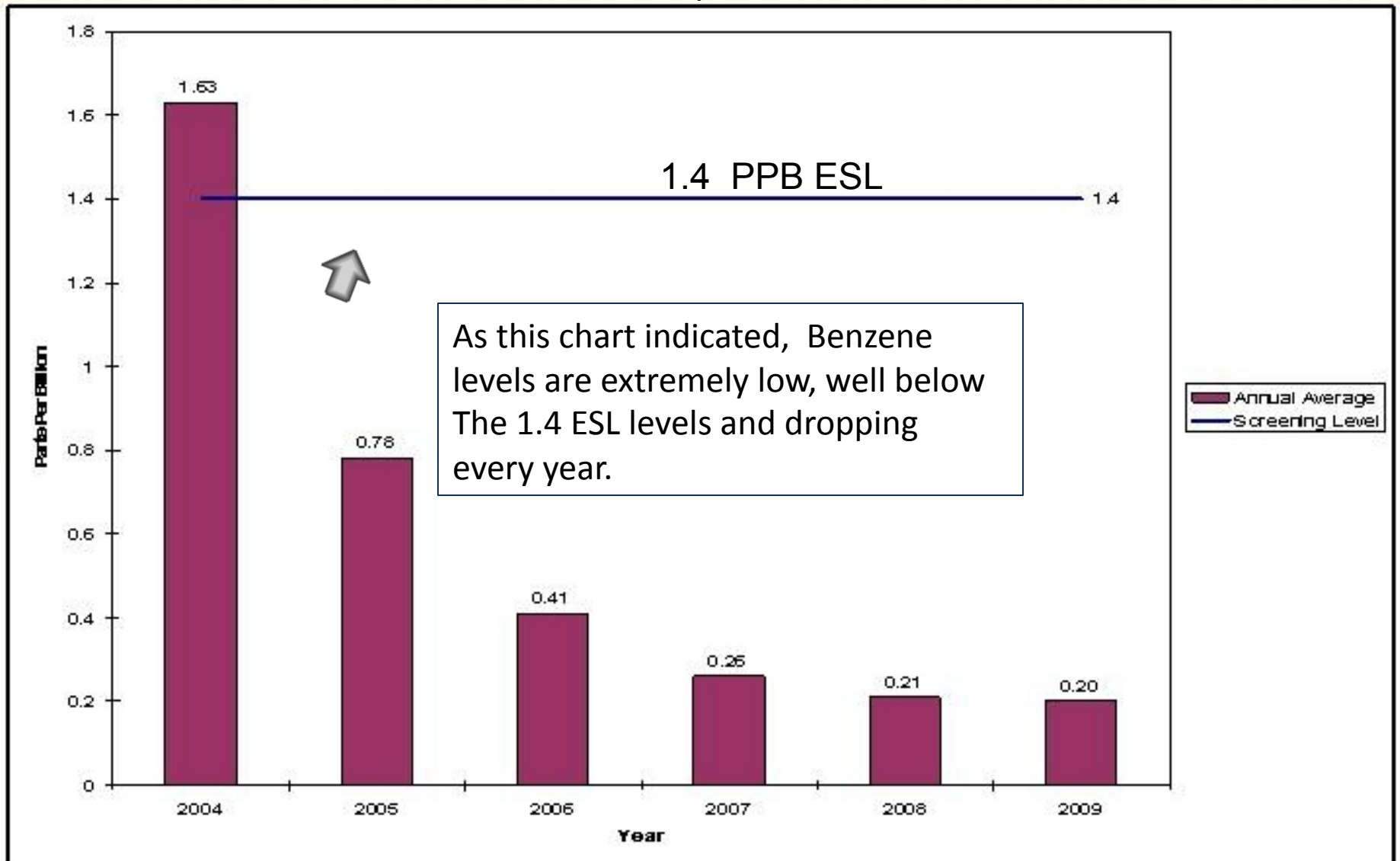


2nd Avenue Air Toxics

- Benzene
 - Two independent measurements
 - PLOT column – better chromatography (sharper peak shapes), better agreement with canister measurements
 - Wax column – higher concentrations (more conservative); possibly biased due to broad peaks, peak tailing
- Acrylonitrile
- Vinyl Acetate
- Vinyl Chloride
- 1,3-Butadiene

These air pollutants are what is being measured at the Texas City 2nd Ave monitoring station which is the closest to the BP plant

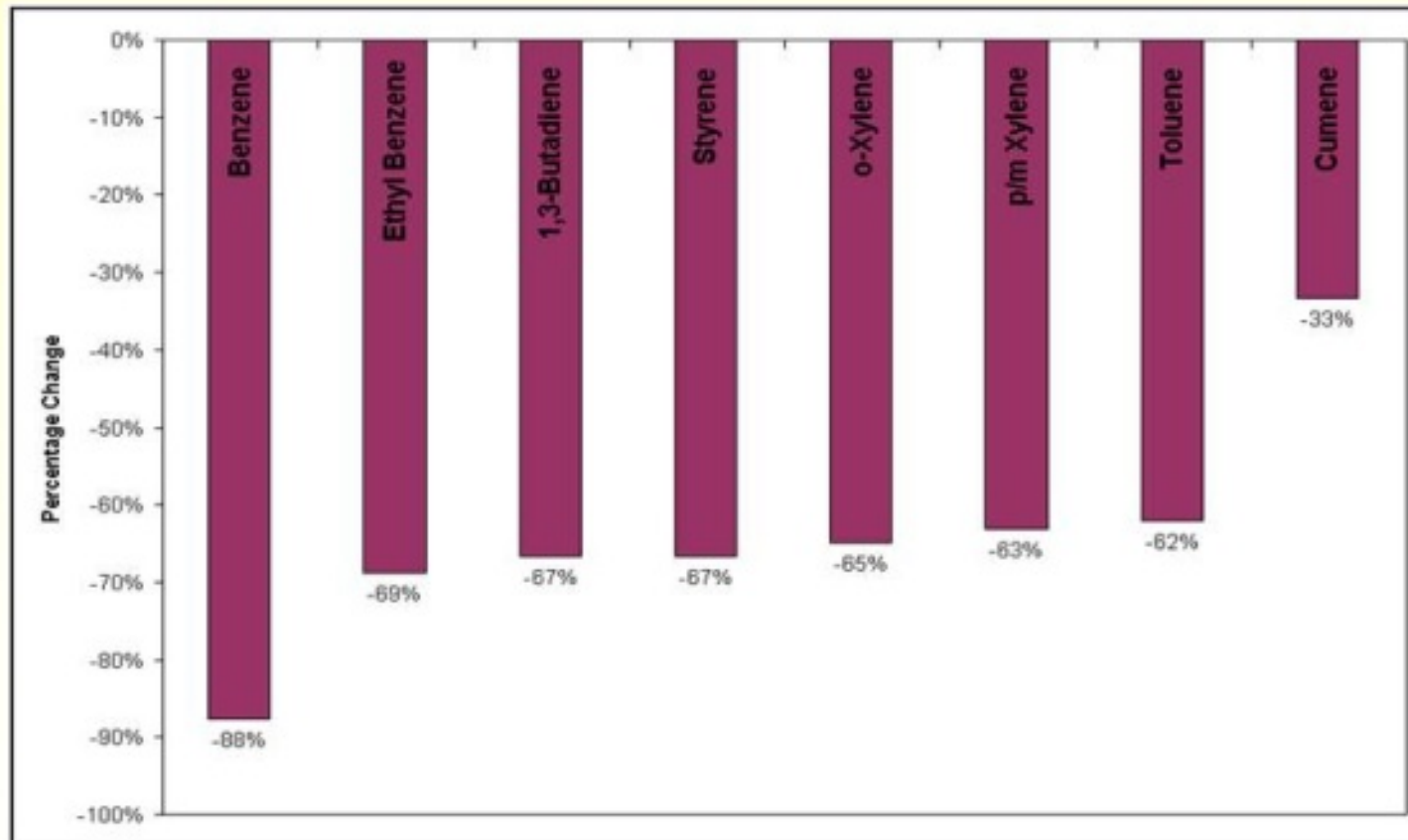
Benzene Trends 34th Street in Texas City



Note: ESLs indicate the indicates conservative protection values used By the Texas Commission Environmental Quality TCEQ.

Texas City 34th st Air Monitoring Station

Change in Annual Average Concentration 2004 to 2009 (Decreases Range From 33% - 88%)



88 percent decrease in Benzene - the combined reading for all seven Texas City Industrial Plants – a remarkable accomplishment

2nd Avenue Hourly Air Toxics Measurements – Number of Values in Various Ranges for 2009

	Number of Valid Hourly Averages				
	Acrylonitrile	Benzene [±]	1,3-Butadiene	Vinyl Acetate	Vinyl Chloride
No. of Valid Hrs	7069	7077	7075	7069	7075
TCEQ ESL Short term PPB	20	180	1700	40	26,000
Highest Value	9.2	22.4	5.6	9.9	10.2

short term levels for Benzene and the other toxics at 2nd Ave monitoring station. The highest Benzene value at the 2nd ave station which is close to the plants was 22.5 well below the ESL levels taken during 7,077 hours of sampling. In addition to benzene, all the other big five chemicals tested are well below the ESL levels.

Earlier this year the USB Corporation told the Community Advisory Council that the citizens of Texas City have every reason to be proud of the accomplishment of industry in bringing the emission levels down way below the ESL levels and the continued downward trend

April and May 2010

Combined reading of all seven local industries

Average benzene levels continued long-term downward trend

ESL = 1.4 PPB

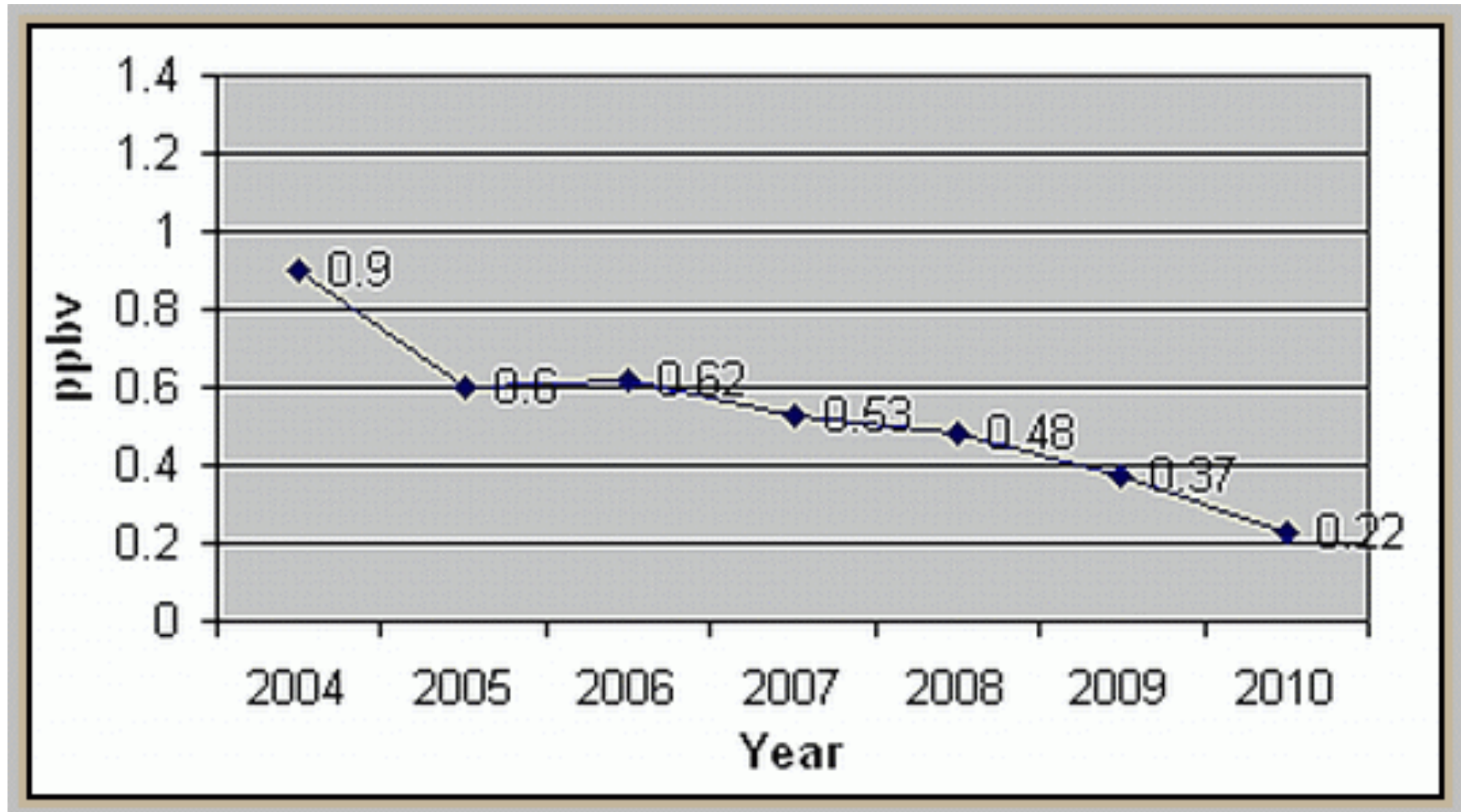
North Site – 0.20 ppb

Avenue A – 0.19 ppb

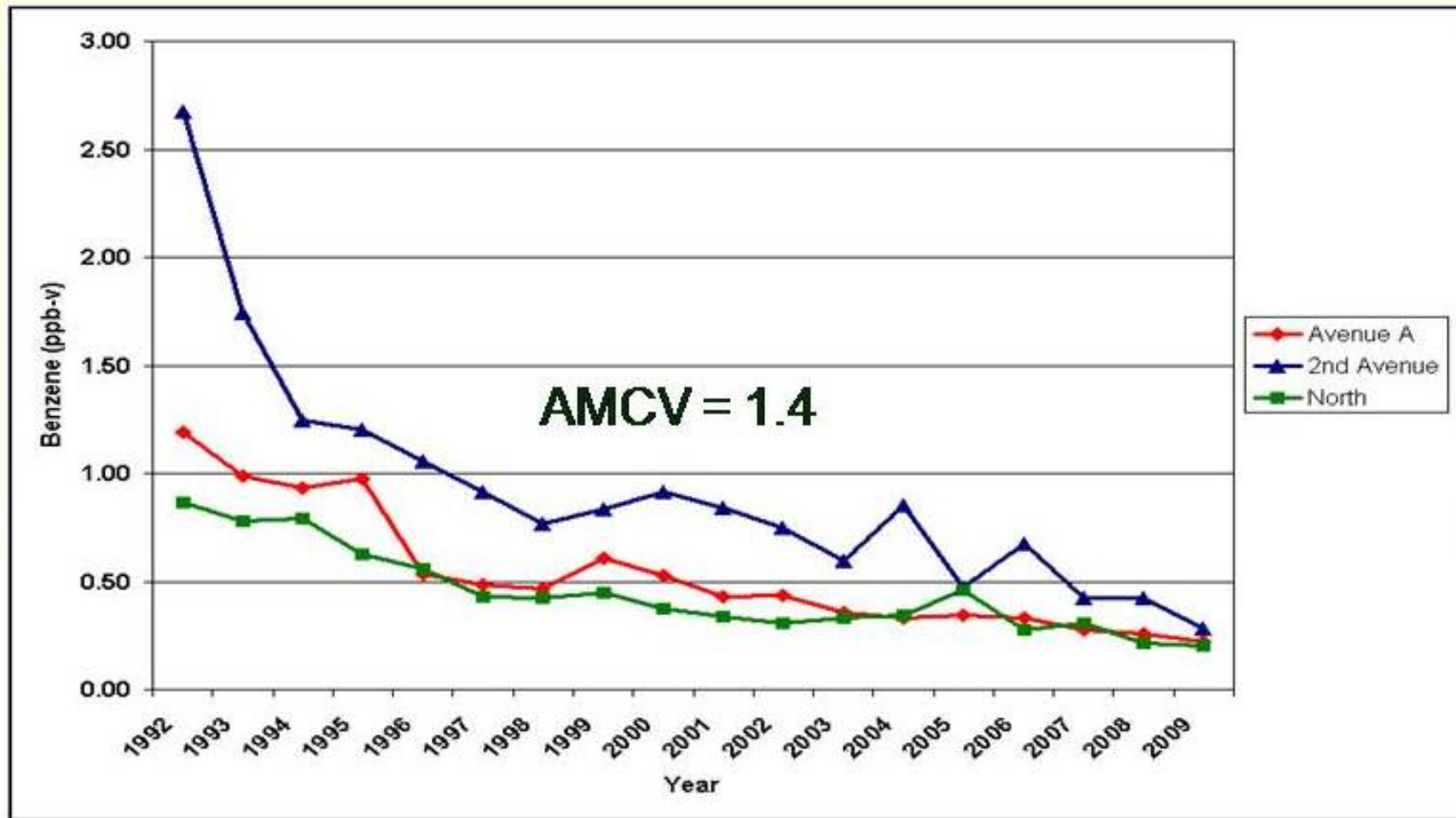
2nd Avenue – 0.15 ppb

BENZENE

Texas City 2nd Street Monitoring Station



Long-Term Benzene Trend from Canisters (71% Decrease in Average Level 1993-2009)



Pollutants other than benzene being monitored at the community monitoring stations in Texas City and La Marque are also well below the ESL levels and continue on a downward trend.

2nd Avenue Hourly Air Toxics Measurements Annual Averages for 2004-2009

Year	Long term	Annual Averages (ppb-v)			AVAC	
	Acrylonitrile	Benzene (PLOT)	Benzene (Wax)	1,3-Butadiene	Vinyl Acetate	Vinyl Chloride
Long-term PPB	2.0	1.4	1.4	9.1	4.0	0.45
2004	0.11	0.90	1.09	0.22	1.25	0.53
2005	0.04	0.60	0.59	0.13	0.34	0.41
2006	0.03	0.62	0.66	0.06	0.16	0.32
2007	0.01	0.53	0.60	0.04	0.08	0.28
2008	0.02	0.48	0.63	0.05	0.02	0.22
2009	0.02	0.37	0.47	0.04	0.42	0.10

April/May 2010 0.22

Long Term Exposure data – The two Benzene reading are a result of two different measuring methods.

2nd Avenue Air Toxics Summary - 2009

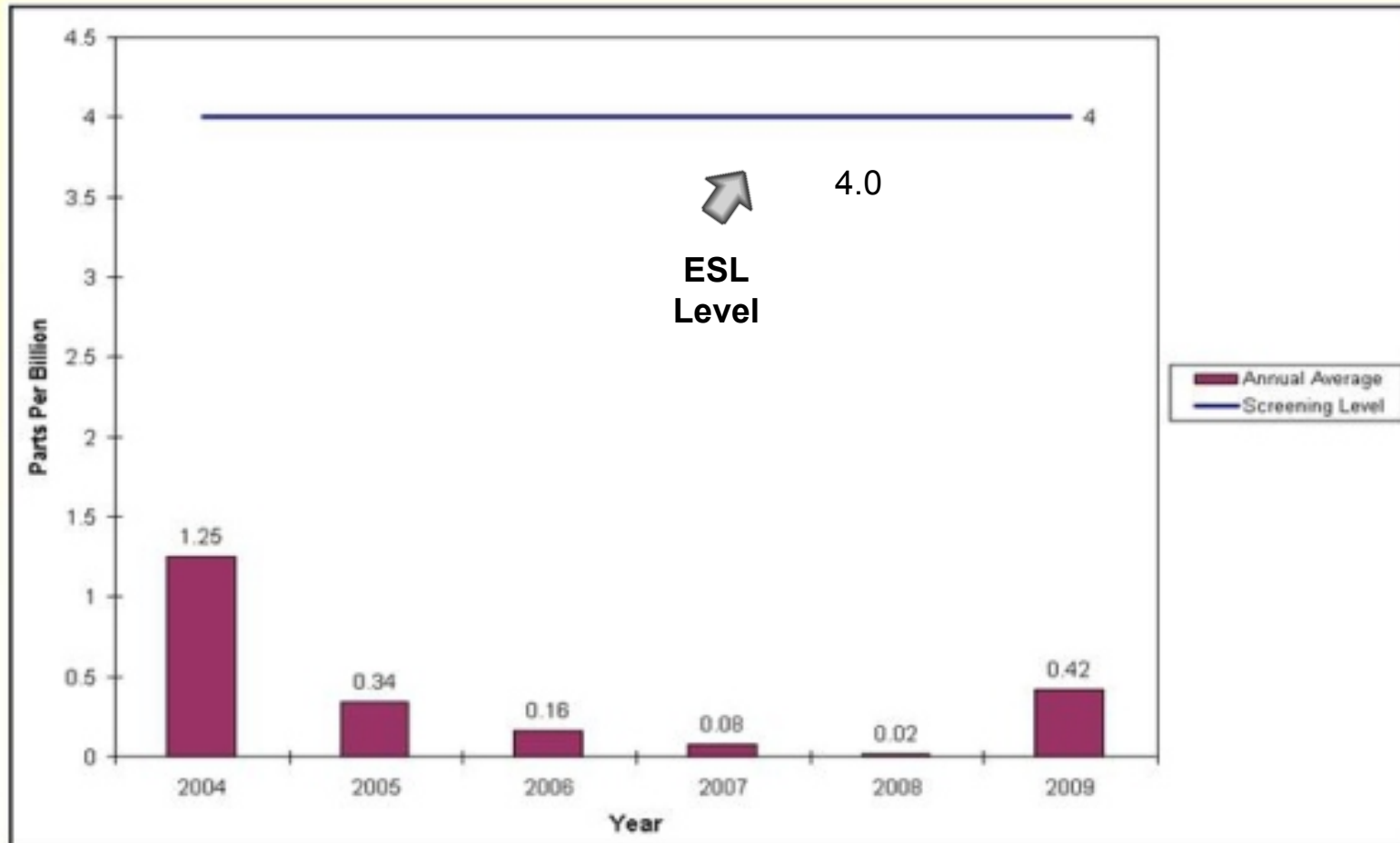
Chemical	Acute Screening Level Exceeded?	Chronic Screening Level Exceeded?	Downward Trend? (2004-2009)
Acrylonitrile	No	No	Yes
Benzene	No	No	Yes
1,3-Butadiene	No	No	Yes
Vinyl Acetate	No	No	Yes
Vinyl Chloride	No	No	Yes

1 – hour and annual averages below the respective screening levels by a **LARGE MARGIN**

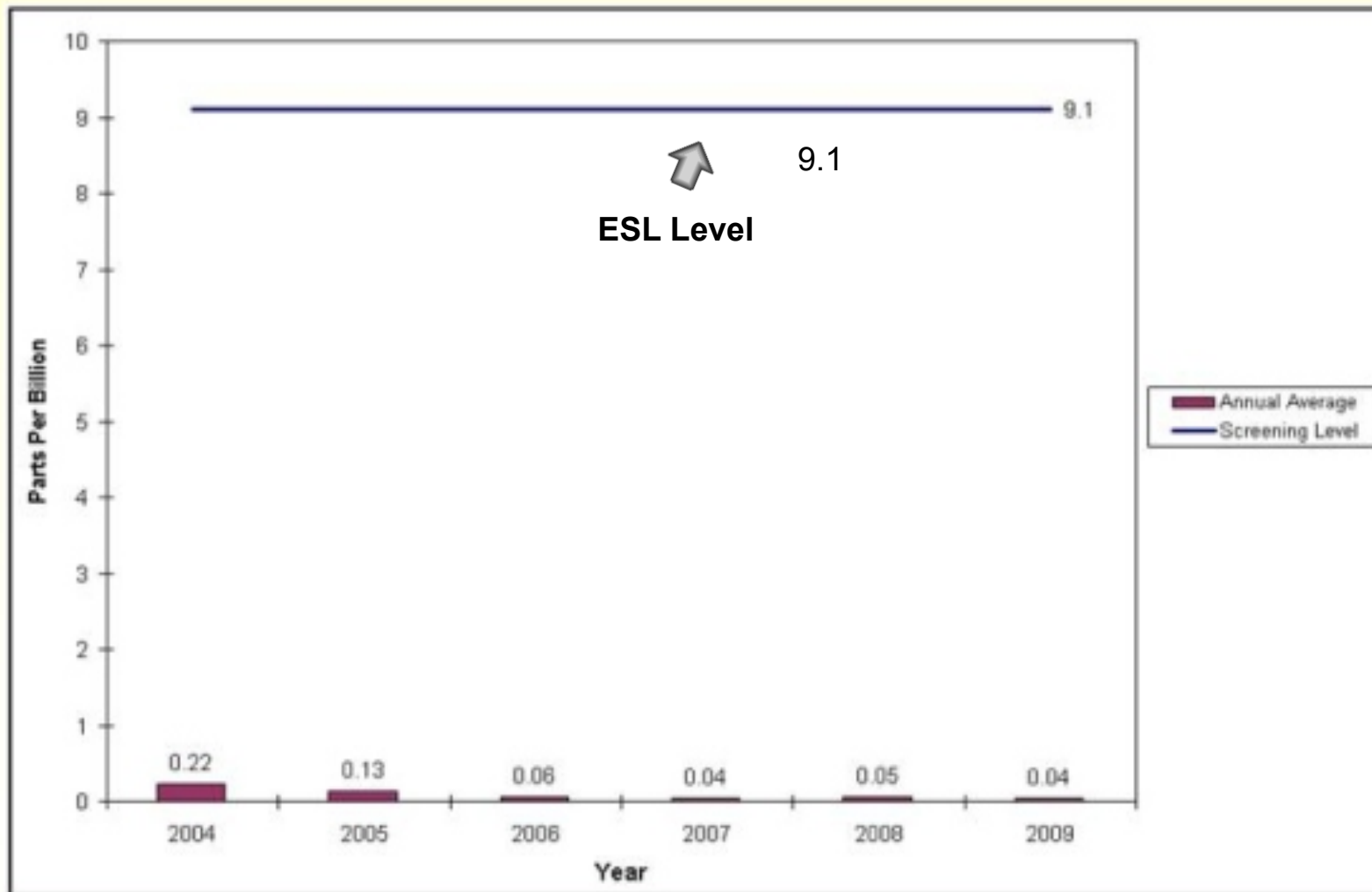
annual concentrations decreased for all pollutants

Prepared by URS Corporation . For TCEQ

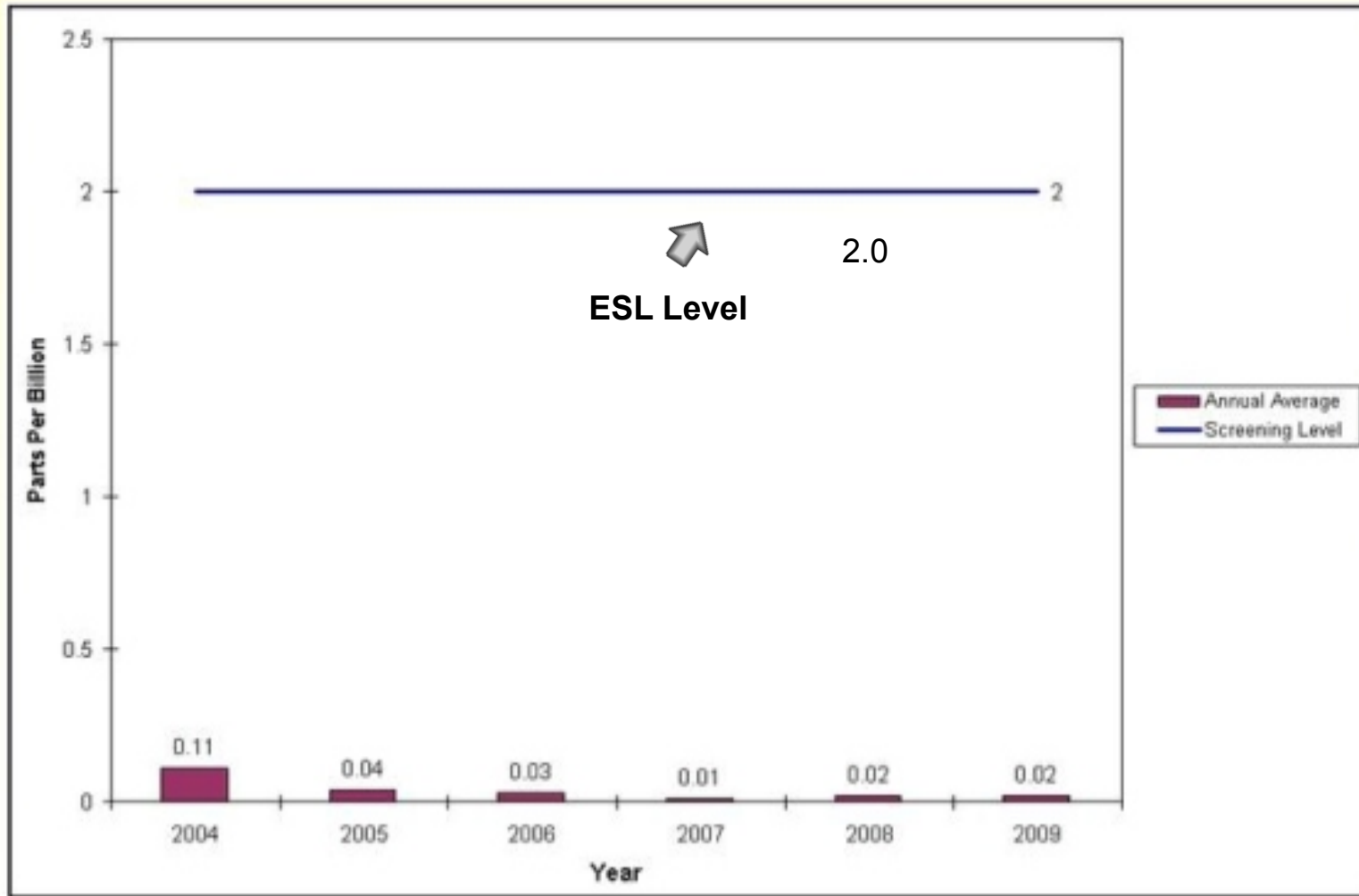
Vinyl Acetate Trend – 2nd Avenue



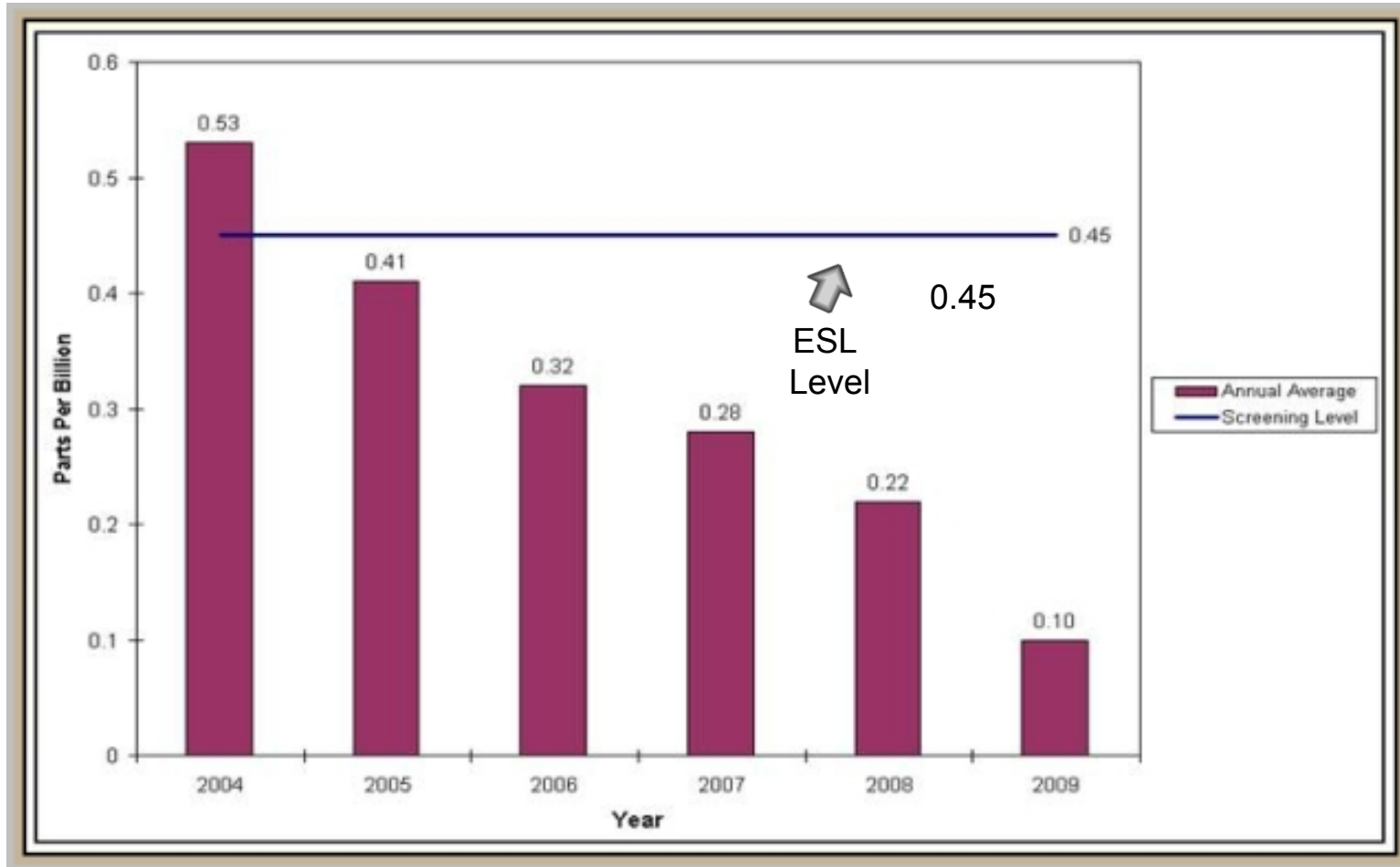
1,3-Butadiene Trend – 2nd Avenue



Acrylonitrile Trend – 2nd Avenue



Vinyl Chloride Texas City 2nd Ave Monitoring Station



PUTTING THE BENZENE HEALTH ISSUE IN PERSPECTIVE

OSHA sets workplace limits for benzene at 1 part per million (PPM) for an eight hour shift. The TCEQ ESLs for the community monitors are 1.4 (PPB) The reason for the EPA lower benchmark is that people in the workplace are considered more healthy, whereas in the community there are children, people with asthma and the elderly.

The highest reading at the community monitoring stations was 0.43 Parts per billion and a average of 0.22 Part per billion (PPB) 1 PPB is 1,000 times less than 1 PPM. 0.22 PPB benzene would be equal to about 1/5th of a drop in an Olympic size swimming pool.

Why then, some may say was BP cited for a violation. This was a regulation violation between BP and the EPA and does not necessarily mean that benzene levels at the monitoring stations were elevated. The purpose of regulations are to protect the public and does not necessarily mean that anyone has been injured.

For example, you can be ticketed for speeding on the highway but you can't be charged with injuring someone even if you are a repeat violator.

The Community Advisory Council Speaks Out

The Community Advisory Council are citizens who meet bi-monthly with industrial plant leadership to hear air quality and safety reports. Each meeting has a program speaker. The CAC this year has heard reports from the Galveston County Environmental District, the EPA, Texas Commission on Environmental Quality (TCEQ) and URS Corporation.

At the August 26, 2010 meeting CAC community members approved releasing to the public the same data and reports the community members see.

Community members of the CAC has seen no evidence that Benzene or any of the other identified pollutants were at elevated levels in year 2009 or 2010. To the contrary, the data we have seen shows just the opposite. Based on these facts presented to us, It is the CAC community members conviction that claims of people in this community being exposed to elevated levels of benzene in the community are unprincipled and void of any supportive facts.

The numbers of claimants and the sensationalism of the charges travel nationwide and render Texas City and La Marque as polluted and un-healthy cities.

These lawsuits and the news stories it generates, undermines everything those who are promoting our communities as a good and environmental safe city to live and do business and it discourages business and people from locating here.

EXPLANATION ON HOW THE PUBLIC READS THE GRAPHS TO DETERMINE THE DEGREE OF HEALTH PROTECTION

(what are ESLs)

The terminology used by the Texas Commission on Emission Quality (TCEQ) is confusing to the public. What citizens may call a standard or bench mark, the TCEQ calls an Effects Screening Level (ESL) This are the lines one sees near the top of the graph charts that you strive to keep the readings below that level. The TCEQ defines ESLs as chemical-specific air concentrations set to protect human health and welfare. Exposure to an air concentration at or below the ESL is not likely to cause an adverse health effect in the general public, including sensitive subgroups such as children, the elderly, pregnant women, and people with preexisting health conditions.

Recently the TCEQ adopted a new terminology for air monitoring called AMCVs. This new acronym has the same benchmarks as ECLs. The change was made because of the significant differences from the air permitting program and ambient air monitoring.

Regardless of which terminology is used, area residents should feel at ease based on the data that shows large margins of protection as defined by the TCEQ.

Source: Texas Commission on Environmental Quality

A



After reviewing all of the data release by the governmental bodies charged with retrieving and processing the data, the results show that these seven local industries have done a significant job of not only reducing toxic air emissions, but have done so in a way that the measurements are well below the State TCEQ screening levels.

For this, these industries deserve a thank you from the citizens of this community