

**Adelaide Avenue Environmental Justice Coalition
60 Crescent Street
Providence, Rhode Island 02907**

January 29, 2010

Mr. Joseph T. Martella II, Senior Engineer
RIDEM-Office of Waste Management
Site Remediation Program
235 Promenade Street
Providence, RI 02908

**RE: Request for modification of Trichloroethylene (TCE) Indoor Air
Action Level - Textron Contamination Site-Plat 51, Lot170,
333Adelaide Ave., Providence, RI.**

Dear Mr. Martella:

The Rhode Island Department of Environmental Management (**RIDEM**) has recently received a request from Textron Inc. for a modification of Indoor Air Action Level values concerning their contaminated site located in South Providence at 333 Adelaide Avenue; former home of the **Gorham Silver Manufacturing Plant, Waste Landfill, and Plant Discharge Lagoon** (Mashapaug Cove); encompassing thirty six (36) acres, and located on the shores of Mashapaug Pond.

Our community has many concerns related to this contaminated site, not the least of which is the quality of indoor air within the school now located on the abovementioned property. Textron Inc.'s request and insistence on a modification for their target indoor air criteria for the abandoned Stop & Shop Retail Complex is our worst fear come true.

To address each misrepresented fact or itemize all the inconsistencies of Textron's "concepts" within their correspondence to the RIDEM would be laborious. Instead the community would like to bring to the attention of the RIDEM the Environmental Protection Agency (**EPA's**) most recent and relevant protocol pertaining to Volatile Organic Chlorinated (**VOC**) solvents which have been improperly and illegally discharged into the ground, city sewer and wastewater systems, lakes and water bodies, and groundwater affecting all Rhode Island communities, but especially Environmental Justice Communities such as South Providence.

Below is our response to Textron Inc. and their legal department's interpretation of their Engineer's (Mactec) assessment of the most recent EPA evaluations:

“The Connecticut Target Air Criteria (TAC’s) were utilized in the derivation of proposed groundwater volatilization criteria and soil volatilization criteria contained in the 2003 document.”

Had Textron Inc. and their partner in this project, the Providence Redevelopment Agency (PRA), guided by Tom Deller, made any initial commitment to soil vapor volatilization investigations and/or mitigation within the footprint of these buildings; these health issues and the mounting, extraordinary additional costs incurred at this site would not exist.

The interior Target Air Concentrations (TAC) for Trichloroethylene (TCE) for both residential and commercial spaces per the RIDEM is one microgram/per cubic meter (1ug/m³). If you look closely at the Connecticut Department of Environmental Protection (CTDEP) Table 1 and Appendix B, March, 2003 (*referred to in Textron’s proposal and references*) there is a footnote for both TCE and PCE, which denotes that these indoor air values were established based on conceivable and achievable ambient levels. By 2003 the CTDEP was encountering conditions at vapor intrusion sites (such as Textron’s) where the ambient VOC air values were already exceeding proposed background levels. Had the CTDEP actualized their real target indoor air concentrations, based on USEPA proposals at the time; (*and adhered to them*), the values would have been well below average ambient background levels of .21 ug/m³ or less.

Textron aptly notes, ***“Appendix B of the 2003 Proposed Revisions also explains that in some cases, when the risk-based TAC is lower than the [indoor?] air background concentration, the TAC is set at the background concentration.”***

We concur; if the site outdoor ambient air concentrations are higher than the established indoor TAC’s, then the higher value would prevail. According to Textron’s Engineer, Mactec, the average ambient outdoor air concentrations for TCE at this site have consistently been below .11ug/m³ since sampling was implemented four years ago.

“The remedial objective for each carcinogenic substance does not exceed a 1 x 10⁻⁶ excess lifetime cancer risk level and the cumulative excess lifetime cancer risk posed by the contaminated site does not exceed 1x 10⁻⁵.”

We are grateful to Mactec and Textron Inc. for introducing and addressing the issue of cumulative and synergistic contamination consequences from all indoor carcinogenic VOC contaminants at their site. The total toxicity of these combined carcinogens, and how they impact the analysis of indoor air (both commercial and residential) is ongoing. This is clearly a discussion the RIDEM needs to have with the community (and its own personnel).

“The 2003 CTDEP risk-based TAC was based on a unit risk (UR) of 1.1×10^{-4} per ug/m³, which was taken from a 2001 USEPA white paper concerning the toxicity of TCE. The USEPA does not currently use that UR value.”

There was no white paper; it was an actual USEPA declaration. The information and data was immediately shelved at the time by the prevailing federal administration per industry (*responsible parties*) concerns about both liability and cleanup costs. The issue of VOC contamination and toxicity; specifically vapor intrusion consequences have been in play since 2001. In fact, the removal of that document is the reason that most State risk assessments defer to the California EPA toxicity values for TCE. The one clear undisputed fact established by the EPA in 2001 was that Trichloroethylene was reclassified as a **known human carcinogen**. The USEPA is preparing to finalize its classification and review of both TCE and PCE, and expects to have the Academy of National Sciences (ANS) peer review for TCE toxicity completed by late 2010. We have included an attachment exhibiting a chronological outline for the RIDEM’s review concerning the “history of TCE white papers”.

“The 2003 CTDEP proposed TAC for TCE is now outdated. Currently, the USEPA uses a UR of 2×10^{-6} per ug/m³ as the basis for its Regional Screening Levels for indoor air.”

The CTDEP or RIDEM values for indoor air concentrations for TCE are not outdated. They were never “dated”. As was mentioned previously, if Connecticut’s indoor air values actually followed the unit risk (UR) values at the time, they would have been considerably less than 1ug/m³. Additionally Textron and Mactec are incorrect in asserting that the prevailing USEPA UR is 2×10^{-6} . It would be instructional to see Mr. Simpson’s formulations.

On November 3, 2009 the EPA released a draft of its Toxicological Review of Trichloroethylene for public comment. Most importantly the document concluded that TCE is carcinogenic in humans by all routes of exposure. Secondly, it calculated an inhalation unit risk of 2×10^{-2} per ppm (slope = 4×10^{-6} per ug/m³) or four (4) excess cancer cases per one(1) million people exposed to one (1) ug/m³ over a lifetime. The document is 1109 pages in length, so we have included only the cover page for your reference. Textron’s analysis and contentions are inaccurate.

Because USEPA’s toxicity information is more up to date.... and because the TAC derivation is not consistent with current EPA guidance for risk assessment of inhalation exposures (a requirement of the Remediation Regulations), Textron is requesting that the compliance monitoring criteria for the Short Term Response Action (“action level”) for TCE be updated from 1 ug/m³ to 6.1 ug/m³. This update could be accomplished with an addendum to the Order of Approval.

The community will embrace any new and developing EPA standards when they are legitimized and accepted by the scientific community at large. Until then it might behoove both Textron (responsible party) and the Providence Redevelopment Agency (also a responsible party) to establish a coherent and comprehensive **“Long Term**

Response Action or Solution” to the outstanding vapor intrusion issues vexing their “Showcase Brownfield Site” located in our neighborhood here in South Providence.

Sincerely,

Adelaide Avenue Environmental Justice Coalition

cc:

Terence D. Grey, P.E., Assistant Director, RIDEM/AW&C
Richard Enander, PHD, RIDEM/OTCA/Risk Assessment
Barbara Morin, RIDEM/OAR
John Langlois, Esq., RIDEM/Legal
John Lombardi, City Council
Miguel Luna, City Council
Leon Tejada, City Council
Robert Vanderslice, PHD, RIDOH
Thomas Deller, City of Providence
Tammie A. McRae, ATSDR
Greg Simpson, Textron