

## Brackenridge High School (HS) Environmental Notice – PAH Soils

### Background

Polycyclic aromatic hydrocarbons (PAHs) are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat. Animal studies have shown that PAHs can cause harmful effects on the reproductive system, skin, body fluids, and the ability to fight disease after both long and short-term exposures. The Department of Health and Human Services has determined that some PAHs may reasonably be expected to be carcinogens (ASTDR - Agency for Toxic Substances and Disease Registry, September 1996).

In 2006, the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) initiated an investigation just west of the Brackenridge HS campus. As part of that (Big Tex) investigation, soil samples were collected on the Brackenridge campus. Although sample results did not reveal any asbestos contamination, samples at the mound (or berm) located just east of the track and field revealed polycyclic aromatic hydrocarbons (PAH) compounds at concentrations above EPA and TCEQ guidelines.



*The picture above shows the environmental contractor removing the “berm” soil while the picture below shows the foundation remnants from the former high school.*



In the summer of 2007 SAISD hired an environmental construction firm to remove the mound containing the PAH soil. The removal of the mound revealed the presence of concrete foundation structures from a former high school. The construction debris from the collapsed school is the probably source of the PAH contamination. All mound and subsurface construction debris was removed from the area (east of the track). The work was performed with the approval and under the oversight of the TCEQ. Approximately 10,000 cubic yards of soil and construction debris were removed.

SAISD submitted, and TCEQ approved a response action plan (RAP) to address the remaining the area affected by the PAH contaminated construction debris. The “Excavation Zone and PCLE Zone” as shown in the Response Action Completion Report (RACR) for Brackenridge HS is provided on page 3 of this notice. In the summer of 2009, SAISD removed 12-inches of top soil and track material from the

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"protective concentration level exceedence zone", placed a geotech fabric on the excavation; and installed the one-foot physical barrier of clean soil and track material over the fabric. 3,300 cubic yards of soil was removed from the exceedence zone and disposed of as Class II non-hazardous waste.

In 2012 the cider track was replaced with an all-weather track. The track improved site drainage and provided a durable protective layer over a substantial portion of the PCLE zone. The engineered track surface included: a ½ inch rubber running surface; 3 inches of asphalt; and 9 inches of compacted base.

Between 2007 and 2010 SAISD spent over \$530,000.00 at Brackenridge High School to:

- removed and disposed of 13,300 cubic yards of soil;
- placed a minimum 12-inch physical barrier of clean soil over the PAH "exceedence zone";
- conducted ground water sample verifying that the PAHs have not affected the ground water;
- conducted soil sampling to determine the extent of the remaining PAH fill material;
- rebuilt the affected sections of the track and field; and
- filled a deed notice with Bexar County indicating the presence of the remaining "protective concentration level exceedence zone".



*Top views (taken on January 12 and 19, 2012) show compacted flex base and placement of 3" of asphalt.* In 2012 an all-weather track was installed providing a higher degree of physical control (from the remaining PAH soils) than the (previous) cider track. On September 30, 2013 Mr. Craig Tribbley, P.G. with STC Environmental Services Inc. of San Antonio, Texas confirmed that the physical control remains in place and is in good condition.

### What you need to know

1. There is PAH soil under part of the track and field at Brackenridge HS.
2. A protective layer (physical control) protects students, staff and the general public from any ill effects of these PAH containing soils.
3. The effectiveness of physical control is verified every three years by a licensed professional geologist.
4. The physical control must not be damaged or modified. This would include any drilling or excavation in excess of 12 inches below the area demarcated in the diagram noted below.

### Questions

Contact Peter Swerzenski ([pswerzenski@saisd.net](mailto:pswerzenski@saisd.net)) 210-554-2420, AD Environmental Programs, if you have any questions regarding this informational notice or if you suspect the physical control is or may become damage.

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