



Dialogues in Democracy: Life, Liberty and the Pursuit of Happiness

A Partnership between the Houston Public Library, HoustonPBS/Channel 8, and the Houston Area League of Women Voters

Introduction

Given its geographic size, its population and its primary industries, the Houston area has several issues regarding the quality of its air. Houston continues to violate the ozone standard established by the Clean Air Act, prompting much debate about the local and State control measures which affect how quickly the area comes into compliance. Additionally, the local levels of Fine Particulate Matter, an airborne mixture of solid particles and liquid droplets that come from a variety of sources such as power plants, factories, and automobiles have been rising in recent years.

It is the issue of the levels of **Air Toxics**, however, that has received the most attention over the last year. Air Toxics are any air pollutant that may reasonably be anticipated to cause serious or irreversible chronic or acute health effects in humans and for which a National Ambient Air Quality standard (NAAQS) does not exist (i.e. excluding ozone, carbon monoxide, sulfur dioxide, nitrogen oxide, PM-10). The three air toxics that are of greatest concern in Houston are benzene, 1,3-butadiene and diesel particulate matter. Benzene is an important industrial chemical and also present in gasoline. It is known to cause leukemia as well as having other non-carcinogenic health effects. Butadiene is an important industrial chemical used in producing synthetic rubber and is thought to cause cancer and have other non-carcinogenic effects. Diesel particulate matter (DPM) is a complicated mixture of compounds produced in diesel internal combustion engines.

How do we respond?

Emissions from mobile sources (cars, trucks, etc.) clearly impact the levels of toxics in our air. Government and businesses generally agree that individuals should take appropriate steps to limit the emissions from their vehicles, such as checking tire air pressure, driving at a slow, steady speed, using clean fuels, etc.

Some believe, however, that what sets the Houston area apart in the area of air toxics is the number and concentration of industrial plants, power plants and refineries.

Many residents in communities that are most affected by air toxics argue for reduced emissions from these plants, stricter enforcement of existing regulations, and stiffer penalties for violations. Some local businesses and the City of Houston agree on the need to reduce the levels of air toxics in the area, believing that with cleaner air, Houston should be able to attract more residents and businesses to the area. Other residents and some companies believe that while we need to pay attention to the level of toxics in the air, emissions of these toxics are a by-product of companies that employ thousands of local residents, pay millions of dollars in local property taxes, and support community causes. They are concerned that stricter regulations and stiffer penalties would hurt business and reduce job opportunities in the area. The difficulty lies in finding a balance between the needs of these businesses, which employ thousands of area residents, and the City's responsibility for protecting the health of its citizens¹.

What approaches should we take to reduce the levels of air toxics in Houston's air?

Approach 1: Work with companies to reduce their emissions on a voluntary basis.

This approach allows companies and government to work together to find agreement on acceptable levels of emissions. Some companies like it because it allows them to reduce emissions while having some say in the levels of and timelines for the reductions. The Greater Houston Partnership has gone on record supporting this approach. Some individuals prefer this approach because they feel it limits the amount of government and thus protects jobs. There has been some success with this approach, as exemplified by the voluntary (but legally enforceable) agreement between the City of Houston and Texas Petrochemical (TPC). This agreement required TPC to reduce 1,3-butadiene by 87% over a three-year period. To date, levels from the plant have dropped around 54%.

The primary difficulty with this approach is that it is voluntary, and not many companies choose to participate. For example, The City of Houston developed a Voluntary Benzene Reduction Plan, which targeted the seven largest emitters based on quantity of emissions and proximity to neighborhoods. To date no companies have expressed interest, and the City is waiting on a reply from the Greater Houston Partnership.

Approach 2: Encourage the State of Texas/Texas Commission on Environmental Quality (TCEQ) to adopt and enforce ambient air standards

¹ The City Charter charges the City of Houston with enacting and enforcing all ordinances "...necessary to protect life, health and property, to summarily abate and remove nuisances..." and to preserve the general welfare.

The state of Texas, through the Texas Commission on Environmental Quality (TCEQ), has the primary responsibility for monitoring and enforcing air quality standards and violations. Some people believe that local government should stay out of the monitoring and enforcement of air quality regulations and leave it to the state. Others, however, believe that current regulations and enforcement efforts do not do enough to protect communities.

Some who support this approach believe that standards, rules, and regulations create a level playing field for all companies and give notice to what is expected of the regulated companies over time. They further believe that in the area of air toxics, the best rules and regulations are those that are applied most broadly, i.e. at the State or Federal level. Many also believe that current regulations do not do enough to protect communities.

Some argue that it is difficult for the state to evaluate air toxics as there are no Federal health-based ambient air quality standards, as there are with ozone, for example. While the state has not established ambient air standards for toxics, it does have a "Watch List" in place that identifies areas where ambient air toxics exceed a certain level. The ambient concentration of air toxics is evaluated by the increased risk of a community to contract cancer as a result of exposure to air toxics. Any area having concentrations higher than 10 cases in a million is placed on the Effects Screening Level (ESL) Watch List and is watched more closely.

Additionally, each "point source" in the region (typically a plant or manufacturing base) is allowed a certain amount of emissions through the TCEQ permitting process. These emissions are assessed individually, rather than cumulatively. Residents are faced with the cumulative impacts of these emissions.

Finally, some companies argue against stricter enforcement and stiffer penalties by any level of government because they represent increased costs for the companies.

Approach 3: Encourage local government to set standards for air quality and sue individual companies for violations.

Given the lack of resources at the state level (in terms of staff and current regulations), some people believe that local governments should be able to monitor companies for emissions and enforce penalties against violators. Many of these people believe that county or municipal governments are the closest level of government to the companies and communities involved and, as such, are the logical entities to set and enforce standards.

Others argue that, as mentioned above, the state has the responsibility for such monitoring and enforcement and believe that enforcement should remain at that level. They point out local governments have finite boundaries and should not be able to regulate companies that are outside their jurisdiction. A good local example is the many plants and refineries in the Baytown area. Even though our air knows no boundaries, should a municipality such as Houston be able to regulate companies that lie in another jurisdiction? The Houston City Council has, on several occasions, authorized legal action be taken against specific sites. To date, these have been resolved by settlements prior to legal action.

Finally, some people are against this idea because it does not establish a level playing field of similar rules applying to all facilities, which could be accomplished with state or Federal regulations.

Summary

The processes established in the Clean Air Act in general work to protect public health. A question arises as to the adequateness of these regulations when multiple large facilities are clustered together, as has occurred in the Houston area. With no clear ambient air quality standard for the air toxics, and without a clear risk-based goal established, it is left to local governments to select an acceptable risk level and work to protect their citizens.