

# State and Local Partnerships at Child Care Facilities on Vapor Intrusion – Testing & Notification

Indoor Environments 2024 Radon & Vapor Intrusion Symposium

September 16, 2024

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## Historical Dry Cleaners in Milwaukee, WI

- Approximately 1,300 historical dry cleaner locations in Milwaukee
- Concern for repurpose, including child care facilities





# Former One Hour Martinizing

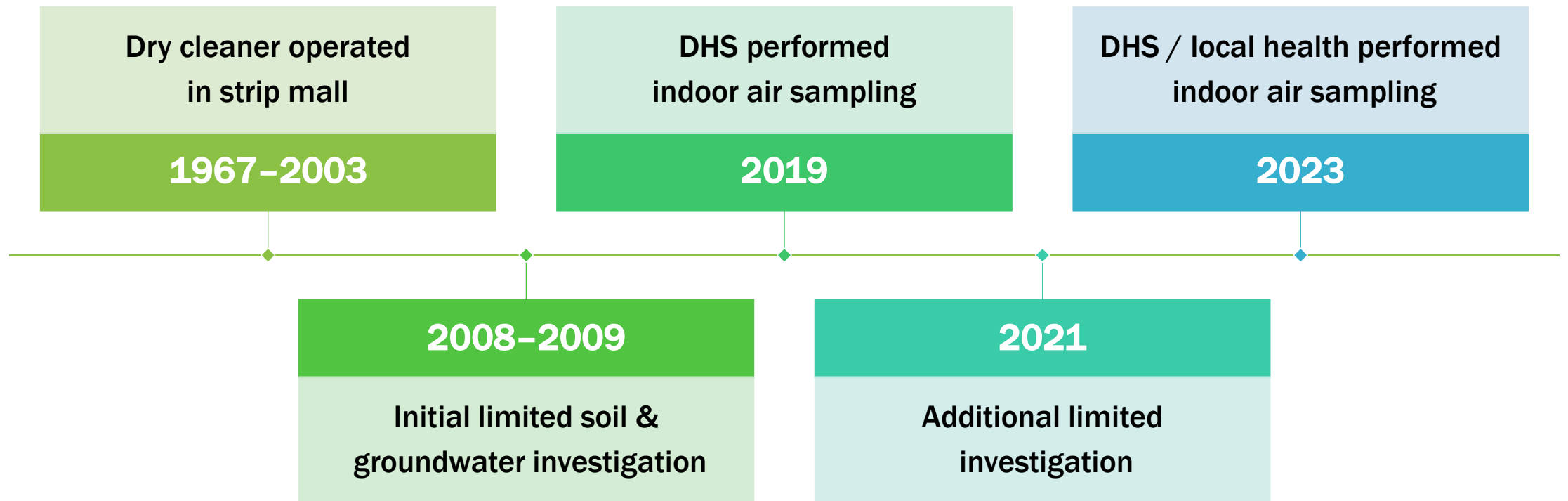
**Former dry cleaner unit**



**Adjacent child care use**



# Former One Hour Martinizing Timeline



DHS = Wisconsin Department of Health Services

# Former One Hour Martinizing

Media	Year	Units	PCE	Standard or Screening Level (Residential / Small Commercial)
Soil	2008	µg/kg	<b>5,640,000</b>	4.5
Groundwater	2009	µg/L	<b>218,000</b>	5
Indoor Air (DC)*	2019	µg/m <sup>3</sup>	<b>59</b>	42 / 180
Sub-Slab Vapor	2021	µg/m <sup>3</sup>	<b>29,000</b>	1,400 / 5,800
Indoor Air (other units)*	2023	µg/m <sup>3</sup>	3.2	42 / 180

**BOLD** = Exceed Standard or Screening Level

\*Sampled by DHS in former dry cleaner unit

µg/kg = micrograms per kilogram

µg/L = micrograms per liter

µg/m<sup>3</sup> = micrograms per cubic meter

PCE = Tetrachloroethene

Geology: Clay with sand & some cobbles

Depth to groundwater: 6.4 – 14 feet below  
ground surface

# Department of Children & Families Authority with Radon



- Jan 2024 – DHS initiated conversation with
  - Milwaukee Health Department (MHD),
  - Wisconsin Department of Children & Families (DCF) and
  - DNR
- DCF → requires child care facilities to test for radon & report results
  - If radon > 4 pCi/L, notify parents/legal guardians & mitigate
- Concern with authority for parent/legal guardian notifications on vapor intrusion (VI)

pCi/L = picocuries per liter

# Agency Authorities

## DCF:

- No authority to require notification to parents on VI, even if indoor air impacted
- No authority to require child care provider to mitigate VI

## DHS:

- No authority to require notification to parents on VI

## DNR:

- Authority to require *responsible party* notify “occupants” of test results
- Authority to require *responsible party* to mitigate for vapors

## DCF, DHS & MHD:

- Could jointly support the DNR in *recommendation* for child care provider to notify parents & mitigate if no action by responsible party

# Former One Hour Martinizing

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→ Sub-Slab Vapor	2024	µg/m <sup>3</sup>	<b>18,800</b>	1,400 / 5,800

**BOLD** = Exceed Standard or Screening Level

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# Moving Forward

DHS is continuing to consider health-led indoor air sampling at child care centers

DNR efforts to include notification of parents/guardians of minors in rule revisions

DCF will attempt to incorporate parent notification & mitigation requirement for environmental health hazards (incl. VI) in next rule revision

Milwaukee is checking in with the DNR prior to issuing child care licenses

# DHS Developed Fact Sheets & Letter Templates

Published July 2024

- Radon Testing for Child Care Providers
- Radon Mitigation for Child Care Providers
- Radon Notification Letter for Parents and Guardians

Coming Soon

- VI fact sheets for child care providers
- Example VI notification letter for parents and guardians

<https://www.dhs.wisconsin.gov/radon/child-care.htm>

## Radon Testing for child care providers

Radon is a radioactive gas that has no smell, color, or taste. It comes from the natural breakdown of uranium in the ground. Radon is the leading cause of lung cancer among people who don't smoke. Radon-related lung cancer can be prevented if we reduce the amount of radon in buildings where people live, work, and attend school and child care. **All licensed family and group child care centers in Wisconsin are required to test for radon.** Testing for radon in your center may look different depending on whether your center is a family or group care center. This frequently asked questions (FAQs) guide will help you know what to expect.

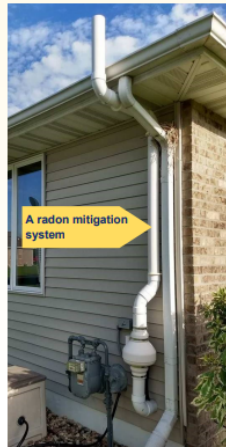
FAQ	Family Care Centers	Group Care Centers
Who should test my center for radon?	You can test your center yourself using a short-term radon test kit. You can purchase a test kit from a local hardware store or your <a href="#">regional Radon Information Center</a> . While not required, you may also hire a <a href="#">certified radon measurement contractor</a> .	The Department of Children and Families (DCF) requires one short-term radon test at a minimum. However, testing a non-residential building is complex. It is best practice to use a <a href="#">certified radon measurement contractor</a> to understand the true risk of radon in your building.
What is the cost of testing for radon?	A short-term test kit costs \$10–\$30 per test. Check for discounted short-term radon test kits at your <a href="#">regional Radon Information Center</a> . A certified radon measurement contractor will charge between \$125 and \$150 for a residential building. The child care center is responsible for these costs.	A certified radon measurement contractor will charge from \$500 to \$1500 to test a non-residential building. The cost of testing varies by size of the facility. The child care center is responsible for these costs. To find a certified radon measurement professional serving your county, visit <a href="http://www.lowradon.org">www.lowradon.org</a> .
How should I test for radon in my building?	Test for at least 48 hours in the lowest level of the center that is used by children in care for at least seven hours per week. The winter months are the best time to test. Keep windows and doors closed during testing. Refer to test kit instructions or <a href="http://www.lowradon.org">www.lowradon.org</a> for more information on how to test.	Test for at least 48 hours in the lowest level of the center that is used by children in care for at least seven hours per week. In commercial buildings, you'll need to test more places, including every classroom in contact with the ground. Using a <a href="#">certified radon measurement contractor</a> is recommended.
When do I need to test for radon?	New providers must test for radon within six months of providing care for children. Within five days of receiving results, you must submit a copy to your licensing specialist or DCF <a href="#">regional office</a> .  Test your center <b>every two years</b> after the initial test date, no matter what the result is.	New providers must test for radon within six months of providing care for children. Within five days of receiving results, you must submit a copy to your licensing specialist or DCF <a href="#">regional office</a> .  Test your center <b>every five years</b> after the initial test date, no matter what the result is.

## Radon Mitigation for child care providers

Radon is a radioactive gas that has no smell, color, or taste. It comes from the natural breakdown of uranium in the ground. Radon is the leading cause of lung cancer among people who don't smoke. All licensed family and group child care centers in Wisconsin are required to test for radon and **mitigate (reduce)** it if levels are found above 4 picocuries per liter (pCi/L).

### Why is radon mitigation important?

When **radon** enters a building, it can contaminate the indoor air. If radon is breathed in over long periods of time, it can cause lung cancer. Radon-related lung cancer can be prevented if we reduce the amount of radon in buildings where people live, work, and attend school and child care. A **radon mitigation system** prevents radon from entering a building by moving it from the soil under the building to the outside air. The radon then mixes with air and is no longer harmful.



### What should I do if the radon levels in my center are too high (above 4 pCi/L)?

- Within 12 months of testing, hire a [certified radon mitigation contractor](#) to install a radon mitigation system. A list of nationally certified radon mitigation professionals can be found at [www.lowradon.org](http://www.lowradon.org).
- Notify the parents and guardians of children in care. You can use the included [notification letter template](#).
- After the mitigation system is installed, **test the building again**. Submit updated test results to your child care licensing specialist or Department of Children and Families (DCF) [regional office](#) within 12 months of your initial test.
- Test and submit results **every two years** for family centers or **every five years** for group centers no matter what the result is.

### Is funding available to help centers pay for radon testing and mitigation?

Child care centers can use the DCF Child Care Counts Payment Program to help pay for radon testing and mitigation. Email [DCFDECECOVID19CCPayments@wisconsin.gov](mailto:DCFDECECOVID19CCPayments@wisconsin.gov) for questions about this program.

## Radon Notification letter for parents and guardians

### Dear Parents and Guardians:

Our center would like to update you on our efforts to reduce radon levels in our facility. **Radon** is a radioactive gas that has no smell, color, or taste. It comes from the natural breakdown of uranium in the ground. Radon is the leading cause of lung cancer among people who don't smoke. Lung cancer typically develops later in life, so preventing high levels of radon where people live, work, and attend school and child care is important.

Wisconsin law requires routine radon testing and mitigation (if needed) for licensed child care centers. We completed our test on \_\_\_\_\_ and the level of radon in our facility was \_\_\_\_\_ picocuries per liter (pCi/L). That's higher than the Environmental Protection Agency's recommended action level of 4 pCi/L. To comply with state regulations and prevent long-term exposure to radon for kids and staff in our facility, we will install a radon mitigation system. This system will remove radon from the ground below the facility before it has a chance to contaminate the air inside. The installation will be completed on \_\_\_\_\_.

**Protecting the health and well-being of the children in our care is our top priority.** Our center is committed to keeping you informed as we take these radon safety measures. Please reach out anytime with questions.

Sincerely,



To learn more about radon, scan the QR code or visit [www.lowradon.org](http://www.lowradon.org). For health-related questions or to test your own home for radon, contact your [regional Radon Information Center](#) or call 888-LOW-RADON (888-569-7236).



Wisconsin  
Vapor  
Intrusion Brief  
Updates



# VI Comms Mapping

January – June 2024 VI Communications Mapping

(DNR, DHS & city of Milwaukee (multiple departments))

Established plans for information sharing in specific scenarios

## COLLABORATION



Creativity



Teamwork



Partnership



Development



Solution



Communication



## ENTER SEARCH CRITERIA

Search

Reset

BRRTS No.

Facility ID

PECFA No.

Activity or Location Name

Address

Municipality

County

Region

Activity Type

Activity Status

Jurisdiction

DNR Project Manager

Financial Type

Substance

Relationships Between Activities

Start Date

End Date

☐ Continuing Obligations

☐ Dry Cleaner

☐ [Great Lakes AOC](#)

☐ Impacted Another Property

☐ On RR Sites Map/Geolocated

☐ PECFA Eligible

☐ Sediment Contamination

☐ Superfund

☐ Superfund NPL

☒ Vapor Levels Exceeded

☒ Vapor Levels Exceeded Off-Site

☐ WI DOT Site

Sort Results by BRRTS No.

Search

Reset

# Searchable Vapor Flags

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

# Example Search

## ENTER SEARCH CRITERIA

Search

Reset

BRRTS No.

Facility ID

PECFA No.

Activity or Location Name

Address

Municipality

County

Region

milwaukee

Activity Type

Activity Status

Jurisdiction

DNR Project Manager

Financial Type

Substance

TCE

Relationships Between Activities

Start Date

End Date

☐ Continuing Obligations

☐ Dry Cleaner

☐ Great Lakes AOC

☐ Impacted Another Property

☐ On RR Sites Map/Geolocated

☐ PECFA Eligible

☐ Sediment Contamination

☐ Superfund

☐ Superfund NPL

☒ Vapor Levels Exceeded

☐ Vapor Levels Exceeded Off-Site

☐ WI DOT Site

Sort Results by BRRTS No.

Search

Reset

## SEARCH RESULTS: 67 ACTIVITIES FOUND

HELP	DOWNLOAD RESULTS
Searched for: Muni Contains MILWAUKEE, Substance of TCE, Vapor Levels Exceeded,	
<div>Search Again   Next Page</div>	
Records 1 to 30 - Page 1 of 3	



WISCONSIN  
DEPARTMENT OF  
NATURAL RESOURCES

## ENVIRONMENTAL CLEANUP & BROWNFIELDS REDEVELOPMENT BRRTS ON THE WEB



>> SEARCH >> RESULTS >> ACTIVITY

Click the Location Name or FID below to view the Location Details page. If additional Activities are present at this location, they may be accessed from Location Details.

### ACTIVITY DETAILS

#### LIEN OR DEED AFFIDAVIT/NOTICE EXISTS ON PROPERTY

The State has placed a lien or deed affidavit/notice at this site associated with environmental cleanup obligations and/or costs. Click on the Location Name below to view information related to the lien or deed affidavit/notice.

#### CONTAMINATED VAPOR MAY MOVE INTO INDOOR AIR AND ANOTHER PROPERTY OR ROW WAS AFFECTED

Contamination at this property may move into indoor air as contaminated vapor, and the contamination moved beyond the property line to other properties or rights-of-way (ROWs) that may also be affected by contaminated vapor in indoor air. For more information, see the Relationships to Other Activities section, and files, if available, in the Actions and Documents section below.

# Vapor Banners

[https://apps.dnr.wi.gov/botw/  
SetUpBasicSearchForm.do](https://apps.dnr.wi.gov/botw/SetUpBasicSearchForm.do)

Continuous monitoring of an active vapor mitigation system (VMS) is important to ensure that the system continues to work as designed. A backup power system safeguards operations of an active VMS in the event of a loss of power.

An active notification primarily measures fan vacuum. Telemetry systems can measure additional parameters (including fan amperage, sub-slab/indoor air pressure differential, temperature and barometric pressure) at sampling intervals determined by the operator. Active notification systems may include:

- Audible alarms
- Visual indicators
- Telemetry systems

Using telemetry allows remote notifications of a VMS failure via an automated phone message, email or text to individuals who may be offsite.

**Best Practices For Active Notification And Backup Power At Sites With Active VMS**  
(Based On Health Risk And Land Use)

Type Of Health Risk	Land Use	Audible Alarm/ Visual Indicator	Telemetry	Backup Power
Chronic	All	Recommended	Optional	Optional
Acute	All except multi-family	Recommended	Optional	Optional
Acute [including due to trichloroethylene (TCE)]	Multi-family	Recommended	Recommended	Recommended

Contact the DNR project manager if you have questions regarding whether site-specific conditions may warrant continuous monitoring of the active VMS. For additional information regarding best practices from the American Association of Radon Scientists and Technologists (AARST), see [AARST Radon Standards \[exit DNR\]](#).

\*Chronic health risks represent the potential for health impacts over longer exposure durations, and acute health

# Active Notification Information on Web

<https://dnr.wisconsin.gov/topic/Brownfields/Vapor.html>

Posted on VI Resources for Environmental Professionals webpage.

# CONNECT WITH US

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"WILD WISCONSIN:  
OFF THE RECORD"