

Deer Park Community Advisory Council

Summary of February 22, 2010 Meeting

DPCAC Encouraged by Air Quality Report

Attainment of the ozone standard, reduced concentrations of air toxics in the outdoor air, and reductions leading to removal of benzene from the Air Pollutant Watch List for the Lynchburg Ferry area made the annual Houston Regional Monitoring (HRM) report to the Deer Park Community Advisory Council (DPCAC) the best since reports began in 1993. Though preliminary, results from the EPA School Air Toxics Monitoring Program monitor at San Jacinto Elementary School showed levels of EPA-selected chemicals to be below EPA short term screening levels. The report was made by Walt Crow on behalf of Houston Regional Monitoring (HRM), a voluntary, industry-supported organization that has sampled and analyzed air in east Harris County for more than 25 years. Crow's presentation also shows data from Texas Commission on Environmental Quality (TCEQ) monitors.

Though the number of air monitors has grown over the years, there has been a steady reduction in the number of days when the concentration of ground level ozone in the outdoor air exceeds its National Ambient Air Quality Standard. For the first time since ozone monitoring began in the mid 1970s, all the regulatory monitors in the Houston area attained the 1997 8-hour-average standard of 0.08 parts per million (ppm). A third of them were below the revised 2008 8-hour-average standard of 0.075 ppm.

Ground level ozone is formed when nitrogen oxides (NO_x) and volatile organic compounds (VOCs) react in the atmosphere in the presence of sunlight on clear days with little or no wind. Since 1985, there has been a 50% reduction in the NO_x concentrations in the outdoor air, even though the population and vehicle-miles driven have doubled over that time. Asked what brought about these reductions, Crow said technology has improved, cars are more efficient, and regulations have led industry to spend billions of dollars, particularly in the last 5 years, to reduce NO_x as well as volatile organic compounds (VOCs).

Certain highly reactive VOCs have been reduced 75% since 2003, including a sharp decline at the TCEQ monitor on Durant Street. Four chemicals tracked since 1988 as indicators of hazardous air pollutants show an 80% reduction in the last 22 years.

One of the four is benzene, which was below the state's Effects Screening Level in 2009 at all HRM sites and at all local sites with gas chromatograph equipment to analyze for benzene. TCEQ recently removed the Lynchburg Ferry area from the benzene Air Pollutant Watch List established in 2003. Several years ago DPCAC asked what more could be done to reduce benzene levels. DPCAC plants with benzene emissions formed a leadership group and worked with TCEQ to help bring the levels down. Benzene levels at TCEQ's Lynchburg Ferry monitor have declined 73% since 2006.

Crow gave a status report on EPA's School Air Toxics Monitoring Program, focusing on benzene, 1, 3-butadiene, and benzo(a)pyrene. EPA posted partial results at www.epa.gov on January 22, 2010. The data show that all 24-hour composite samples were below EPA's short term screening levels. For the sample day with the highest 1,3-butadiene concentration, the nearby Shell Deer Park site checked its activities at that time and found its shutdown emissions were within its air permit limits. Additional information regarding Shell's operating activities during that period, as well as supplemental air monitoring and meteorological data, have been provided to EPA and TCEQ.

Still to be reported is analysis of samples for acrolein. EPA scientists caution against drawing conclusions yet since the program's purpose is to determine whether long-term exposure is a health risk for children and personnel at the 60+ schools across the US in the program. Deer Park Junior High is one of those schools, but the monitor was placed only at the nearby San Jacinto Elementary School.

There will be no regular DPCAC meeting in March. Current and charter members will celebrate the group's 20th anniversary. More information about DPCAC, including meeting summaries, may be found at www.deerparkcac.org.