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May 27, 2019

VIA EMAIL: letters@sltrib.com

Letters to the Editor

THE SALT LAKE TRIBUNE

90 South 400 West

Salt Lake City, UT 84101

VIA EMAIL: comments@cityweekly.net

Letters to the Editor

SALT LAKE WEEKLY

248 South Main Street

Salt Lake City, Utah 84111

Re: Letter to the Editor: The Proposed 4th Avenue Well Should Be Moved and Redesigned Sirs:

Salt Lake City Department of Public Utilities ("DPU") proposed Well at approximately 200 North Canyon Road in Salt Lake City should be moved to the May 9 open house Option 2c site in the park at State and Canyon Road (Tribune 4-30-2019) in a redesigned anti-terrorist and earthquake hardened structure. At the June 4 budget hearing the Salt Lake City Council should defer all or part of \$1.5 million in the DPU Reservoir Project 51-01301-2730.06 (about 0.8 percent of the agency's 239 million 2019-2020 budget) to the 4th Avenue Well, Project 5132268-2015-0213 in order fund the move and redesign. Alternatively, the Council should raise DPU rates by 8 mills (about \$3 dollars per year or about less than a penny a day for each its 350,000+ customers) to raise the needed funds. The DPU's May 9 concept design is a danger to the community and to first responders.

The DPU proposes to build the chlorine chemical treatment plant at level of the existing grade in the geologic streambed of City Creek Canyon. The site was underwater during the 1983 high-snowpack runoff of flooding with a peak flow of 331 cubic feet per second. The structure is vulnerable to foundation undermining, structural failure, chemical release and-or a toxic chlorine gas release from a 2,400 cubic feet per second cloudburst flood. In 1945, a cloudburst flood of that size that can down Perry's Hollow and "M" and "N" streets in 1945 and moved 300 lb boulders and grave headstones from the cemetery to South Temple (Salt Lake Telegram August 20, 1945). City Creek is at risk of a similar catastrophic cloudburst flood that destroyed downtown Farmington in 1923. During such a cloudburst flood, first residents and responders also will at risk for electrocution from the ground-level high-voltage, high-power transformers proposed for the north end of the chemical treatment plant.

The soils on which the plant is proposed to be built are susceptible to ground liquefaction and horizontal ground movements of 0.3 to 1 meters during the Wasatch Front's expected to

greater than 6.75 magnitude earthquake. The chemical plant's foundation or the outflow connections to its chlorine storage tank could fail during such an earthquake resulting in residents and first responders having to cope with both a 500 to 900 gallon chlorine spill and-or toxic chlorine gas release as they dig their neighbors out from underneath their homes.

Finally, the concept chemical plant design is susceptible to a simple terrorist attack. A would-be terrorist could simply fill a van with several hundred gallons of chemicals easily purchased at a supermarket and janitorial supply stores. Breaching the chemical plant door and then setting off a hand-grenade sized explosive charge would mix the chemical with the liquid chlorine stored in the structure and release a sizeable cloud of chlorine and chloramine gas. City Creek Canyon's winds would then blow the resulting cloud across the Church Office building and into the central business district that is populated with 48,000 to 70,000 daily residents and visitors.

Our able DPU Director Briefer proposes the chemical plant 4th Avenue and Canyon Road out of a desire to conserve public funds. But sometimes engineers get fixated on economic efficiency. That is when citizen oversight, in form of our City Council, needs to step in at the June 4th budget hearing, to reallocating funding, and to formally condition the chemical plant's budget authorization on moving the well to the Option 2c site at the State Street Park in a more flood, earthquake and terrorist resistant design.

Very Truly Yours

Kurt A. Fisher

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cc: Emma L. Penrod. Freelance Journalist. REDACTED

P.S. – I have written several comments on the 4^{th} Avenue Chemical Plant that provide back matter for the claims made in this letter to the editor. The comments also contain supporting photographic images. Those documents can be accessed through the following urls:

Comment to DPU on Flooding Risk:

 $\underline{http://fisherka.csolutionshosting.net/misc/FourthAveWell/20190525WellCommentFloodingFinalRed\ acted.pdf}$

Comment to DPU on Earthquake Risk and Proposed Alternative Anti-Terrorist Resilient Design and Alternative Siting:

 $\underline{http://fisherka.csolutionshosting.net/misc/FourthAveWell/20190524WellCommentSeismicRedacted.p} \ \underline{df}$

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Supplemental Comment to DPU on Earthquake Risk and Liquefaction:

 $\underline{http://fisherka.csolutionshosting.net/misc/FourthAveWell/20190526WellCommentSeismicSecondRe}\\ \underline{dacted.pdf}$

Comment to DPU on Terrorist Attack Risk:

 $\underline{\text{http://fisherka.csolutionshosting.net/misc/FourthAveWell/20190522Well4CommentFinalRedacted.pd} \ \underline{f}$

This document can be accessed in pdf letter format through url:

 $\underline{http://fisherka.csolutionshosting.net/misc/FourthAveWell/20190527WellLettertoEditorsFinalRedacte} \\ \underline{d.pdf}$