

Pipeline Risk Assessment

Twin Rivers Unified School District, Sacramento, California



*pipeline risk assessment
methane monitoring
public meeting support*

Terraphase was retained by the Twin Rivers Unified School District located in Sacramento, California (the "District") to assess the risk posed by an underground natural gas storage facility located adjacent to one of their elementary schools. The natural gas storage facility was built in 1951. It consists of approximately 20 miles of pipelines, up to 42 inches in diameter, on a 20-acre parcel. The normal operating pressure of the system is 500 pounds per square inch (psi), though transmission pipelines serving the facility are pressurized up to 720 psi. The elementary school is located 50 feet from the fence line of the storage facility.

Terraphase analyzed the risk posed by the facility using the California Department of Education (CDE) protocol for performing pipeline risk assessments. Because of the location and arrangement of pipes within the natural gas storage facility, the calculated risk is a minimum of 20 times the level of risk CDE deems acceptable for schools located in California. Based on the risk assessment, District staff recommended that the school be closed as soon as practicable.

A special school board meeting was held in Sacramento on November 18, 2010 to discuss the school closure (<http://www.sacbee.com/2010/11/19/3198662/harmon-johnson-elementary-risk.html>), where Terraphase answered questions from the public. The Board accepted staff's recommendation and voted to close the school.

As there was no place to put the students, the Board allowed classes to continue at the school through December 17, 2010 while a closed school was being refurbished to house the entire school population. Terraphase was tasked with monitoring the fence line for methane and preparing an emergency operations plan to assist the school staff with preparing and responding to any emergencies that might arise due to the natural gas storage facility.

The school was demolished the following year.