

Pasadena Citizens' Advisory Council

Summary of August 28, 2014 Meeting

HEALTH IMPACTS FROM ENVIRONMENTAL EXPOSURE

Slides posted at www.pasadenacac.org

Mortality in Pasadena vs. State of Texas as a Whole

In one of its periodic meetings addressing health impacts from environmental exposure, PCAC obtained data from the Texas Department of State Health Services' Department of Vital Statistics comparing reasons for death in Pasadena zip codes 77002-77006 to the state as a whole. A table showing the percentage in Pasadena and in Texas for the top 7 reasons for death in each is attached. Heart disease is the major cause of death in both, causing 24% of Texas deaths and 26% of Pasadena deaths from 2003-2012. Cancer is second in both, causing 22% of Texas deaths and 23% of Pasadena deaths from 2003-2012.

Also attached is a list from a recent presentation to another CAC by Winnie Hamilton, Director of the Baylor College of Medicine Environmental Health Service. The list names 16 things that may determine one's susceptibility to chronic disease caused or made worse by exposure to environmental health hazards.

How TCEQ Uses Air Data to Protect Public Health

Erin Selvera, Texas Commission on Environmental Quality (TCEQ) Air Pollutant Watch List Coordinator, described how the agency uses air monitoring and emissions data to protect public health. She also described TCEQ's Air Pollutant Watch List (APWL) program and reported on the status of the APWL site for benzene in Galena Park. Selvera is a Special Assistant in the state agency's Air Permits Division.

TCEQ carries out the Texas Clean Air Act, which calls for protection of public health, general welfare, and physical property. Both the air monitoring division and the toxicology division are involved. TCEQ operates air monitors in many locations. Monitoring data provide concentrations of pollutants in the outdoor (ambient) air. Comparing the concentrations to either EPA's National Ambient Air Quality Standards (NAAQS) or TCEQ's Air Monitoring Comparison Values for individual air toxics shows whether concentrations are at levels of concern.

If a NAAQS is exceeded, the area is out of attainment of a specific air quality standard. The state develops a State Implementation Plan (SIP) to show EPA how the state will reach attainment, as they have done for ozone. In the case of particulate matter, the area meets 3 of the 4

standards. Attainment of the newest, stricter standard is pending while more data are gathered. NAAQS are requirements and thus enforceable.

TCEQ has developed Air Monitoring Comparison Values (AMCVs) to protect public health and welfare from both acute and chronic exposures. TCEQ toxicologists develop scientifically sound screening levels and set AMCVs at concentrations well below levels at which health and welfare effects would occur. AMCVs are guidance.

When concentrations of an AMCV remain elevated over time, a specific chemical compound in a specific area may be placed on TCEQ's Air Pollutant Watch List. The agency then develops an action plan for the APWL area to bring concentrations of that pollutant below levels of concern. Plans usually call for increased monitoring, more inspections of facilities with that chemical, and greater scrutiny of permit applications that request increases of the pollutant. TCEQ uses emissions reports to identify possible sources and then negotiates with companies to reduce their emissions of that compound.

Benzene is an example of an air toxic for which there is an Air Monitoring Comparison Value. The monitor in the Galena Park area registered concentrations above the AMCV persistently. After a period, the watch area was expanded and took in a second monitor (Pasadena North). Various reductions in emissions were made. Despite losing most of a year of data in 2012-2013 when Raspberry ants infested the monitoring station, TCEQ now has 6 years of data showing concentrations below the AMCV at the Galena Park monitor. The Pasadena North monitor also shows concentrations below the AMCV. Selvera said the agency may discuss removing the APWL for benzene in Galena Park and Pasadena North but, if they do, the monitors will continue to sample the air. The agency is aware there is growth in the area.