

AIR MONITORING...NORCO

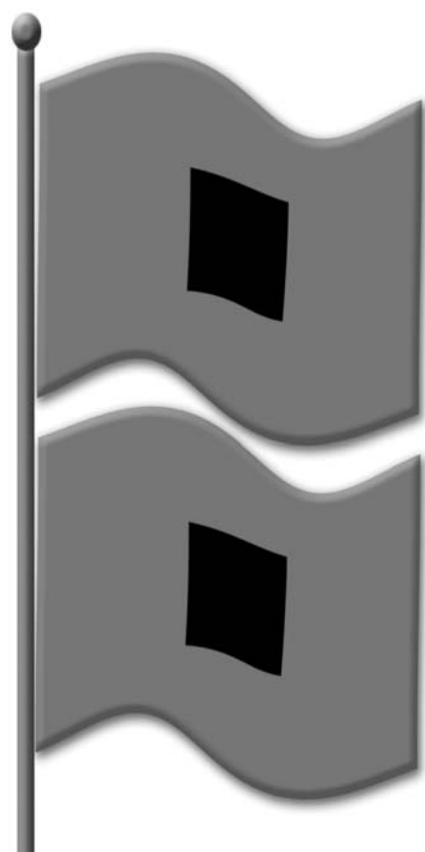
A newsletter to keep you updated on the ambient air monitoring program in Norco, Louisiana

Air Monitoring...Norco is a community project that monitors the air quality in Norco, Louisiana. Ambient air is the outside air all around that we breathe every day. Shell and Motiva have been working with the community, the Louisiana Department of Environmental Quality (LDEQ) and technical experts from Tulane and Southern Universities since 2003 to address your concerns about Norco's air.

Tiger Team Tackles a Hurricane

As we learned in the last Air Monitoring newsletter, the TIGER team (formerly referred to as SWAT team) is a group of Shell and Motiva engineers and site supervisors who meet monthly to understand how air-monitoring results relate to activities at the Norco site. This team initiates investigations if compound concentrations are above normal levels. Hurricane Ivan was one incident, which required a call to action from the team.

On September 14, 2004, the Motiva Norco Refinery and the Shell Chemicals Norco Plant began shutting down all operating units in order to prepare for the possible arrival of Hurricane Ivan in south Louisiana. As we all know, hurricane paths can be rather unpredictable, so Motiva and Shell erred on the side of caution and decided to shut everything down



in preparation for a direct hit. Fortunately, Louisiana was spared the bulk of the damage - from Ivan, and Norco had virtually no meteorological impact at all from the massive storm. Therefore, the facilities began starting back up once the storm had made landfall. This began on September 17, 2004.

The sampling station at the American Legion Hall collected six samples during the start up of operations, with the first collected on September 20, 2004. Upon reviewing the results of these samples, the TIGER team began examining the

eleven most abundant compounds in each sample, and noticed a significant increase in certain compounds, including 1,3-butadiene and benzene which did not exceed Louisiana Department of Environmental Quality (LDEQ) levels.

The winds were also evaluated by the TIGER team, and were out of the east and northeast for the majority of the startup period. The complex was not fully operational until almost a week later, and during this time period, six event samples were collected. Upon reviewing the results of the samples, the team began investigating start-up operations and procedures to determine if anything unusual took place that may have affected any emissions (e.g., flaring, and upsets, etc ...). As a result of this review, the start-up procedures at the Shell Chemical and Motiva site are being modified. We believe that the modified procedures will help to reduce the level of emissions associated with start-ups on the community in the future.

Shell and Motiva are committed to reducing the impact of their operational activities in the community. This type of event was a great learning for the TIGER Team and the changes we are making will help the facilities operate with less impact on the community in the future. □

For more information on
Air Monitoring...Norco
please contact:

Tulane Info-Line at 504-585-6074

Walt Crow, URS, at 713-914-6688

Historical air monitoring data, complete reports, and technical information is available by visiting the ***Air Monitoring...Norco*** website at www.norco-air.info or the LDEQ website at www.deq.state.la.us.

American Legion Monitoring Site is Primary Station

The primary air monitoring site in Norco is centrally located at the American Legion Hall and collects 24-hour duration samples once every twelfth day using evacuated



stainless steel canisters. This location is also equipped to continuously measure non-methane hydrocarbons (NMHC) and meteorological parameters (i.e., wind speed, wind direction, and temperature). If the NMHC levels exceed 2 parts per million (ppm) for a five-minute period, additional one-hour duration canister samples are then collected for this site as well as at the Airline Highway and Bethune Park locations. The event samples are then used to characterize the composition and concentration of common Volatile Organic Compounds (VOCs) during unusual events. This combination of routine and event sampling provides a comprehensive picture of air quality in the Norco community.

URS Announces New Website

URS, the third party monitoring company overseeing the Air Monitoring program in Norco, has recently established a new website. The website houses:

- Historical Data and Links
- Updated Measurement Data
- Wind and Hydrocarbon Roses
- Sampling Equipment and Health Standards
- Louisiana Department of Environmental Ambient Air Violations in Norco

If you have any questions or comments about the Norco Air Monitoring program please visit the site at www.norco-air.info.

What They are saying...

“The Air Monitoring program is telling the rest of the world that Norco is a safe place to live and work ... The program has increased the already strong bond the company has with the community.”

Sal Digirolamo

President, Norco Civic Association

“The air monitoring project provides great information about the air quality and has been conducted very well.”

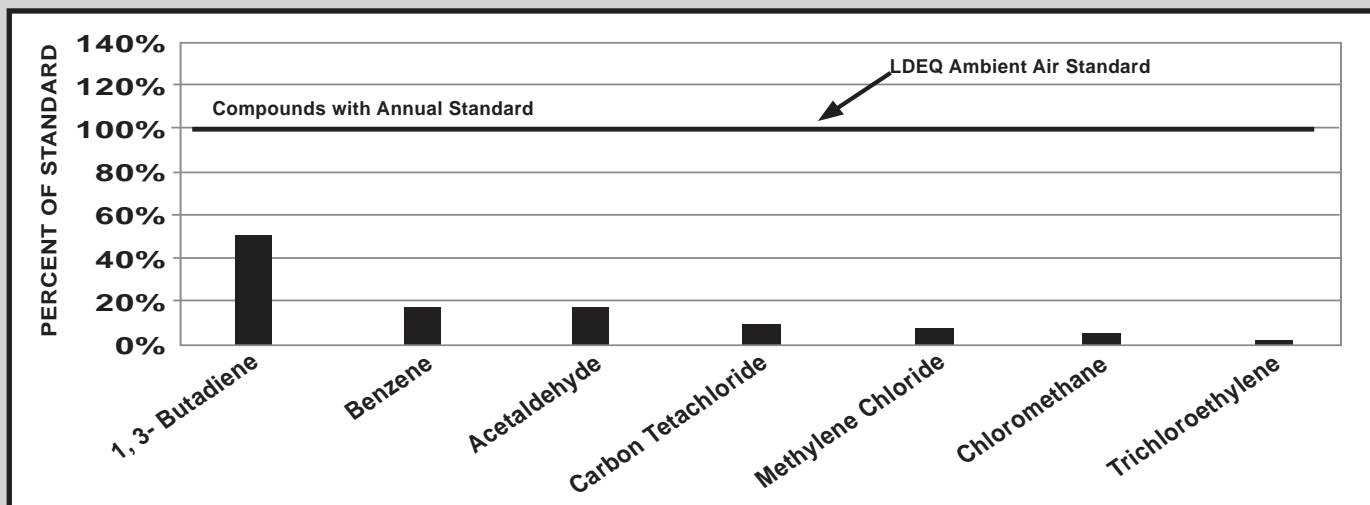
Dr. LuAnn White

Tulane Center for Applied Environmental Public Health, Tulane University New Orleans

Air Monitoring Results Reported

The recent air monitoring information was obtained from April 1, 2004 to December 31, 2004. The samples were collected every sixth day at a single site, in the approximate center of Norco, at the American Legion Hall. This site monitored for a list of 52 compounds established in the initial study and was equipped with an automatic sampling device continuously measuring for hydrocarbons. In addition, a meteorological station was established at the American Legion site, to further support the information from the existing meteorological station on Shell and Motiva’s fence line.

The information collected from this sampling period provides a strong indication that no Louisiana Department of Environmental Quality (LDEQ) standards were exceeded for any measured compounds.



Further, it was established that no increases were seen in twenty of the most abundant compounds in Norco since the last monitoring cycle. The air quality in Norco was compared to other cities in the United States and the air was found to be comparable and in some cases ambient concentrations were lower than some of other U.S. cities.

For more information visit www.norco-air.info.