

**From:** May, Michael  
**Sent:** Friday, September 30, 2011 9:33 AM  
**To:** Murphy, Brad; Heikkinen, Tom  
**Cc:** Crawley, Katie; Monks, Anne; Noonan, Katherine  
**Subject:** FW: Vapor intrusion study prior to development in WHPA (Zone A) Madison Well #14

Folks:

I'm not sure to whom I should forward this, so I'm starting with you.

Mike

MPMay  
City Attorney  
Madison, Wisconsin

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**From:** Michael Kienitz [mailto:photo4u@michaelkienitz.com]  
**Sent:** Friday, September 30, 2011 9:24 AM  
**To:** dennis iverson  
**Cc:** mark.giesfeldt@wisconsin.gov; Kimberlee Wright; May, Michael  
**Subject:** Vapor intrusion study prior to development in WHPA (Zone A) Madison Well #14

9/29/2011

Dennis L. Iverson P.E.  
Ivertech LLC  
Madison, WI

Re: University Crossing Development, Madison, WI Vapor Intrusion testing

Dennis, Thanks for your detailed and timely response.

I agree that there are no zoning issues with regard to the WHPA Zone A at the proposed University Crossing development in Madison, WI.

However there is a reason why well #14 is monitored quarterly and the vast majority of the wells in the city are not. There are 5 wells which are monitored quarterly in Madison. Well #14 is monitored quarterly because the WDNR requires it due to the existence of PCE. There is also TCE present, the EPA yesterday released new information about TCE and will be adopting a new higher safety standard for it. Here is a portion of the press release from the EPA:  
TCE toxicity values as reported in the assessment will be considered in:

- Establishing cleanup methods at the 761 Superfund sites where TCE has been identified as a contaminant
- Understanding the risk from vapor intrusion as TCE vapors move from contaminated groundwater and soil into the indoor air of overlying buildings
- Revising EPA's Maximum Contaminant Level for TCE as part of the carcinogenic volatile organic compounds group in drinking water, as described in the agency's drinking water strategy

- Developing appropriate regulatory standards limiting the atmospheric emissions of TCE – a hazardous air pollutant under the Clean Air Act

As previously mentioned 250 gallons of diesel fuel was spilled on the site I only reference the spill as a factor which could be used when considering whether or not a vapor intrusion study is warranted. The 250 gallons of fuel was spilled within the WHPA Zone A. I did not mean to infer that it was the sole reason for a vapor intrusion study. I believe as many as 4 fires have taken place within the WHPA Zone A, that is another potential source of contaminants to be considered along with the vague information regarding how many UST's and possibly LUST's may be found during demolition and construction. In other words because of known and unknown environmental factors and the proximity to a public drinking water supply (the entire 14.5 acre development is within the WHPA Zone A) it could be argued by a reasonable person that a vapor intrusion study is warranted.

According to our consultant who is a hydrogeologist and has worked on many sites doing remediation for the department of commerce additional assessment of soil and groundwater conditions should be conducted prior to development of the University Crossing. At a minimum, soil and groundwater samples should be collected at depths to groundwater, and that chemical analysis include volatile organic compounds, semi-volatile organics and organics, including pentachlorophenol (PCP). One of the fires was at the Fitzpatrick Lumber Yard directly adjacent to the proposed site. The other fire on the site itself was known to involve solvents and wood preservatives and refinishing materials some C6 experts believe the extensive use of wood preservatives could be responsible in part in for the elevated C6 levels. A study is currently being undertaken by the Madison Water Utility to see if the elevated C6 is a natural or man made occurrence. The recent readings indicate chromium 6 is close to 2.00 ppb while the recently advanced public goal for chromium 6 in the State of California is 0.02 ppb. While what is being considered "safe" is still being debated the current readings should be of concern to us according to a UW Environmental Engineer with an area of expertise in chromium 6

I am familiar with the technical document you cite with regard to vapor intrusion however are you familiar with the following passage which appears on the DNR's website?

"If it is determined that there is potential for vapor intrusion into occupied or proposed building locations, NR 716.05(1) requires the vapor migration pathway be investigated as part of site investigation activities." Experts I have consulted with, believe such a "potential" exists at this site or that at least an examination of its possible existence is warranted because of the factors cited above.

Nationwide, volatile organic contaminants in subsurface soil and groundwater are a recognized problem. Often, this contamination exists beneath occupied lands. Indoor air contaminant levels may be significant enough at sites with subsurface contamination to cause immediate regulatory action in some cases and drive remediation in others.

I am emailing this to the official you cite (Mark Giesfeldt) and would like a more detailed explanation which I can add to the public record as to why they feel no potential exists for vapor migration absent any scientific evidence or investigation proving the contrary. Regardless of whether or not this is "an open site" the fact that the drinking water for over 17,000 people in Madison is drawn daily from directly beneath the proposed development (University Crossing) merits more than the usual scrutiny for the sake of public health and safety. It should also be noted that this well is cased to a depth of merely 117.45 ft despite the wells total depth being 715

feet this of course means contaminants could reach the water supply more easily than a more modern well which is deeply cased.

A prudent approach should be taken since environmental harm may be severe, long lived and essentially irreparable. In closing I would like to include two quotes the first to Mr. Giesfeldt from the EPA on Dec. 11th 2001 which seems to underscore some of the above points I've made. "Moreover, cleanups at corrective action sites where Wisconsin utilizes its enforcement discretion must still result in cleanups that are protective of human health and the environment, and which are carried out in a manner consistent with the corrective action requirements of the Resource Conservation and Recovery Act (RCRA)." The second quote is from the spokesperson (John Snowden) for the current owners of the property in an email to Linda S. Hanefeld at the WDNR dated August 8th 2011, "Prior to us submitting the phase 1 and 2 for your review, I remember that we heard of a DNR program that - in a nutshell - limited an owners liability provided an owner performed investigations or cleaned the site to a certain DNR Standard. Could you please let me know again what that program is and how we participate in that program?"

With the property sale pending for this development why is the property owner's spokesperson expressing concern about their liability if the site "is clean" as Mr. Lenhart has publicly alleged on numerous occasions at neighborhood meetings and with city of Madison staff?

I appreciate once again this continued dialog.

Sincerely Michael Kienitz

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On Sep 26, 2011, at 5:25 PM, dennis iverson wrote:

Michael,

Per request from Paul Lenhart, I am responding to your email request below....with the exception of stormwater issues and the reuse and recycling issue, which Dan Day is a much better resource than me on those issues.

Regarding Item 2...I am not aware of any notice from the Madison Water Utility of any violations of their zoning requirements associated with the proposed development.

With respect to sampling the well for VOC, the Wellhead Protection Plan notes that "each of the City of Madison's supply wells are testing annually...." noting that VOC are tested annually or quarterly on all City wells, with the frequency depending on the well...As such, it is doubtful that the rationale for testing quarterly at Well NO. 14 for VOC was because of a 250 gallon diesel fuel spill you reference...Further, there are few parameters, other than perhaps naphthalene, that may be indicative of diesel fuel in the VOC test.....more likely, one would probably test for DRO or PAHs if the well owners were concerned with diesel fuel. Diesel fuel is generally viewed as a semi volatile organic where VOC (volatile organic chemicals) are generally associated with lighter, more volatile fraction of the distillation column, more like gasoline or chlorinated organics, such as solvents. In general, diesel and fuel oil are much less mobile than VOC in the soil and groundwater environment, hence a greater concern with VOC.

With regard to the vapor migration issue, I reference a letter I received from Mark Giesfeldt, DNR director of Remediation and Redevelopment (see Attached) indicating that vapor migration investigation activity should be included in the investigation for all "open" sites. There is no "open site" at the Property. As such there is no requirement to conduct this vapor migration testing.. In addition, it references a technical guidance document prepared by the DNR about a year ago on how to conduct such investigation work for vapor migration. I am familiar with the guidance document and have used it to assess properties with volatile organic contamination. In general, the document focuses on VOC migration and has limited discussion of semi volatile organics, such as diesel fuel and fuel oil, simply because, I would expect, semi volatiles, by their very nature, are less of a threat, This is because, as stated above, they are less volatile and thus less likely to migrate in soil pores than lighter, more volatile, VOCs.

While I have limited information on the spill you reference, it likely occurred above grade. As such, there is a reduced risk when compared to a spill from an underground tank as the volatile fraction would likely release to the air rather than soil pores. I see limited reason to recommend any vapor migration work based on what I have seen and reviewed on this site.

As we have repeatedly stated, the construction specification will include language on how to respond to the discovery of petroleum impacted soil, storage tanks, etc as part of redevelopment. The response activity will be conducted in accordance with DNR regulations to include reporting to the DNR if a release is noted. Being a public program, the information will be available for public consumption as the sites and activities are posted on the DNR website.

I trust this addresses your concerns.

Regards,

Dennis

----- Original Message -----

**From:** [Paul Lenhart](mailto:Paul.Lenhart@charter.net)  
**To:** [ddiverson@charter.net](mailto:ddiverson@charter.net)  
**Cc:** [dday@donofrio.cc](mailto:dday@donofrio.cc)  
**Sent:** Monday, September 26, 2011 11:51 AM  
**Subject:** FW: Vapor intrusion study?

Dennis,

Please read and respond to Mr. Kienitz.

**Paul Lenhart**

**President**  
**Krupp General Contractors, LLC**  
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<image001.jpg>



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**From:** Michael Kienitz [mailto:[photo4u@michaelkienitz.com](mailto:photo4u@michaelkienitz.com)]  
**Sent:** Monday, September 26, 2011 11:48 AM  
**To:** Paul Lenhart; Dan Day  
**Cc:** Linda S - DNR Hanefeld; Lori Huntoon  
**Subject:** Vapor intrusion study?

I note you have included in a recent public document:

"Storm Water Management requirements

1. Site meets regulatory requirements for City of Madison and DNR regulations
2. Site design meets regulations for Well Head Protection zoning"

Madison Municipal Well 14# is monitored quarterly for elevated VOC's for various reasons including a 250 gallon diesel spill on the proposed University Crossing building site since there is a potential for vapor intrusion into occupied or proposed building locations, NR 716.05(1) requires the vapor migration pathway be investigated as part of site investigation activities. Can you provide me with the documentation that a vapor migration study has been done?

Having read the the EIS 1 revised EIS 1 and EIS 2 this appears to have never been done. Can you provide me with the documentation that this has been done?

On another matter has the University Crossing reuse and recycling plan been submitted by you to the City of Madison yet?

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