

MEMORANDUM

TO: CPEO
FROM: Peter Strauss
DATE: February 9, 2017
SUBJ: **New Time-Critical Removal Action at 277 Fairchild Drive, Mountain View, California**

Summary

The 277 Fairchild Drive site is a redevelopment site where the buildings were demolished. A proposed plan to mitigate vapor intrusion was approved by U.S. EPA. However, after further testing of contamination in the soil and soil gas, the EPA has decided that additional work must be done to reduce the levels of trichloroethylene (TCE) in the soil gas, delaying the beginning of construction at the site. EPA is holding a community meeting to discuss the status of this construction project on Saturday, February 11, 2017 at the Middlefield Meadows Community Room, 114 Flynn Avenue, at 1 PM. The remediation issues for this site are explained in more detail below.



Background

In 2014, Warmington Residential notified EPA of its plans to redevelop the 277 Fairchild Drive site for residential housing. The site is part of the Middlefield-Ellis-Whisman (MEW) Superfund Vapor Intrusion (VI) Study Area, within its new section, Operational Unit 3 (OU3). It is subject to the remedial action requirements set forth in the 2010 Vapor Intrusion Record of Decision (ROD) Amendment as well as other, earlier documents. The site was previously occupied by two single-family homes, two multi-family residences, and a small convenience store. Warmington's redevelopment plan includes four single-family homes and four multi-unit structures. EPA and the City of Mountain View have coordinated this project through planning, design, and permitting stages. Now that the old structures have been demolished, the project is awaiting final approval from EPA.

Because the site must meet the remedial action requirements of the ROD Amendment, the consulting firm Haley & Aldrich, representing the MEW Responsible Parties, proposed a remedial design that includes a sub-slab depressurization (SSD) system. The system would be active—that is, it would use mechanical fans to maintain a negative pressure beneath the structures and draw down vapors so subsurface contamination does not intrude into living spaces. The vapors would be conveyed to an effluent pipe and treated with Granular Activated Charcoal filters. Treated air from the all of buildings would be discharged through vertical stacks at two locations. Raytheon and Schlumberger, two of the main MEW Responsible Parties, have agreed to pay for this, as well as the installation of an additional groundwater extraction well. In April 2016, EPA approved this plan.

Additional Remediation

After soil and soil-gas data were collected in August 2016, EPA decided that TCE soil-gas levels were too high to proceed with construction. EPA has advised the parties that a Time-Critical Removal Action (TCRA) is necessary to remove some of the highly contaminated soil gas and groundwater at the site. EPA has advised the parties that it is developing a soil-gas removal action standard for TCE.

Options include additional soil vapor extraction, or less likely, soil excavation. EPA is still developing a plan. Thus, the discussion that follows is based on my conversations with the EPA project manager, as well as a letter sent to EPA by Raytheon's and Schlumberger's legal representative and an attached Technical Memorandum by Geosyntec, their principal remediation consultant. However, it should be noted that the City of Mountain View's approval for this project is conditioned upon the fact that the vapor intrusion control systems will be designed to reduce health risks to less-than-significant levels and be subject to EPA approval.¹

EPA has also determined that groundwater emanating from the south of the site, attributed to old sewer line releases along Evandale Avenue, should be remediated. Apparently, conversations between EPA and Geosyntec have suggested the following options: installation of a permeable reactive barrier wall, in-situ bioremediation, and/or an additional extraction well to contain the plume.

¹ Initial Study and Mitigated Negative Declaration, 277 Fairchild Drive Residential Project, April 2015

The parties responsible for the MEW cleanup question whether the extra cleanup is required because they believe that the proposed mitigation is sufficient to comply with the Vapor Intrusion ROD Amendment. They have made several legal arguments challenging the authority and applicability of a TCRA, upon which I will not comment. Though they believe the planned mitigation will be protective, they have suggested alternate engineering options should EPA insist on further risk reduction.. These include an aerated floor system (which has already been approved by EPA elsewhere in the MEW VI Study Area); a positive pressure system placed above the vapor barrier and the SSD; and real-time pressure monitoring. Note that the aerated floor would change the already approved design of the structures.

The parties also disagree with EPA's "potential" addition, through the proposed TCRA, to the groundwater remedy for the site. Since the removal action is not yet written, and EPA only offered suggestions at a meeting with Geosyntec, this will be subject to a later memo. However, additional groundwater remediation is one of the objectives in the VI ROD Amendment, and we are still waiting for a site-wide focused feasibility study addressing groundwater contamination, which at this time is the principal source of soil-gas and indoor air contamination. EPA is going to require some sort of additional groundwater remediation for the site, whether part of the TCRA or an additional remedial action.

The MEW companies have not accepted responsibility for a portion of this site, but thus far they have paid for pilot studies and the installation of a single extraction well, as well as the mitigation under the ROD Amendment. I believe that the two MEW parties (Raytheon and Schlumberger) are willing to pay for the additional engineering controls described above, but thus far they have shown little interest in the site-wide focused feasibility study for groundwater.

Meanwhile, the property owner (Warmington Residential) is seeking a Bona Fide Prospective Purchaser (BFPP) Agreement for this site. Such agreements minimize the responsibility and liability of property owners who have not caused or contributed to contamination. To be granted BFPP status, the property owner must perform "all appropriate inquiries"—an environmental site assessment—prior to acquiring the property, and demonstrate "no affiliation" with a liable party. Warmington has done both. Additionally it must comply with land-use restrictions, take "reasonable steps" to manage hazardous substances, and grant access to the property as needed.

EPA will discuss the status of the 277 Fairchild property at the February 11 community meeting. It is also likely that it will touch on the TCRA and groundwater remediation status at the site.