

ENVIRONMENTAL & PLANNING ASSOCIATES, INC.

August 22, 2019

Mr. Bill Aleshire
AleshireLAW, PC
700 Lavaca, Suite 1400
Austin, TX. 78701

Dear Bill:

AleshireLAW hired Environmental & Planning Associates, Inc. to read, review and summarize a collection of documents received from City of Austin, TCEQ, and others in response to Public Information and or FOIA requests regarding the former Reichhold Chemical plant site and registered solid waste disposal site, located at 10715 N. Burnet Road, and frequently referred to as the McKalla site, in preparation for possible court proceedings.

Salient Points

Reichhold Chemical Company practices result in its plant sites appearing 607 times in a search of the EPA Superfund (CERCLA) Databases of contaminated sites/violations.

An explosion occurred at Reichhold in 1985, destroying a sufficiently large part of the plant to cause it to close down permanently. After cleaning up the blast debris, both Reichhold and TNRCC stated that the site was 'cleaned up'. City apparently believed them.

Nine years after the first blast, the McKalla site, solid waste dump site TX008115990 per TCEQ and EPA, was examined as a Superfund site under state and federal CERCLA guidelines, in 1994, but, despite the record of Reichhold mis-handling toxic chemicals company-wide, it was not listed. Subsequent testing and events on the site cast a pall over that finding.

In 2003, a second explosion occurred on the site that TNRCC and Reichhold said was 'clean' when City workers were excavating for a utility line and contacted buried, explosive, toxic waste. The blast crater was located within, and close to, long-used waste product holding ponds and toxic waste burial areas. (Shaw 2003, p. 2, ¶ 1). Four or five workers were injured in the blast and construction equipment was badly damaged.

City consultants Shaw Environmental Inc, in 2003, and Terracon, in 2019, both urged using 'high-hazard condition' work methods for ANY site excavation because of these blasts. For example this is what Shaw used in its work and strongly recommended for any other work on the site (Shaw 2003, p. 5, ¶ 3.1):

Major equipment to be ... equipped with a Lexan™ blast shield, and supplied [with breathing] air bottle rack, a frame mounted mobile Lexan™ blast shield for the

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spotter, Level B personnel protective equipment (PPE) and necessary support equipment, flame resistant clothing, a pollution control truck, radio communicators, a crew pick-up truck, Combustion Gas Indicator (CGI), photo ionization detector (PID), real time respirable dust monitors (PRAM) and other personnel monitoring equipment, perimeter air monitoring equipment, remote thermal sensor, and video camera. Temporary fencing, barricades, or barrier tape around the excavation area will be installed as required by the SSHSP.

That means workers carry lexan (bullet proof) blast shields, equipment has explosion proof ‘blast cages’ around operators with air tanks to breathe, extra spotters with blast shields, workers wearing ‘moon’ or blast suits, rubber gloves and boots, explosives ‘sniffers’ and work only on weekends with AFD, APD and EMS standing by. City anticipates that the possibility of another blast occurring during excavation still exists, in 2019, and communicated that to Terracon and Austin FC. We found that the City Site Plan includes no mention of, nor repeat of their stated need, for using any High-Hazard Protocols in excavation on the site to protect city workers or those with private sector contractors from yet another explosion or toxics.

Information concerning the probability of buried toxins remaining on the site as of the current date is clearly suspected and inferred in the documents you provided and obtained by PIR and FOIA from City of Austin, TCEQ and others

City wishes to give this site to a user to use for ‘affordable housing’, an ‘entertainment venue’ and a soccer stadium. A desire to ‘unload’ properties that are registered as ‘Brownfields’ or ‘Superfund’ sites is not an uncommon strategy for owners of sites known to be, or shown to be, contaminated with toxic and/or dangerous industrial chemicals and their byproducts by previous users. Liability for clean-up and damages under federal and state laws reaches far into the future on such sites. McKalla is such a site.

The Site Plan Review Process documents from the City of Austin web site shows numerous areas where staff comments and concerns were ignored, suppressed and excluded, and City ordinance and requirements were waived or ignored.

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The following represents the most significant information found in PIR/FOIA documents we examined, and these are discussed in greater depth herein below:

- A review of the results by Shaw and COA chemists indicated that degradation products of MEKP, BPO or t-BP were present in the ‘vast majority’ of the soil on the site as this was their description of what was evaluated.
- The chemical evidence indicated that one of the chemicals produced by Reichhold, probably an unstable peroxide (BPO), caused the 2003 explosion, making all following site work ‘High Hazard Excavation’. Shaw in 2003, and later City, and Terracon in 2019, all recommended these same high-hazard-condition work protocols be followed in stadium site excavation and testing.

- A review of TNRCC, Terracon, TCEQ, and City production is repeatedly inconsistent and contradictory on the matter of site remediation and contaminated soil ‘clean-up’.
- TCEQ amended its Closure determination several times after the initial one, when it was shown over and over that the site was, in fact, not cleaned and not free of buried toxic chemicals, many of which are banned in the United States.
- City sued Reichhold in 2006, alleging the site was not cleaned up, prevailed, and was awarded \$3.6 million in damages, demonstrating that earlier statements by Reichhold, and findings of EPA and TNRCC/TCEQ to be inadequate, or just plain wrong.
- City and TCEQ both knew at least two toxics were still present on the property 20 years after City sued and made its case, despite later TCEQ and EPA letters, because they have not tested all the soil and sampled enough of it for toxics that are shown time and again to have been buried all over the site.
- On April 11, 2019, CoA Daniel asked CoA Robinson to: “Please stop by to look at the incomplete plans submitted for this review. It is a waste of time to write out as many comments as are needed to address the shortfalls. These plans are supposed to be complete construction plans. They are not.”

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After the second blast in November, 2003, Shaw Environmental Inc. produced an ‘Excavation Work Plan’ for City of Austin Director of Public Works. It was received by TCEQ, Feb 2, 2006, more than 2 years later. Shaw and its subsequent reports and investigatory results have been in the hands of the City of Austin for sixteen years, and those documents indisputably show City staff and leadership has been well aware of the toxic chemicals used and disposed of on the property. Reichhold was cited several times for improper disposal and handling violations at McKalla. Clearly they convinced TNRCC they had cleaned up the problems, but City’s lawsuit twenty years later puts the lie to that.

The narrow purpose of the Shaw report was: (1) determine the cause of the 2003 blast; (2) determine if subsurface anomalies located during the geophysical survey are buried containers or other solid waste materials; and (3) determine if the containers or other materials in the subsurface at the site pose a health and safety hazard to future construction activities. It is notable that Shaw stated the work was not conformed to methods that would determine whether the toxic chemicals left in the site represented health and safety hazard to the general public, or to future users of the site. (Shaw 2003, p. 2, ¶ 1)

A review of the results by Shaw and COA chemists indicated that degradation products of MEKP, BPO or t-BP were present in the ‘vast majority’ of the soil on the site. This was their description. The chemical evidence indicated that one of the chemicals produced by Reichhold, probably a highly unstable peroxide (BPO), caused the explosions, making any follow-on site work ‘High Hazard Excavation’ since it was not known (still, in 2003) how much BPO was on the site, or where. We recommend the nine paragraphs in the section on ‘Hazardous Excavation’ in Shaw (Shaw 2003, p. 5, ¶ 4.2.4 and 4.3): be read closely. Shaw clearly shows there is a high likelihood of further prohibited chemicals on the McKalla site in its cautions for future work thereon.

Descriptions of the closure work in the City's documents differ wildly, variously stating:

- “... the vast majority of the site was excavated to bedrock, the soil sifted, placed back and compacted.” (CoA G. Kiloh in Terracon Feb 2019, p 8); to
- “... the entire site was excavated to bedrock and clean fill brought in to replace the contaminated soil; to
- descriptions of material being shoveled up, sifted or mechanically screened of large chunks and debris, and then contaminated soils just put back where excavated; to
- selenium being found in a thin veneer at bedrock – after multiple site clean-ups - but, being difficult to remove, the selenium was just left where they found it with ready access to the shallow water table and the fractured and fissured limestone.

The second approach, above, would remove the contaminated soil and its list of detected toxins and carcinogens from the site if it was done and done correctly, the others all re-bury it and them right back on site, where they found them. These locations, even if they represent ‘the vast majority of the site’, did not remove the contaminants known to be present on this solid waste dump site from DHL analysis of samples taken by Shaw and by others.

TCEQ amended its Closure determination three times after the initial one, when it was later and repeatedly shown that the site was, in fact, not clean and not free of buried toxic chemicals. Nothing argues with any eloquence that they are right currently, nor that they will be right the next time. Owners of toxic chemical dumps have ongoing liability for environmental damage and clean-up under federal and state law. Relying on a faulty closure letter does not alleviate that liability.

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Reviewing all of the City documentation raised several questions that are important to the Austin environmental community and should be even more important to City and state regulators:

1. Is there a worry that the shallow water table will likely transport contaminants, that City has put back in place on the site after sifting, to the groundwater?

Terracon states: “Groundwater seepage should be expected at this site, particularly in the form of seepage traveling along pervious seams/fissures in the soil, along the soil/limestone interface and or in fissures/fractures in the limestone.” Terracon, 2019, p. 5, ¶ 1.

2. Does the City really believe, in the continuum of time from 1995 through mid-2019, that the McKalla site is clean?

No, it does not, and that fact is repeatedly demonstrated and corroborated in documents received in PIRs from the City.

- a. City of Austin sued Reichhold for failure to clean up the site and other allegations, and was awarded \$3.6 million by the courts for its own clean-up costs in 2006.

- b. Ten years later, in 2015, “There were two areas that had soil exceedances: one for BPO and the other for selenium, which were both below ground surface.” (McKalla Assessment, PIR). Selenium was apparently not mentioned in the Reichhold era paperwork at all.
- c. In another Assessment paragraph, they described removing cans, bottles and such debris and, “Once the objects were collected and documented, the excavation was backfilled, unaffected soils were replaced on-site and compacted.” The soils weren’t tested for chemicals, but just physically screened for objectionable ‘objects’ and put back, so how did they know they were ‘unaffected’ by toxic chemicals? They did not know.
- d. In another paragraph, the next year: “In 2016, COA performed additional assessment to address the [land use restrictions]. Two monitoring wells were installed at the site to develop a site-specific cleanup level for Selenium and BPO”. City and TCEQ both knew at least these two toxics were still present on the property, 20 years after City sued and made the case the site was not cleaned up, despite letters from TCEQ and EPA later proven wrong, because they had not and have not to this day, examined all the soil and sampled enough of it for toxic materials that are shown time and again to have been buried all over the site, and found largely every time a new hole is dug.

3. Can that affirmative statement be supported?

City does so itself, as do the City’s consultants and experts, unanimously. Two years later, on July 30, 2018, CoA G. Kiloh stated that, given the history of the site and: “As a worst case scenario, we have conservatively estimated the cost to fully excavate those areas to bedrock and replace with clean, imported fill to be \$1,105,000.” City’s significant ‘level of uncertainty’ is backed up with the setting aside of \$1,105,000 for the clean-up of whatever else they, Shaw, Terracon, Reichhold, TCEQ and everyone else have not yet discovered, when they are excavating on the site in the future, supposedly, but apparently not, using people and equipment in heavy blast protection gear.

City has stated that their fill in many areas was sifted, chunks and debris removed, and contaminated soil put back in place, which contaminated soil now appears as fill in Terracon’s soil boring study for Austin FC, January 2019, and in several bores the already shallow water table on the site exists within the fill. “Sixteen of the 22 borings exhibited fill to depths ranging from about 0.5 to 15 feet. We have no records to indicate if the fill was placed in a controlled manner or, the degree of control if it was placed in a controlled manner. However, based on information provided to us, we understand that the City of Austin oversaw the remediation that occurred at this site. The remediation efforts included excavating a majority of the soils down to limestone bedrock, screening the excavated soils (for contaminants due to this site being an old chemical plant), and then recompacting up to existing grades.” (Terracon, 2019, p. 8, ¶ 3)

And further, “However, given the explosive nature of some of the contaminants previously found on the chemical plant site, the City of Austin recommended that excavation procedures similar to those outlined in Section 3.1 of the Excavation Work Plan (prepared by Shaw Environmental,

Inc., dated November 2003) be followed if and when those areas are excavated for the stadium/site construction.” (Terracon, 2019, p. 8, ¶ 4)

TCEQ and City have been consistently wrong on the cleanliness of the soils on this site four times to this point, if not more. Nothing has changed that would indicate that either of them know the soils are not thoroughly contaminated with toxic chemicals currently, and statements such as the above and below underscore that skepticism: “... the excavation will be backfilled using the previously excavated spoils.”

4. So what can be expected based on analyses done in previous failed attempts to rid the site of toxic chemicals? What may still be present on the property about which, for whatever reason, neither the TCEQ nor the City seem to be at all concerned?

In Appendix B of Shaw they included DHL Laboratory testing, in 20 pages of analytical test results for industrial chemicals they detected and identified in five site samples obtained by Shaw. Some were unidentified chemicals described in the results as ‘unknown hydrocarbon’.

The identified list extends far beyond the four that were the focus of the report: BPO – benzoyl peroxide, DMP – dimethyl phthalate, MEKP – methyl ethyl ketone peroxide, t-BP – tert-butyl perbenzoate.

Those four include one or more known (by various agencies) to be carcinogens, mutagens, and toxins. Some of the other chemicals consistently found from sample to sample include benzene, toluene, vinyl chloride, acetone, hexachlorobenzene, carbon tetrachloride, chloroform, methylene chloride, naphthalene, trichloroethene and its esters, chlorobenzene, methylene chloride, phenols, flourene, nitrobenzene, pyridine, benzoic acid, 4-chlorophenyl phenyl ether, carbon disulfide, hexachlorobutadiene, diethyl and dimethyl phthalate and molecular variants and organic esters of many of these. Many of these are very ugly in any quantity in the environment and below is just a small sampling of known properties of some of the above, found in the soil on the Reichhold Chemical site.

Several of these chemical compounds are among the toxic chemical stew we know as polychlorinated bi-phenyls or PCBs. The EPA has classified many PCBs as carcinogens and all are considered highly toxic in the environment. Most are now banned, entirely.

Hexachlorobutadiene was used as a solvent for other chlorine compounds, and later production of it was banned and it was placed on the prohibited list in the Canadian Environmental Protection Act. It is so toxic it is prohibited from use or import to the United States. Research discovered the chemical to also be hazardous to the environment. It can cause degeneration of the liver and disfiguration of human nervous systems. It bio-accumulates in the food chain.

Chloroform is toxic, is banned in California and elsewhere. Chloroform is also a suspected carcinogen and a cause of reproductive toxicity.

Until 1965, HCB, or hexachlorobenzene, was used as a pesticide. Production has been banned, but it is still formed as a byproduct from the production of other chemicals. A large dose can

result in death. Smaller doses can lead to liver disease and skin lesions. It bioaccumulates. The EPA has classified HCB as a probable cancer source.

Chlorobenzene is listed in CFR Title 40, 1, N, 401.15 as a Toxic Pollutant, as is benzene, carbon tetrachloride, the esters of trichloroethane, chloroform, Napthalene, esters of phthalate, PCBs, Toluene, Vinyl Chloride, Nitrobenzene, and more in the list of detected toxics uncovered in the Shaw/OHL Analytics report. Selenium was never reported in Shaw. However, it was also discovered in later excavation and testing, which shows it is certain there are other areas of the site and depths of soil containing other new chemical detections about whose presence TCEQ and City have known nothing for twenty-four years. City and TCEQ solely focused on Selenium and BPO as being the problem in clearing this site for residential uses, ignoring the presence of toxins, carcinogens and mutagens above. They have both all but ignored the presence of these other poisons on the site.

There have been obvious contradictions and discrepancies in every step of the way dealing with the known contamination of this property, extending from the years-long operation of the plant by Reichhold, to the crippling explosion there in 1985, to the EPA investigation of the site as a CERCLA/Superfund site, to its naming as a Brownfields site, to the purchase by the City, to City's lawsuit, to the multiple but abortive attempts to clean and 'close' the site, to the point City still, today, expects a new explosion and more contamination of soils to be found, for which they have set aside over a million dollars to clean up this next big one, too.



Additional PIR documents focus on storm water detention and potentials for pollution being carried off the site,

Storm water drainage is a potential double-edged sword in the case of this tract. The VOLUME of storm water run-off from a development is, normally, tightly regulated by city ordinance and state law. The storm water QUALITY when leaving the site by running off or soaking into the ground is also very strictly regulated, normally.

Multiple documents in the PIRs demonstrate that this property has had past violations with pollutants in sampled run-off reaching the Little Walnut Creek as well as other locations – channels and swales, downstream and off of the site. Quantity of run-off will be a significant issue with the huge development and density proposed on this site – 85% impervious cover.

An agreement by the Austin FC group is mentioned in the latest PIR to the City, to address difficult drainage conditions on, above and below the site. Off-site storm water flow proceeds across the existing site and makes its way under a railroad trestle/bent and ultimately into Little Walnut Creek. Site drainage criteria at City of Austin should require that, 1) the existing flow from upstream, 2) the newly generated flow from the site itself due to the 85% impervious cover proposed by the developer, and 3) other storm water in the conveyance system, all be properly handled by and through this development. This means the development cannot increase already serious downstream flooding of neighboring businesses and homes in the immediate area disclosed in examination of PIR documents. During construction, with the likelihood of turning

up more buried toxic chemicals, storm water run-off carrying toxic pollutants must be contained on site and not allowed to infiltrate into the soil to further contaminate the shallow water table, and normal erosion controls and silt fencing will have no impact on that aspect of site pollution. Inasmuch as engineering construction plans submitted to City staff were stated to have ‘many shortfalls’, and be so incomplete - in April, 2019 (see below) – that definitive statements about the efficacy of their storm water management plans are very likely premature or impossible.

The normal quantity detention/retention requirements are for the 100 year storm volume. City of Austin staffer Elizabeth Robinson made certain that other staff was aware that the development was required to provide detention for the 500 year storm, on January 29, 2019. Further, Engineer Leslie asked Guevara on January 25: “Will we require the downstream conveyance system to accommodate the 500-year storm in ROW/easements as well? The reason I ask is that ordinarily we require the 25-year in a pipe – in this case there is only the culvert underneath the RR then an open channel – and the 100-year in ROW/DE.”

Elsewhere in the PIR documents the inadequacy of the downstream railroad culvert to handle the increased volume – with downstream flooding already being experienced by local homes and businesses -- and the notorious difficulty that is encountered when asking a railroad company to alter its infrastructure to increase flood water carrying capacity, was advanced as a potential stumbling block for the development.

On April 11, 2019, CoA Daniel asked CoA Robinson: “Please stop by to look at the INCOMPLETE plans submitted for this review. **It is a waste of time to write out as many comments as are needed to address the shortfalls. These plans are supposed to be complete construction plans. They are not.**”

In staff review of the preliminary plans, on April 12, 2019 (Daniel to Robinson) Daniel noted that there were 33 PAGES of staff comments from internal reviewers in the City Development Services Department on the development submittal (eliciting an ‘Uhg!’ from Robinson), which submittal was incomplete at that time, as stated above. Daniel deleted the voluminous comments from the package before posting the plans to the Amanda system. For what reason were 33 pages of staff review comments not posted to Amanda transparency in for public review? Were Austin FC and Precourt ever made aware of the 33 pages of problems, and were they addressed and corrected by the time of the June zoning submittal? Nothing in the Site Plan File/folders indicates that they were cleared as required by ordinance.

Three months ago, on June 6, a scant 3 months from planned start of construction, city staff (Robinson to Shunk) was still trying to decide what elements of the development this drainage system covenant would have to include. On June 6, 2019, Engineer Daniel informed CBD (consulting engineering firm) that: “The lease agreement used the language ‘(a) The current 500-year design storm shall be considered in sizing the required on-site detention for the Land and Improvements’ so I would look for all drainage infrastructure on the site to accommodate the 500-year storm (in ROW/easement) and 100-year storm in the pipe (6” below the inlet), as well as for the detention pond.”

We expected we would have been provided the project's Traffic Impact Analysis, which is a requirement of the submittal and approval process, but none was found in the documents. If you have it we can review and comment on it. What information has been made available in neighborhood and community meetings can readily be shown to be unworkable with very simple math. And a dash of common sense.

If you have any questions regarding the information and commentary herein above, please don't hesitate to contact me.

Best regards,

A handwritten signature in cursive script, appearing to read "Barrett D. Allison".

Barrett D. Allison
Principal