



December 2, 2020

Occupants of Commercial Square Apartments  
1015 and 1019 South Commercial Street  
Neenah, WI 54956

Subject: Air Sampling Results for 1015/1019 South Commercial Street  
- Contaminants Detected **Below** DNR Screening Levels  
DNR Site Name: Donaldson's One Hour Cleaners (Former), 110 West Cecil St., Neenah, WI  
DNR BRRTS # 02-71-110797

Dear Neighbor,

Included are the findings of a recent investigation at 1015 (Apartments #6 and #7) and 1019 (Apartments #7 and #9) South Commercial Street in Neenah, Wisconsin by the Department of Natural Resources (DNR).

### **Summary**

No contaminants were detected in indoor air. Contaminants were detected beneath the foundation at levels that do not pose a threat to building occupants. Sampling will be repeated this winter to confirm results.

### **Sampling Effort**

As you are aware, this investigation was conducted because of the potential for chemical vapors from the nearby Donaldson's One Hour Cleaners (Former) site, identified above, to migrate through soil and groundwater, accumulate beneath the foundation of the apartment complex, and possibly enter the indoor air of your apartments. The contaminant of concern at the Donaldson's One Hour Cleaners (Former) site is the chlorinated volatile organic compound, tetrachloroethylene ("PCE").

The history of this site and the potential concerns to neighboring residents were described in detail in the original letter sent to you on October 7, 2020 with informational fact sheets. You can access the two-page letter with enclosures and more on our database on the internet at:

<https://dnr.wi.gov/botw/SetUpBasicSearchForm.do>.

- Enter "0271110797" in the Activity Number field and click on "Search".
- Scroll down to the date "2020-10-07".
- Click on the link to "20201007\_99\_VI\_intro\_Ltr.pdf" (must have Adobe Reader to view).

On November 9<sup>th</sup> and 10<sup>th</sup>, an environmental consultant hired by DNR installed sampling devices into the floor of the foundation and collected soil vapor samples as well as indoor air samples and an outdoor air sample. Sample locations were selected based on proximity to known contamination in groundwater. The samples were then submitted to ALS Environmental, where it underwent laboratory analysis for PCE, and the related chemical breakdown products trichloroethylene ("TCE"), cis-1,2-dichloroethylene ("cis-1,2-DCE"), trans-1,2-DCE and vinyl chloride.

Please note that 1015, Apartment #7 was not accessible on November 9<sup>th</sup> and 10<sup>th</sup> and was later sampled on November 30<sup>th</sup> and December 1<sup>st</sup>. Results will be shared when received.

### Test Results

Enclosed are two tables titled *Air Data for Chemicals Sampled at Commercial Square Apartments, 1015/1019 S. Commercial St., Neenah, WI* for the outdoor air / indoor air and sub-slab vapor (i.e., beneath the foundation) samples. The results show that a small amount of PCE, TCE and cis-1,2-DCE were detected in the samples taken from beneath the foundation (highlighted green) but not detected in indoor air for the 11/10/2020 sampling event. Although PCE, TCE and cis-1,2-DCE were detected in soil vapors beneath the foundation floor, the level at which they were detected are such that it does not pose a health concern to the building occupants. This is called "a detection below screening level" and is explained in the enclosed fact sheet, *Understanding Chemical Vapor Testing Results, RR-977*.

The fourth sampling location, 1015, Apartment #7, was sampled on November 30<sup>th</sup> and December 1<sup>st</sup> as stated above. There is a place holder on the data tables for this data. An updated data table will be sent when the data is received in a couple weeks.

There does not appear to be a risk of PCE vapor or the breakdown products entering the apartments from beneath the foundation based on the 11/10/2020 sampling event. Additional sampling needs to be conducted in order to confirm these results. EnviroForensics will contact building occupants as previously done to collect air samples at the same locations this winter.

Thank you for your continued patience and cooperation with this investigation. Please contact me if you have questions regarding the environmental investigation, how to access the database on the internet or need an update on our progress. Please direct any health-related questions to Doug Gieryn, Winnebago County Health, at (920) 232-3029 or Amanda Koch, Department of Health Services, at (608) 267-2487.

Sincerely,



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Encl. Air Data for Chemicals Sampled at Commercial Square Apartments, 1015/1019 S. Commercial St., Neenah, WI  
Understanding Chemical Vapor Testing Results, RR-977

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**Air Data for Chemicals Sampled at**

**Commercial Square Apartments, 1015/1019 S. Commercial St., Neenah, WI**

DNR Site Name: Donaldson's One Hour Cleaners, 110 W. Cecil St., Neenah, WI

BRRTS # 02-71-110797

| (All data units in µg/m3)        | Air concentrations on 11/10/2020 | Air concentrations on 12/1/2020 | Comparison Vapor Action Level (Residential) |
|----------------------------------|----------------------------------|---------------------------------|---|
| <b>Contaminant</b>               |                                  |                                 |   |
| <b>Outdoor Air</b>               |                                  |                                 |   |
| PCE                              | No Detect                        | Pending                         | 42  |
| TCE                              | No Detect                        | Pending                         | 2.1   |
| cis-1,2-DCE                      | No Detect                        | Pending                         | No VAL                                      |
| trans-1,2-DCE                    | No Detect                        | Pending                         | No VAL                                      |
| <b>1015 - Apt 6 - Indoor Air</b> |                                  |                                 |   |
| PCE                              | No Detect                        | Not Sampled                     | 42  |
| TCE                              | No Detect                        | Not Sampled                     | 2.1   |
| cis-1,2-DCE                      | No Detect                        | Not Sampled                     | No VAL                                      |
| trans-1,2-DCE                    | No Detect                        | Not Sampled                     | No VAL                                      |
| <b>1015 - Apt 7 Indoor Air</b>   |                                  |                                 |   |
| PCE                              | Not Sampled                      | Pending                         | 42  |
| TCE                              | Not Sampled                      | Pending                         | 2.1   |
| cis-1,2-DCE                      | Not Sampled                      | Pending                         | No VAL                                      |
| trans-1,2-DCE                    | Not Sampled                      | Pending                         | No VAL                                      |
| <b>1019 - Apt 7 - Indoor Air</b> |                                  |                                 |   |
| PCE                              | No Detect                        | Not Sampled                     | 42  |
| TCE                              | No Detect                        | Not Sampled                     | 2.1   |
| cis-1,2-DCE                      | No Detect                        | Not Sampled                     | No VAL                                      |
| trans-1,2-DCE                    | No Detect                        | Not Sampled                     | No VAL                                      |
| <b>1019 - Apt 9 - Indoor Air</b> |                                  |                                 |   |
| PCE                              | No Detect                        | Not Sampled                     | 42  |
| TCE                              | No Detect                        | Not Sampled                     | 2.1   |
| cis-1,2-DCE                      | No Detect                        | Not Sampled                     | No VAL                                      |
| trans-1,2-DCE                    | No Detect                        | Not Sampled                     | No VAL                                      |

**Notes:**

Detect below Vapor Action Level

**Detect above Vapor Action Level (bolded)**

cis-1,2-DCE = cis-1,2-dichloroethylene

PCE = Tetrachloroethylene

TCE = Trichloroethylene

trans-1,2-DCE = trans-1,2-dichloroethylene

VAL = Vapor Action Level

µg/m3 = micrograms per cubic meter

**Air Data for Chemicals Sampled at**

**Commercial Square Apartments, 1015/1019 S. Commercial St., Neenah, WI**

DNR Site Name: Donaldson's One Hour Cleaners, 110 W. Cecil St., Neenah, WI

BRRTS # 02-71-110797

| (All data units in µg/m3) | Air concentrations on 11/10/2020 | Air concentrations on 12/1/2020 | Comparison Vapor Risk Screening Level (Residential) |
|---------------------------|----------------------------------|---------------------------------|---|
| <b>Contaminant</b>        |                                  |                                 |   |
| <b>1015 - Apt 6 - SSV</b> |                                  |                                 |   |
| PCE                       | 16.7                             | Not Sampled                     | 1,400   |
| TCE                       | No Detect                        | Not Sampled                     | 70  |
| cis-1,2-DCE               | No Detect                        | Not Sampled                     | No VRSL   |
| trans-1,2-DCE             | No Detect                        | Not Sampled                     | No VRSL   |
| <b>1015 - Apt 7 - SSV</b> |                                  |                                 |   |
| PCE                       | Not Sampled                      | Pending                         | 1,400   |
| TCE                       | Not Sampled                      | Pending                         | 70  |
| cis-1,2-DCE               | Not Sampled                      | Pending                         | No VRSL   |
| trans-1,2-DCE             | Not Sampled                      | Pending                         | No VRSL   |
| <b>1019 - Apt 7 - SSV</b> |                                  |                                 |   |
| PCE                       | 55                               | Not Sampled                     | 1,400   |
| TCE                       | 2                                | Not Sampled                     | 70  |
| cis-1,2-DCE               | 2.18                             | Not Sampled                     | No VRSL   |
| trans-1,2-DCE             | No Detect                        | Not Sampled                     | No VRSL   |
| <b>1019 - Apt 9 - SSV</b> |                                  |                                 |   |
| PCE                       | 29                               | Not Sampled                     | 1,400   |
| TCE                       | 1.13                             | Not Sampled                     | 70  |
| cis-1,2-DCE               | No Detect                        | Not Sampled                     | No VRSL   |
| trans-1,2-DCE             | No Detect                        | Not Sampled                     | No VRSL   |

**Notes:**

Detect below Vapor Risk Screening Level

**Detect above Vapor Risk Screening Level (bolded)**

cis-1,2-DCE = cis-1,2-dichloroethylene

PCE = Tetrachloroethylene

SSV = Sub-slab vapor

TCE = Trichloroethylene

trans-1,2-DCE = trans-1,2-dichloroethylene

VRSL = Vapor Risk Screening Level

µg/m3 = micrograms per cubic meter



# Understanding Chemical Vapor Intrusion Testing Results

RR-977

October 2014

## From the Lab to You

Chemical vapor samples were taken from underneath your house or building and possibly indoors as well. These samples have been tested by a certified laboratory and a report was issued. The Wisconsin Department of Natural Resources (DNR) uses these test results to determine if people in the building are being exposed to chemical vapors coming from nearby contaminated soil or groundwater, and to decide what, if any, action is needed to prevent this exposure.

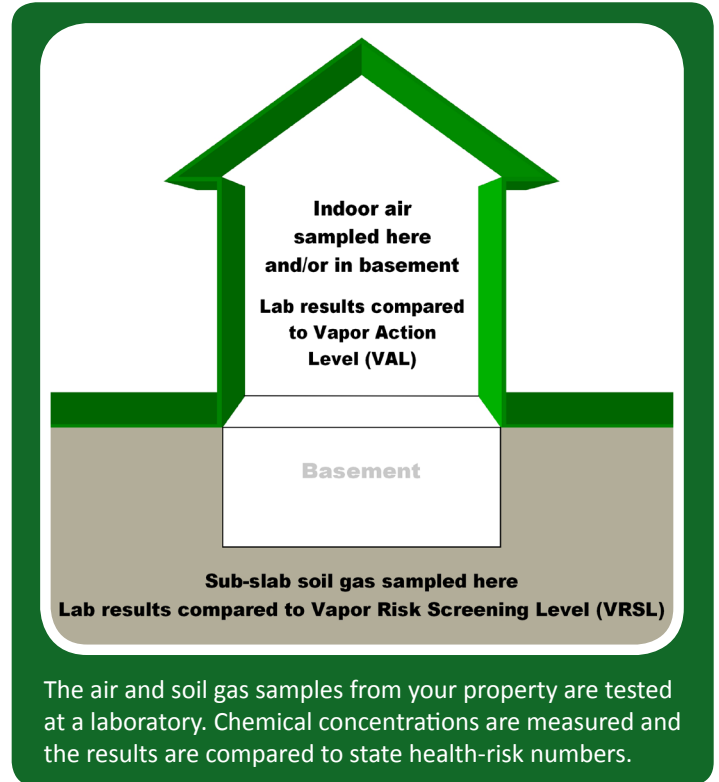
## Indoor Air Testing Results

If indoor air samples were collected in your house or building, test results from the lab will be compared to the state Vapor Action Level (VAL) for chemicals of concern. The VAL is a chemical compound's numerical value that represents a health hazard risk to no more than 1 in 100,000 people during a lifetime of exposure. If test results show chemical concentrations in your air below the VAL then adverse health effects are extremely rare, even if you were to breathe the chemical at this concentration for your entire life.

Test results showing chemical concentrations in the air at or above the VAL prompt DNR to recommend that exposure to these chemical vapors be reduced. If test results show concentrations significantly above the VAL, or more than one type of chemical vapor is identified in your indoor air, the risk from exposure increases. If the concentration of any indoor chemical vapor greatly exceeds the VAL, DNR is concerned about even short-term exposure and will typically require immediate action to address the problem.

The VAL for each chemical is set by scientific research. It is protective of all people, including those who are most susceptible to adverse health effects.

If test results identify chemicals in your air that are not present in nearby soil or groundwater contamination, it is likely that these vapors are coming from some product or activity in or near your house or building. Many everyday consumer products (e.g., cleaners, solvents, polish, adhesives, lubricants, aerosols, insect repellants, etc.); combustion processes (e.g., smoking, home heating); fuels in attached garages; dry cleaned clothing or draperies; and occupant activities (e.g., craft hobbies), also release chemical vapors into the air.



The air and soil gas samples from your property are tested at a laboratory. Chemical concentrations are measured and the results are compared to state health-risk numbers.

## Sub-slab Soil Gas Testing Results

Soil gas samples were collected from the ground beneath the concrete slab of your building foundation or basement. The lab measured the concentrations of various chemicals in these samples. DNR compares these measurements to the state Vapor Risk Screening Level (VRSL), which identifies the concentration of a chemical in soil gas that scientific research suggests can be a health risk if vapor enters a building. If soil gas measurements exceed the VRSL for a chemical of concern, action to reduce exposure is strongly recommended.

The VRSL is a higher number (higher chemical concentration) than the VAL because it is presumed that concrete building foundations and basement walls will prevent most soil gas from entering a building. Further, any soil gas that does enter a building through cracks, holes, sump pumps, drains, etc., will be diluted to some extent by the indoor air. So, people inside will not be breathing air that includes the full concentration of chemical vapors that exist in the ground.



Wisconsin Department of Natural Resources  
P.O. Box 7921, Madison, WI 53707  
dnr.wi.gov, search "Brownfields"



DNR generally relies on the test results of the sub-slab soil gas samples when determining what, if any, action should be taken related to chemical vapors coming from nearby soil or groundwater contamination. Indoor air quality is highly variable, and it is difficult to make a definitive decision about vapor intrusion based on indoor air sampling alone.

### Follow-Up Actions

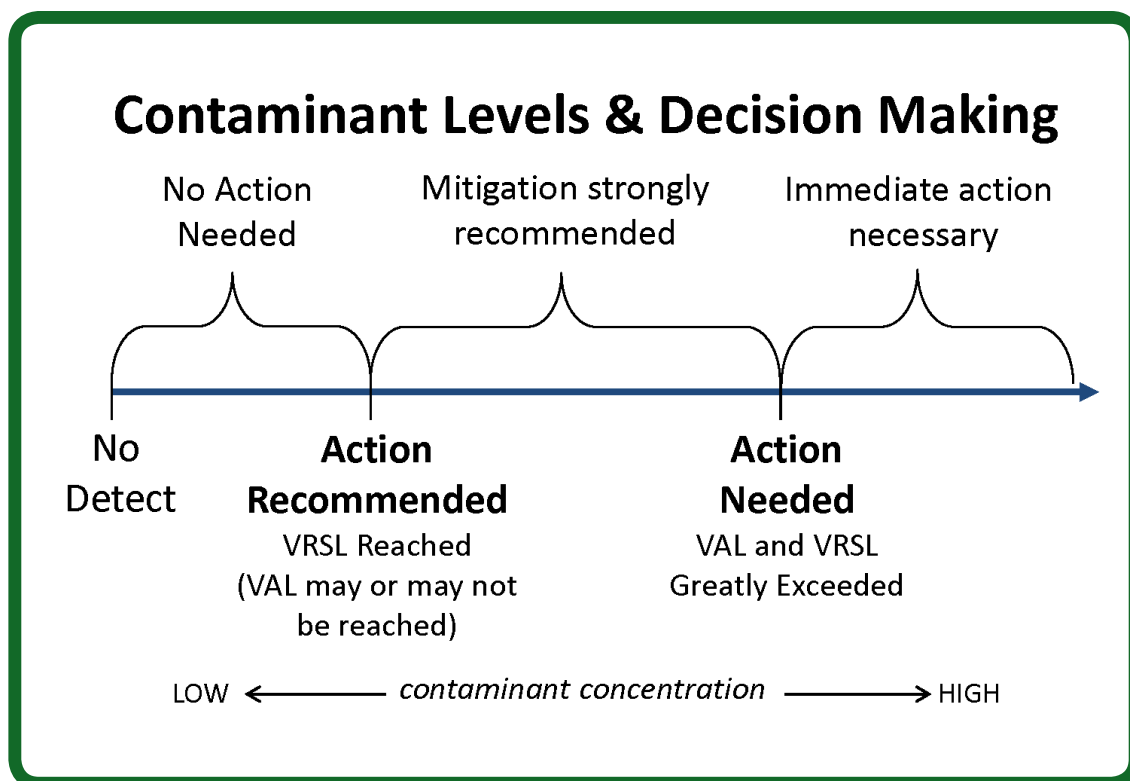
If your test results are less than a VAL for indoor air, or a VRSL for sub-slab soil gas, then the air in the house or building should not present a health concern. Follow-up sampling and testing may be necessary to confirm the results, but no other action is typically suggested.

When test results show soil gas chemical concentrations above a VRSL, both DNR and the Wisconsin Department of

Health Services recommend that owners take action to reduce potential exposure. This typically involves installing a vapor mitigation system that vents chemical vapors from beneath your home or building to the outdoors, similar to a radon mitigation system.

If indoor air concentrations exceed a VAL, but sub-slab concentrations are less than a VRSL, then the chemical vapors are most likely coming from indoor sources. Steps should be taken by the house or building owner to identify the products and practices causing the problem and implement appropriate remedies.

If soil gas mitigation is recommended, a representative of the party who is responsible for the soil or groundwater contamination will contact you to discuss your options.



**A Note about Measurement Units:** The lab report may include some unfamiliar technical language. The most important point to note is whether or not the test result for a specific chemical exceeds a VAL or VRSL, which are also sometimes referred to, generically, as “screening levels.”

The concentration of gaseous pollutants in air is typically described in two different ways: 1) as units of mass per volume, where  $\mu\text{g}/\text{m}^3$  represents micrograms of gaseous pollutant per cubic meter of ambient air; and 2) as parts per billion by volume (ppbv), where the volume of a gaseous pollutant is compared to a set volume of ambient air. These are the numbers that are compared to the VAL and VRSL.

For more information, visit [dnr.wi.gov/topic/Brownfields/Vapor.html](http://dnr.wi.gov/topic/Brownfields/Vapor.html)