

## Ensuring Amarillo's Air Quality Meets Federal Standards

Brent Auvermann, TAES-Amarillo

### BACKGROUND

Through the U.S. Environmental Protection Agency (EPA), the federal government maintains a nationwide monitoring network to ensure that air quality meets federal standards to protect public health.



Most of these compliance-monitoring sites are located in urban areas, including the city of Amarillo. In Texas, EPA has delegated authority to the Texas Commission on Environmental Quality (TCEQ) to manage all of the compliance-monitoring sites across the state.

The Amarillo area actually has three federal monitoring sites, two of which are associated with the Pantex nuclear-weapons facility. The third site is intended to gauge the quality of air that the average citizen breathes in the city. As of April 1, 2003, the Texas Agricultural Experiment Station has served as TCEQ's prime subcontractor to manage the Amarillo monitoring site, which is devoted entirely to the measurement of fine particles known as PM<sub>2.5</sub>.

Until April of 2005, the Amarillo site was located on the roof of the downtown library. On April 12, 2005, the site was moved to a new, ground-level monitoring compound behind the Texas A&M Agricultural Research and Extension Center on Amarillo Blvd. The new, 2,000-ft<sup>2</sup> compound is equipped with 120-volt electrical power and fast Ethernet ports in the center and in each corner.

### RESULTS / BENEFITS

- The quality and reliability of the air-monitoring data delivered to TCEQ by the TAES site managers consistently exceed EPA quality-assurance thresholds, with data return routinely exceeding 90%.
- The 3-year TCEQ subcontract set to be renewed in April 2006 has brought over \$100,000 in fiscal resources to TAES-Amarillo. Those funds have leveraged state, commodity-group and federal grants and contracts supporting the TAES-Amarillo's air-quality research program.
- The monitoring compound's physical location in the Harrington Regional Medical Center, along with its physical size, electrical and network features, provides an excellent opportunity to engage in collaborative research with scientists and clinicians in the Texas Tech University Health Sciences Center.

