

Houston Regional Air Quality Task Force

Report

September 7, 2007

Prologue

*The Houston Regional Air Quality Task Force (AQTF) is a diverse group of eighteen business executives, economic development executives, community leaders, environmental and health professionals organized to develop a comprehensive understanding of the state of air quality in the region, the human health impacts and risks, and key contributors to air quality. The AQTF was appointed by the Greater Houston Partnership at the encouragement of Mayor Bill White, City of Houston and mayors from other Harris County municipalities. The AQTF set a goal to identify effective regulatory mechanisms and voluntary initiatives that could help reduce air toxic emissions and to recommend such mechanisms and initiatives that could enhance air quality improvement efforts in the Greater Houston region. The AQTF met on a regular basis for five months to understand the current air quality challenges facing the Houston region and to develop the principles for the Clean Air Report. The Principles for Cleaner Air Report recommends initiatives for point-source industry, individual companies, governmental entities, and educational institutions. The AQTF calls upon these stakeholder partners in the cleaner air effort to step forward as **Champions for Cleaner Air**.*

Preamble

The Houston Regional Air Quality Task Force (AQTF) believes that improvement in air quality will create a robust, viable economic climate and improve the public health in the Houston-Galveston region. We challenge all stakeholder partners (industry, business, governmental entities, and educational institutions) in the region to do more to deliver cleaner air. We recommend these partners commit to the following Principles for Cleaner Air and to implement the clean air initiatives outlined in this report.

The AQTF recognizes that state and federal regulations complemented by leadership actions of the stakeholder partners to improve air quality have resulted in significant air emissions reductions. The AQTF further understands that continued, demonstrated industry leadership is necessary while building the collaborative support of additional stakeholders in a comprehensive effort to reduce other significant emission sources that will help the Houston-Galveston region attain cleaner and healthier air quality.

Recommended Principles for Cleaner Air

The AQTF recommends the following principals for cleaner air:

- 1) The AQTF supports efforts to increase data collection, scientific analysis, and development of monitoring and measurement technology that will assist in delivering cleaner air.
- 2) The AQTF advocates for further development of sound science-based air monitoring technologies and encourages all business, industry and local governments to promote improvements in air quality research and scientific measurements that ensure the accuracy of the models and decision data.
- 3) The AQTF supports the Texas Commission on Environmental Quality's (TCEQ) efforts to strengthen existing Effects Screening Levels (ESLs) for the nine compounds (see Attachment A) through peer-reviewed methodology and the application of established ESLs for individual compounds that are based on sound science. The ESLs need to focus on reducing the health risk of the population. The AQTF also supports the development of appropriate guidelines/standards for diesel particulate matter and other compounds.
- 4) The AQTF encourages the establishment of a subcommittee of qualified members to discuss with independent experts the best statistical analysis methods to be used in compiling reported data, performing historical trend analyses, and comparing to ESLs.
- 5) The AQTF encourages the regulated community to continue to support TCEQ and Environmental Protection Agency programs to meet air quality goals.
- 6) The AQTF supports implementation of best management practices and technologies for minimizing emissions.
- 7) The AQTF supports the TCEQ's use of the Air Pollutant Watch List program to identify localized areas with elevated levels of air toxics and encourages efforts to reduce pollution levels in those areas to prevent adverse health effects.
- 8) The AQTF supports the continued research and development of cost-effective, emerging technologies to achieve further reductions in air emissions from all sources.
- 9) The AQTF supports the additional development of the University of Houston diesel test facility to study benzene and particulate matter emissions from heavy equipment engines.
- 10) The AQTF supports regional, municipal, and community programs to effect changes to mobility and lifestyle that result in air emissions reductions.
- 11) The AQTF encourages ongoing public debate to find innovative, value-based solutions for improving air quality through a broad array of strategies and initiatives addressing air pollutants and emissions sources in the Houston region. The public debate should engage

multi-stakeholder groups, including community and political leaders, as well as business and industry.

- 12) The AQTF encourages transparent and open dialogue with accurate and objective communication from elected officials, business, industry, regulators, and the public through various public mediums.
- 13) The AQTF encourages educational and outreach programs to provide accurate, unbiased and objective information to the general public that encourages public participation in solutions for cleaner air.
- 14) The AQTF advocates the continued use of the established ambient air monitoring network to set baseline performance and to monitor and report progress toward cleaner air. This network's data should be supplemented by data from TCEQ's mobile monitoring programs and periodic infrared camera flyover programs (as well as from personal exposure measurements and other monitors) to help define Air Pollutant Watch List areas and identify potential contributing sources.

Recommended Voluntary Initiatives for Individual Companies and Point-Source Industry

The AQTF recommends the following voluntary initiatives for individual companies and point-source industry:

- 1) The AQTF acknowledges this is an initial list and encourages point-source industry and individual companies to build upon existing federal and state regulations to implement the following items as appropriate to reduce air emissions. The AQTF also encourages industry and individual companies to investigate additional initiatives with key stakeholders such as community groups, environmental organizations and local government.
- 2) The AQTF recommends point-source industry support and help fund initiatives to supplement TCEQ funding for proven monitoring technologies and methods such as infrared camera flyovers.
- 3) The AQTF recommends individual companies implement the use of infrared camera technology to find and fix emissions throughout operational areas, including floating roof storage tanks and leak detection and repair components prior to listing components on “delay of repair” list.
- 4) The AQTF recommends point-source industry promote best practices through the provision of best practice learning and educational forums which provide direct support to individual companies.
- 5) The AQTF recommends individual companies become early adopters of best practices and implement recent TCEQ regulations to better manage and avoid storage tank floating roof landings during normal operations.
- 6) The AQTF recommends point-source industry support and help fund a study to collect and analyze emissions data from fixed-roof storage tanks.
- 7) The AQTF recommends individual companies implement procedural and/or control equipment best practices to minimize emissions associated with maintenance, start-up and shutdown activities; to minimize flare emissions; and, to minimize fugitive emissions.
- 8) The AQTF recommends point-source industry implement measures to better quantify site-wide emissions.
- 9) The AQTF recommends point-source industry encourage the development and use of Supplemental Environmental Projects (SEPs) or a class of SEPs to advance AQTF recommendations for additional monitoring, analysis, and capital purchases of emerging technologies, such as the infrared camera, and equipment to supplement TCEQ special programs.

Recommended Non-Industry Initiatives for Cleaner Air

Non-industrial emissions significantly contribute to air quality issues in the Houston-Galveston region. The AQTF encourages stakeholder partners such as light industry and businesses, environmental groups, regional counties, cities and other municipalities, as well as political entities like the Metropolitan Transit Authority of Harris County (METRO) and the Port of Houston, to demonstrate leadership in reducing emissions from cars, trucks, off-road equipment and vehicles.

- 1) The AQTF recommends that these entities support, publicize and otherwise take advantage of the State of Texas programs to reduce on- and off-road mobile emissions such as the Texas Emissions Reduction Plan (TERP) and the Low Income Vehicle Repair Assistance, Retrofit, and Accelerated Vehicle Retirement Program (LIRAP). These programs provide funding to take older, inefficient and high-polluting engines out of use. The AQTF also recommends that these stakeholders consider supporting and publicizing personal lifestyle choices that individuals can make to reduce air emissions. The AQTF acknowledges that this is an initial list and encourages further investigation into additional initiatives with stakeholders such as community groups, environmental organizations and local governments.
- 2) The AQTF recommends that non-industry stakeholders take steps to reduce emissions from diesel engines through programs such as implementing diesel engine retrofits on city and county-owned fleets; encouraging vendors to implement diesel engine retrofits on fleets; supporting the Clean School Bus program and helping fund retrofits and replacements in Houston-Galveston area school districts; and supporting implementation of electrification equipment to reduce diesel truck idling at major Houston-Galveston area truck stops and other truck facilities
- 3) The AQTF recommends non-industry stakeholders take steps to reduce emissions from mobile sources through programs such as supporting and publicizing the utilization of TERP and LIRAP as outlined in Senate Bill 12 to repair or retire older vehicles; demonstrating strong leadership in implementing carpool and vanpool rider ship via education and incentives to individuals and companies and publicizing existing programs such as Commute Solutions; encouraging METRO studies to determine the feasibility of mass transportation routes to areas outside of the Downtown Houston including Harris County Precinct 2; and implementing bicycle and pedestrian projects coordinated with METRO service lines, including bike racks and change areas
- 4) The AQTF recommends non-industry stakeholders implement programs to reduce other air emissions such as offering incentives to small businesses and other area source emitters to install emission controls; encouraging landscape industry's conversion (turnover) to lower-emitting equipment; and working with Houston-Galveston Area Council (H-GAC) and other existing organizations to establish a gas can replacement program for the landscape industry and the general public.

Recommended Public Educational Initiatives

The AQTF recommends the following initiatives for public education:

- 1) The AQTF recommends a Public Education Forum on Clean Air be held each year to educate the community on emissions reductions and improvements in air quality and the public's role in helping deliver cleaner air. The Forum will focus on one or two specific compounds each year. The Forum also will recognize companies, organizations and governmental entities championing the cause of cleaner air through emissions reduction activities. To fulfill the public commitment of Mayor White and the Harris County Mayor's and Council's Association to hold public meetings in East Harris County, the AQTF recommends the first Annual Public Education Forum on Clean Air should be held in East Harris County. The intent is to achieve wide public dissemination of the Forum's content and reports.
- 2) Since ambient air measurements best reflect actual pollutant concentrations within the community, the AQTF encourages the TCEQ to publicly report in this the annual actual ambient air monitoring network data along with emissions sources discovered through infrared camera flyovers, any corrective actions taken by the identified source company, and progress made on emission reductions through Air Pollutant Watch List programs at the Annual Public Education Forum on Clean Air.
- 3) The AQTF recommends companies participating in the Annual Public Education Forum highlight air emission reduction achievements and report on best practices within categories listed below. Participating governmental entities will also report on highlights and best practices for reducing air emissions within categories listed below.

Industry Champions of Air Quality Reporting Categories

Outline current actions taken to reduce emissions footprint & estimate results

[Companies will not necessarily have activities to report in all categories]

- Emissions Monitoring Systems
- Leak Detection and Repair Fugitive Program
- Infrared Camera Find and Fix Program
- Maintenance, Start-up & Shutdown Programs
- Floating Roof Operational & Emissions Recovery Program
- Fixed Roof Operational & Emissions Recovery Program
- Flare Minimization Program
- Cooling Towers
- Miscellaneous Emissions Reduction Programs
- Participation in Operational Best Practice Forums

Government Champions of Air Quality Reporting Categories

Outline current actions taken to reduce emissions footprint & estimate results

[Governmental entities will not necessarily have activities to report in all categories]

- Government Fleets Powered by Alternative Fuels

- Government Programs to Encourage Public Fuel Efficiency
- Government Programs to Reduce Vehicle Miles Traveled
- Government Programs to Reduce Other Emissions (i.e., landscape company equipment turnover and gas can replacement programs)
- Participate in Best Practice Forums

Other Principle Contributors (METRO, Port of Houston, and other Businesses)

Outline current actions taken to reduce emissions footprint & estimate results

[Other principle contributor entities will not necessarily have activities to report in all categories]

- 4) The AQTF recommends a Best Practices Forum be held in conjunction with the Annual Public Education Forum. The Best Practices Forum will highlight point-source industry best practices and procedures implemented in operational areas, as well as best practices and procedures implemented in the operation of fixed and floating tank roofs, fugitive emissions programs. The Forum will also include the best practices unveiled through new technology, such as the use of infrared cameras.
- 5) The AQTF recommends the Annual Public Education Forum on Clean Air be hosted by a select committee of environmental and communication experts appointed by TCEQ, City of Houston, Harris County Public Health & Environmental Services, Harris County Precinct 2, Economic Alliance Houston Port Region, Harris County Mayor's and Council's Association, and H-GAC. Each entity will appoint one technical and one communication professional. The committee will name its chair from the appointees. Representatives of Greater Houston news media management will be asked to participate in ad hoc capacity.

Attachment A

Nine Chemical Components

Acrolein

Acrylonitrile

Benzene

1,3-Butadiene

Chlorine

Chromium (VI) Compounds

Ethylene Dibromide

Formaldehyde

Diisocyanate

Houston Regional Air Quality Task Force Participants

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