



Response to March 20, 2008 Burleson County Tribune Advertisement

Introduction

On Thursday, March 20, 2008, an advertisement was placed in the Burleson County Tribune that purportedly compared and contrasted “actual conclusions” of Texas A&M researchers with prior findings and conclusions of CTEH derived from environmental investigations conducted in and around Somerville, Texas. This response document addresses the various assertions made in the advertisement regarding the A&M conclusions, and contrasts these assertions with actual A&M findings and other relevant information.

Assertion Number 1 – “The tests show that children in the hallways at Somerville Elementary School are exposed to cancer-causing arsenic and chromium at levels higher than those found at the World Trade Center after 9/11.”

CTEH Response

1. **There was no arsenic detected in any floor wipe sample obtained by A&M from the elementary school, or from any of the Somerville school facilities.** This can be seen by reviewing the “Inorganic Analysis Data Sheet” attached to the A&M report. Any sample that has a “U” in the “C” column had a non-detect result for arsenic, meaning that no arsenic was detected in that wipe sample. This includes samples SV001 (BMC floor), SV004 (Elementary School gym floor), SV005 (Elementary School cafeteria floor), SV007 (Elementary School floor-main hallway/entrance), and SV008 (Junior High School floor-main hallway, front entrance). As reported in our March 17, 2008 Supplemental Report, CTEH’s testing also found no detectable levels of arsenic in any school wipe sample.
2. **After adjusting for the field blank, there was no chromium detected by Texas A&M in either the floor or attic samples from any Somerville School building.** It is common to send a “field” or “trip” blank to the laboratory to be analyzed using the same methods and procedures that are employed for actual site samples taken during an investigation.¹ The blank is actually just an unused wipe cloth that is either kept in its packaging, or removed from the packaging and shipped with the other samples to the lab. It is used to see if the laboratory can detect any metals on the wipe with no sample on it. If the laboratory detects the metal in the blank, then only the samples with levels higher than the blank can be considered as true “detections.” In this project, A&M sent a clean wipe sample blank (sample SV009) to the laboratory, which then tested it for arsenic, chromium and copper. While no arsenic was detected in the clean wipe, copper and chromium were detected in the wipe. In fact, the amount

¹ The Texas A&M researchers refer to this as a “laboratory blank” in their report.

of chromium detected in the clean, unused wipe was higher than found in any of the wipes used on the floors or attics at the schools. **This means that, in fact, there were no detectable levels of chromium on the floors or in the attics of the Somerville school buildings.** These findings are similar to those of CTEH, in that our investigation also revealed no detectable chromium in any wipe sample from the Somerville School buildings.

3. The A&M report does not say that the arsenic and chromium levels in the “hallways at Somerville Elementary School” were “higher than those found at the World Trade Center after 9/11.” The Elementary School hallway sample was designated as sample SV007 by A&M. The investigators stated the following regarding this sample, “Metals were detected....but all were at relatively lower levels.” (A&M report, page 15)
4. **The type of chromium detected in the Elementary School attics is not the type that causes cancer.**² In fact, the type of chromium found in the Elementary School is defined by National Academy of Sciences Institute of Medicine as an “essential” nutrient, meaning that it is “essential for human well-being and usually for life itself.” It is the same form of chromium present in food and vitamins (NAS, 2002). It is also noteworthy that nowhere in the A&M report do the investigators conclude that the form of chromium found in the school wipe samples is associated with cancer.
5. As discussed in our March 17, 2008 Supplemental Report, all samples obtained by Texas A&M, even the wipes from the attics, are below the health-based residential guidelines established for indoor living spaces by the World Trade Center Chemicals of Potential Concern (COPC) Committee.

Assertion Number 2 – “In the elementary school attic, cancer-causing PAHs were found in levels comparable to heavily polluted regions of China. The same school building has chromium, copper, and dioxins in amounts “well above” the maximum levels found at the World Trade Center.”

CTEH Response

1. In the areas of the school where the students and teachers study and work, the Texas A&M samples showed PAH levels that were, in fact, far lower than those reported from China. Even the highest level found in accessible areas of the schools was below the lowest level found in China. Furthermore, with the exception of a single attic sample, the total PAH levels in all of the other school floor and attic wipes were within the “low” range of levels reported by A&M for South Texas homes.
2. As noted in our March 17, 2008 supplemental report, the Chatfield and Kominsky World Trade Center study cited in the A&M report looked at only three apartments sampled one week following 9/11. Later on, hundreds of additional samples were taken from residential properties close to and far away from the World Trade Center. When all of these data are considered, it is apparent that dioxins,

² There are two main forms of chromium in the environment; chromium +3 and chromium +6. Chromium +6 has been shown to cause lung cancer in some workers who breathe large amounts, but chromium +3 does not cause cancer. When the expert hired by the plaintiffs’ attorney sampled dust from the Somerville Elementary school attics, he showed that chromium +6 was not present in the dust.

arsenic, and chromium levels detected by A&M at the Somerville schools are NOT “well above” the maximum levels found at the World Trade Center.

3. This assertion regarding chromium, copper, and dioxins implies that the levels “found at the World Trade Center” are a cause for concern. However, while the authors of the WTC study that is cited by the Texas A&M researchers do raise concerns regarding the levels of asbestos found in these apartments, they concluded that the levels of dioxins, copper, chromium, and arsenic were “generally low or below comparative background levels.” (Chatfield and Kominsky, 2001; page 41; emphasis added). Furthermore, the dioxin levels found in the Somerville schools, even in the attics, are below the background levels reported for residential properties not impacted by the events of 9/11.
4. Since the Somerville attics have collected dusts for decades, it is not proper to compare wipe sample results from these locations with wipe sample results from living spaces from other locations. In fact, regardless of where you are, you would expect wipes from attics to have more dust than wipes from floors. Higher wipe sample results from an attic do not necessarily mean that the attic is “contaminated.” As discussed in our March 17, 2008 Supplemental Report (page 17), the higher surface wipe results for arsenic, copper, and chromium in the school attics as compared to the accessible areas, are not because there are elevated concentrations of these metals in the dusts. Rather, there is simply more dust in the attic than found in the regularly cleaned areas of the schools.
5. The PAH, dioxins, arsenic, copper, and chromium levels detected in the elementary school, even in the attics, are well below the health-based residential guidelines established for indoor living spaces by the World Trade Center Chemicals of Potential Concern (COPC) Committee.

Assertion Number 3 – “When children are exposed to carcinogens such as those that the Texas A&M study found at Somerville facilities, their long-term risk factor for cancer and other illnesses is three times greater than that of adults, according to the EPA.”

CTEH Response

1. It is important to note that this assertion regarding cancer risk for children is not found or even alluded to anywhere in the A&M report. In reality, the approach to certain, but not all cancer causing agents referred to in this statement is not specific to Somerville schools, but could be applied to PAH exposures that occur from many sources, the most common of which for children, is food. Any assessment of potential cancer risk must be made in the context of an assessment of the potential exposure than an individual may receive at a given location.
2. Accordingly, as demonstrated in our March 17, 2008 Supplemental Report, the average PAH level measured in wipe samples taken from the areas of the Somerville schools where children frequent is over 1,600 times below the health-based residential guideline established for indoor living spaces by the World Trade Center Chemicals of Potential Concern (COPC) Committee, and 160 times below the more stringent guideline developed by CTEH. Accordingly, even if a 3-fold higher risk factor is applied, potential exposures are still far below health based objectives.

Assertion Number 4 – “The major source of these chemicals; a railroad tie plant once owned by Burlington Northern Santa Fe and now operated by Koppers Inc.”

CTEH Response

1. The assertion that the “major source of these chemicals” found in the Somerville schools is the tie plant was not a conclusion of the Texas A&M researchers. The report does note that the predominant dioxin found in the Somerville testing was OCDD, and that this chemical is also the predominant dioxin in waste products from the production of pentachlorophenol. However, as noted in our March 17, 2008 Supplemental report, this same type of dioxin is the most common one found in the environment in general and, in fact, it is expected that it would be found in the highest concentration in soils and dusts in an around any school, regardless of where it is located. For example, OCDD was the highest dioxin congener present in the dust of background Texas homes which could not have been impacted by emissions from the Somerville Tie Plant.

Assertion Number 5 – “They (toxins) could get into the classroom. They certainly could get into the duct work and breathing air for the children.”

CTEH Response

1. As discussed in our March 17, 2008 Supplemental report, there is no evidence that attic dusts are migrating into the interior spaces of the schools. To the contrary, the results from the accessible interior spaces sampled by Texas A&M and CTEH are within expected levels for indoor settings.
2. In CTEH’s February 26, 2008 report, we discussed and compared the Somerville results for dioxin testing in attics with testing performed in schools and a community center from Nitro, West Virginia. The dioxin concentrations found in Nitro dusts were higher than those found in Somerville attics. However, in reviewing these data, the U.S. EPA concluded that none of their evaluations “demonstrated an unacceptable risk of exposure to dioxin.” They also noted that in comparison to samples from areas where students and teachers study and work, “contaminated dust in areas of infrequent contact (such as ceiling rafters) pose much less of an exposure threat (and, consequently, less risk).” The Agency for Toxic Substances and Disease Registry (ATSDR) studied these samples and concluded that the dusts posed “no apparent public health hazard.” The ATSDR also concluded that “no recommendations are needed to avoid potential health effects from exposure to dioxin at this site based on the information available.”