



October 7, 2020

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

Subject: Environmental Investigation in Neighborhood  
Donaldsons One Hour Cleaners (Former), 110 West Cecil St., Neenah, WI  
DNR BRRTS # 02-71-110797

Dear Neighbor,

This letter is to inform you of environmental contamination in the neighborhood. Perchloroethylene, or PCE, has been discovered in the soil and groundwater at a former dry cleaner at 110 West Cecil Street in Neenah (the "Property"). The Department of Natural Resources (DNR) is collaborating with the Department of Health Services (DHS) and the Winnebago County Health Department ("County Health") to coordinate a vapor intrusion investigation at the Commercial Square Apartments (described further below). **The enclosed *Vapor Intrusion Investigation – Information Sheet for Neighbors*, includes our contact information. You are encouraged to contact us directly with questions or concerns.**

PCE, is a widely used chlorinated solvent found in a variety of industrial operations including dry cleaning and metal processing. It is also found in everyday items in homes including glues, adhesives and metal cleaners. At the former dry cleaner mentioned above, PCE was used in the drycleaning operation from the 1970s until the 2000s. It is very common for PCE to be in the environment (soil, groundwater and air) at historical dry cleaner locations due to spills and leaks that occurred over time. Once in the environment, the contamination can migrate beyond the property boundaries.

Scientists have recognized that PCE vapors can be released from contaminated groundwater, move through soils and accumulate under buildings. Under certain conditions, these vapors can also move up through foundation floors (e.g., cracks, joints) and enter the indoor air. This is called vapor intrusion and is very similar to the way in which radon gas – a naturally occurring element – enters some buildings. Once inside a building, the vapors can present health concerns when occupants breathe it in over a long period of time. Vapor intrusion is further described in the enclosed fact sheet, *What is Vapor Intrusion?* PUB-RR-892. The potential health effects of PCE are described in the enclosed fact sheet, *Tetrachloroethylene – ToxFAQs*.

The responsible party for the contamination historically performed an investigation into the extent of the contamination in soil and groundwater throughout the neighborhood. During the investigation, a groundwater pump and treatment system was installed and operated to limit movement of PCE-contaminated groundwater and reduce the amount of PCE in groundwater. Accessible contaminated soil was also removed from the Property. The city of Neenah demolished the former dry cleaner building in March 2020 and the Property is currently vacant.

Despite efforts to reduce the contamination, there are currently two groundwater monitoring locations on the Commercial Square Apartments property that indicate PCE contamination migrated in groundwater beneath the buildings. It is important to note that your drinking water is not impacted by this contamination as it is provided by the municipality and not by a potable well on the property.

Due to the pandemic and lack of a shared space in the apartment complex, we are unfortunately unable to hold an informational meeting for you and your neighbors. We understand this is already a stressful time during the pandemic and the added uncertainty of a vapor intrusion investigation is undoubtedly a concern. We are working closely with your building manager, Donna Warner, and increasing the amount of information and literature that we send to you directly to keep you as informed as possible. You are also encouraged to contact us directly with questions.

In the coming weeks, we will be coordinating with select occupants on the first floor in the apartment complex to test indoor air and air beneath the foundation through a sampling port. You may see our environmental consultant, EnviroForensics, on the property as they collect the samples of air inside certain units and outside. These tests will help us determine if PCE in nearby groundwater is actually moving up through the soil as a vapor and accumulating beneath or entering these buildings where they can put occupants' health at risk. This is further described in the attached fact sheet, *Why Test for Vapor Intrusion?* PUB-RR-953.

DNR is working closely with DHS and County Health to perform this important investigation while also taking necessary precautions to protect you, your neighbors and our workers from COVID-19. For example, EnviroForensics staff will minimize the number of workers on site, maintain physical distance from occupants and wear protective gear including masks, gloves and booties. We will coordinate entry into a unit with the occupants in advance of the sampling date and explain much of the process in advance to minimize time in the units. In addition, DHS and County Health are ready to discuss any health concerns regarding vapor intrusion or COVID-19.

An initial sampling event is planned to take place in October 2020. Subsequent sampling events may occur in winter 2020/2021 and possibly spring/summer 2021. We will continue to share information, sampling results and next steps with all occupants of Commercial Square Apartments as the work progresses.

Please contact me if you have questions regarding the environmental investigation or need an update on our progress. Please direct any health-related questions to Doug Gieryn, County Health, or Amanda Koch, DHS (see attached *Vapor Intrusion Investigation – Information Sheet for Neighbors* for contact information).

Sincerely,



Jennifer Borski  
Hydrogeologist  
Remediation & Redevelopment Program  
(920) 360-0853  
[Jennifer.Borski@wisconsin.gov](mailto:Jennifer.Borski@wisconsin.gov)

October 7, 2020

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Environmental Investigation in Neighborhood

Donaldson's One Hour Cleaners (Former), 110 West Cecil St., Neenah, WI

DNR BRRTS # 02-71-110797

Encl.

- Vapor Intrusion Investigation – Information Sheet for Neighbors (DNR)
- Fact Sheet: What is Vapor Intrusion? (DNR PUB RR-892)
- Fact Sheet: Why Test for Vapor Intrusion? (DNR PUB RR-953)
- Tetrachloroethylene – ToxFAQs (ATSDR)

cc: Donna Warner, Premier Real Estate Management, [commercialsquare@pre-3.com](mailto:commercialsquare@pre-3.com)  
Doug Gieryn, Winnebago County Health, [dgieryn@winnebago.co.wi.us](mailto:dgieryn@winnebago.co.wi.us)  
Amanda Koch, DHS, [Amanda.koch@dhs.wi.gov](mailto:Amanda.koch@dhs.wi.gov)

# Vapor Intrusion Investigation — Information Sheet for Neighbors

DATE September 27, 2020

SITE NAME & ADDRESS Donaldsons One Hour Cleaners (Former), 110 W. Cecil St., Neenah, WI

DNR ACTIVITY (BRRTS) NUMBER 02-71-110797

For more information about this investigation and cleanup project go to [dnr.wi.gov](http://dnr.wi.gov) and search for “cleanup database” or “RR sites map”

**BRRTS on the Web is the DNR’s database of contaminated sites**  
Enter the activity number or the site address

**RR Sites Map is the DNR’s interactive map of contaminated sites**  
Enter site address, or zoom in to your neighborhood to find the site

## PEOPLE TO CONTACT WITH YOUR QUESTIONS

ROLE	WHAT THEY DO	CONTACT PERSON & COMPANY	PHONE & EMAIL (if available for contact)
Responsible Party	Person or entity responsible for investigating and cleaning up the contamination	The DNR is currently investigating contamination from the former dry cleaner operation.	Please contact the DNR Project Manager with questions.
Environmental Consultant	Technical expert hired by Responsible Party or DNR to conduct the investigation and cleanup work	Wayne Fassbender EnviroForensics Waukesha, WI	Please contact the DNR Project Manager with questions.
DNR Project Manager	Regulator and contact person for questions on environmental cleanup status and overall process	Jennifer Borski, DNR 625 E. County Rd Y, STE. 700 Oshkosh, WI 54901-9731	Cell: 920-360-0853 <a href="mailto:jennifer.borski@wisconsin.gov">jennifer.borski@wisconsin.gov</a>
Dept. of Health Services	Contact person for questions on health risks associated with exposure to chemical vapors	Amanda Koch, Health Educator Department of Health Services  Doug Gieryn, Health Officer Winnebago County Health Dept.	Phone: 608-267-2487 <a href="mailto:amanda.koch@dhs.wisconsin.gov">amanda.koch@dhs.wisconsin.gov</a>  Phone: 920-232-3029 Cell: 920-420-4900 <a href="mailto:dgieryn@co.winnebago.wi.us">dgieryn@co.winnebago.wi.us</a>

WHO HIRED THE ENVIRONMENTAL CONSULTANT?  Responsible Party  DNR  Other \_\_\_\_\_

## Additional resources on vapor intrusion

For more information on vapor intrusion go to [dnr.wi.gov](http://dnr.wi.gov) and search for “vapor intrusion”

To view a short video about vapor intrusion go to [dnr.wi.gov](http://dnr.wi.gov) and search for “vapor intrusion 101”

## Checked boxes indicate DNR and DHS fact sheets are enclosed

- What is vapor intrusion?  Why test for vapor intrusion?  Who should I contact about vapor intrusion investigations?  
 What to expect during vapor intrusion sampling  Environmental contamination and your real estate  WI Dept. of Health Services handouts

## What is Vapor Intrusion?



Chemicals used in commercial or industrial activities – dry cleaning chemicals, chemical degreasers and petroleum products such as gasoline – are sometimes spilled and leak into nearby soil or groundwater. When this happens, these chemicals may release gases or vapors, which travel from the contaminated groundwater or soil and move into nearby homes or businesses. This is called vapor intrusion.

*The process when chemical vapors from contaminated soil or groundwater enter a home or other structure is called vapor intrusion.*

### Why are these chemical vapors a problem?

The chemicals that cause vapor intrusion are known as volatile organic compounds, or VOCs. Even when spilled into soil or water, these chemicals easily evaporate. They don't cause human health problems when they evaporate into the outside air, but when their vapors move into homes or businesses, they may cause long-term health problems for the people who live or work in those buildings. These vapors are usually odorless and colorless and undetectable without special testing equipment.

### Why is vapor intrusion a concern?

Exposure to some chemical gases or vapors can cause an increased risk of adverse health effects. Whether or not a person experiences any health effects depends on several factors, including the amount and length of exposure, the toxicity of the chemical, and the individual's sensitivity to the chemical. When harmful chemical vapor intrusion is the result of environmental contamination, the Wisconsin Department of Natural Resources (DNR) requires that steps be taken to reduce or eliminate exposures which could be harmful to human health.

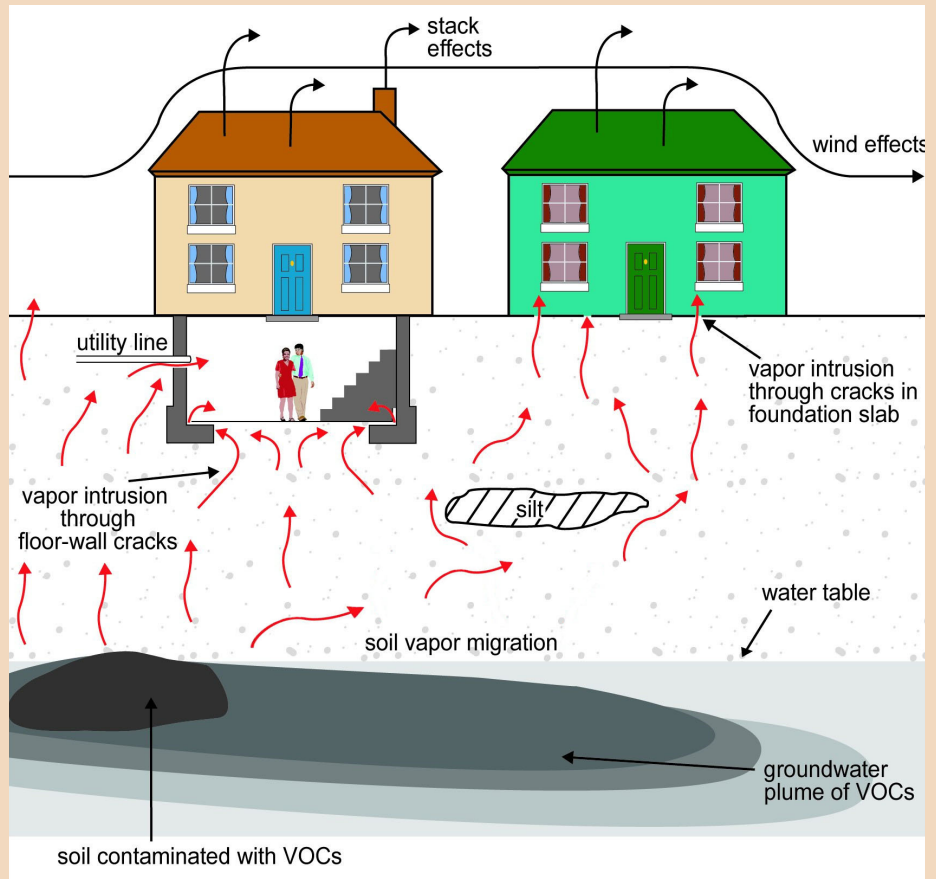
### What should I expect if vapor intrusion is suspected near my home or business?

For businesses or other locations where VOC contamination has been found, the DNR requires that the potential for vapor intrusion be investigated. If you live near a site being cleaned up, you may be contacted by the site owner or others working on the cleanup. Your cooperation and consent will be requested before any testing or sampling is conducted on your property. Ask the person contacting you any questions you have about the work being done, or contact the DNR for more information (see DNR contact information on reverse). For more information about testing for vapor intrusion, see DNR-Pub-RR-954, "What to Expect During Vapor Intrusion Sampling."



## How Vapors Enter a Building

If you live near a commercial or industrial facility or landfill where VOCs have entered either the soil or groundwater, there may be a potential for those chemicals to travel as vapors into your home or business. Vapors can enter buildings in various ways, including through cracks in the foundation and openings for utility lines. Building ventilation and weather can influence the extent of vapor intrusion.



Adapted from U.S. Environmental Protection Agency (EPA) graphic.  
[www.epa.gov/oswer/vaporintrusion/basic.html](http://www.epa.gov/oswer/vaporintrusion/basic.html)

## Where can I find more information?

Health and vapor-related information can be found at the Wisconsin Department of Health Services (DHS) website at [dhs.wisconsin.gov](http://dhs.wisconsin.gov), search "Vapor." For other health-related questions, please contact your local health department: [www.dhs.wisconsin.gov/localhealth](http://www.dhs.wisconsin.gov/localhealth).

For more DNR information, please visit the DNR's Remediation and Redevelopment (RR) Program's Vapor Intrusion page at [dnr.wi.gov/topic/Brownfields/Vapor.html](http://dnr.wi.gov/topic/Brownfields/Vapor.html).

Additional information can be obtained through the DNR field office in your region. To find the correct office, visit the RR Program Staff Contacts page at [dnr.wi.gov/topic/Brownfields/Contact.html](http://dnr.wi.gov/topic/Brownfields/Contact.html) or call the RR Program at (608) 266-2111.

This document contains information about certain state statutes and administrative rules but does not necessarily include all of the details found in the statutes and rules. Readers should consult the actual language of the statutes and rules to answer specific questions. The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format upon request. Please call 608-267-3543 for more information.

## Why Test for Vapor Intrusion?



Vapor intrusion is likely an unfamiliar term to you, and hearing that your property should be tested for possible chemical vapor intrusion may cause you some concern. That is understandable, and this information sheet is designed to answer basic questions many people have. Please refer to DNR PUB-RR-892, “What is Vapor Intrusion?” for a summary discussion of the term “vapor intrusion.”

Most cases of vapor intrusion will pose no immediate threat to your health and safety. However, when other neighborhood properties are contaminated, it is wise to get your home or building tested to determine if there is any cause for concern. If potentially harmful chemical vapors are detected inside your home or building, the Department of Natural Resources (DNR), working in collaboration with other health and environmental professionals, will help you come up with a solution to protect you and your family.

Please consider the following factors when deciding whether to allow access for sampling:

### Peace of mind

If there’s a chance that chemical vapor or soil gas is seeping into your home or business, testing can determine whether it really is and to what extent. If testing reveals a problem, then steps can be taken to resolve it, making the indoor air you breathe safer for you and your family. Like radon gas, vapors from nearby soil or groundwater contamination can be diverted from beneath your home or office building and safely expelled into the outdoors, thus improving air quality inside your home or building.

***The goal of sampling a residence or business is to eliminate as many of the unknowns as possible and safely address any concerns.***

### Who pays for testing?

You didn’t cause this problem, so you don’t have to pay for testing just as long as you allow reasonable and timely access to have testing done. The cost of sampling at potentially impacted residences or workplaces, like yours, is covered by the responsible party (the person or business legally obligated to investigate and clean up the contamination). In some cases, it’s paid for directly by DNR, the Department of Health Services (DHS), or some other agency. Vapor sampling will be performed by a professional, and samples will be sent to a specialized lab for analysis.

### Trained professionals and experts oversee the process

Multiple state and local agencies often work together to determine if vapor intrusion is a potential health risk in an area. The DNR, DHS, local health officials, the responsible party and environmental consultants are working together to ensure that quality samples are taken and that all results are given extensive review. It is important to gather the information in order to adequately understand if or where there may be a risk of vapor intrusion in your neighborhood.

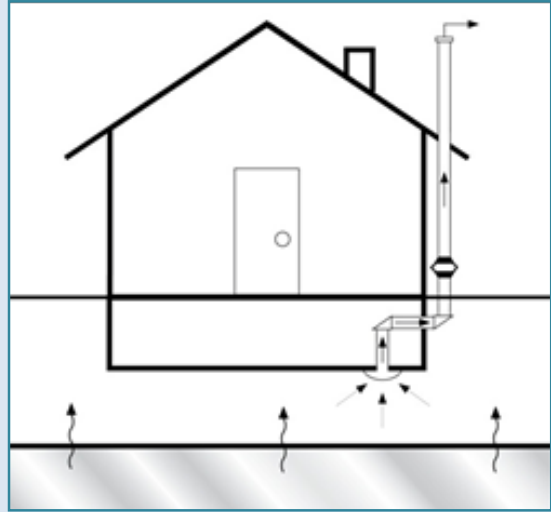


## A simple, cost effective solution exists

If vapor intrusion is a problem in a house or building, it can generally be solved by installing a vapor mitigation system. These sub-slab depressurizing systems are similar to those used to eliminate radon gas underneath homes, and have been used for years in a safe and effective manner. If the source of the vapor is tied to a responsible party, they will often pay to have a system installed at your home. The annual upkeep and operation of a typical system is generally less than \$100 per year, mostly for electricity. These annual costs are typically the responsibility of the homeowner.

## How will I know if the vapors have been eliminated?

After a vapor mitigation system is installed, follow-up testing of indoor air typically takes place three to six months later. The systems are usually considered permanent fixtures of the building. In cases where the source of the vapor is completely eliminated, the systems should no longer be needed.



If potentially harmful chemical vapor intrusion is detected in a home or business, the most common solution is to install a sub-slab depressurization system. This system captures and redirects soil vapors from below the building foundation before they enter the indoor air. Vapors are vented outside of the building where they disperse into the air and are rendered harmless.

Sub-slab depressurization systems also prevent radon from entering homes, which is an added health benefit in radon-prone areas.

## Where can I find more information?

Health and vapor-related information can be found at the Wisconsin Department of Health Services (DHS) website at [dhs.wisconsin.gov](http://dhs.wisconsin.gov), search “Vapor.” For other health-related questions, please contact your local health department: [www.dhs.wisconsin.gov/localhealth](http://www.dhs.wisconsin.gov/localhealth).

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# Tetrachloroethylene - ToxFAQs™

CAS # 127-18-4

This fact sheet answers the most frequently asked health questions (FAQs) about tetrachloroethylene. For more information, call the ATSDR Information Center at 1-800-232-4636. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

**HIGHLIGHTS:** Tetrachloroethylene is a manufactured chemical used for dry cleaning and metal degreasing and in the aerospace industry. Exposure to very high concentrations of tetrachloroethylene can cause dizziness, headaches, sleepiness, incoordination, confusion, nausea, unconsciousness, and even death. Tetrachloroethylene has been found in at least 949 of the 1,854 National Priorities List sites identified by U.S. Environmental Protection Agency (EPA).

## What is tetrachloroethylene?

Tetrachloroethylene is a nonflammable colorless liquid. Other names for tetrachloroethylene include perchloroethylene, PCE, perc, tetrachloroethene, and perchlor. Most people can smell tetrachloroethylene when it is present in the air at a level of 1 part in 1 million parts of air (1 ppm) or more.

Tetrachloroethylene is used as a dry cleaning agent and metal degreasing solvent. It is also used as a starting material (building block) for making other chemicals and is used in some consumer products.

## What happens to tetrachloroethylene when it enters the environment?

- Tetrachloroethylene can be released into air, water, and soil at places where it is produced or used.
- Tetrachloroethylene breaks down very slowly in the air and so it can be transported long distances in the air. Half of the amount in the air will degrade in approximately 100 days.
- Tetrachloroethylene evaporates quickly from water into air. It is generally slow to break down in water.
- Tetrachloroethylene may evaporate quickly from shallow soils or may filter through the soil and into the groundwater below. It is generally slow to break down in soil.

## How might I be exposed to tetrachloroethylene?

- When you bring clothes from the dry cleaners, they will release small amounts of tetrachloroethylene into the air.
- When you drink water containing tetrachloroethylene, you are exposed to it. You might also be exposed to tetrachloroethylene that is released into the air during showering and bathing.
- People residing near contaminated sites or dry cleaning locations may be exposed to higher levels than the general population.
- People working in the dry cleaning industries or using metal degreasing products may be exposed to elevated levels of tetrachloroethylene.

## How can tetrachloroethylene affect my health?

Breathing high levels of tetrachloroethylene for a brief period may cause dizziness or drowsiness, headache, and incoordination; higher levels may cause unconsciousness and even death.

Exposure for longer periods to low levels of tetrachloroethylene may cause changes in mood, memory, attention, reaction time, and vision.

Studies in animals exposed to tetrachloroethylene have shown liver and kidney effects, and changes in brain chemistry, but we do not know what these findings mean for humans.

# Tetrachloroethylene

CAS # 127-18-4

## How likely is tetrachloroethylene to cause cancer?

Studies in humans suggest that exposure to tetrachloroethylene might lead to a higher risk of getting bladder cancer, multiple myeloma, or non-Hodgkin's lymphoma.

In animals, tetrachloroethylene has been shown to cause cancers of the liver, kidney, and blood system.

The Department of Health and Human Services (DHHS) considers tetrachloroethylene to be reasonably anticipated to be a human carcinogen. EPA considers tetrachloroethylene likely to be carcinogenic to humans by all routes of exposure. The International Agency for Research on Cancer (IARC) considers tetrachloroethylene probably carcinogenic to humans.

## How can tetrachloroethylene affect children?

It is not known whether children are more susceptible than adults to the effects of tetrachloroethylene.

A few studies in humans have suggested that exposure to tetrachloroethylene increased the numbers of babies with birth defects, but these studies were not large enough to clearly answer the question. Studies in animals exposed by inhalation or stomach tube have not shown clear evidence of specific birth defects.

## How can families reduce the risk of exposure to tetrachloroethylene?

- Tetrachloroethylene has been found in low levels in some food. You can minimize the risk of your family's exposure by peeling and thoroughly washing fruits and vegetables before cooking.
- Use bottled water if you have concerns about the presence of tetrachloroethylene in your tap water. You may also contact local drinking water authorities and follow their advice.

- Prevent children from playing in dirt or eating dirt if you live near a waste site that has tetrachloroethylene.
- Tetrachloroethylene is widely used as a scouring solvent that removes oils from fabrics, as a carrier solvent, as a fabric finish or water repellent, and as a metal degreaser/cleaner. Follow instructions on product labels to minimize exposure to tetrachloroethylene.

## Is there a medical test to determine whether I've been exposed to tetrachloroethylene?

Tetrachloroethylene and its breakdown products (metabolites) can be measured in blood and urine. However, the detection of tetrachloroethylene or its metabolites cannot predict the kind of health effects that might develop from that exposure. Because tetrachloroethylene and its metabolites leave the body fairly rapidly, the tests need to be conducted within days after exposure.

## Has the federal government made recommendations to protect human health?

The Occupational Safety and Health Administration (OSHA) has set an 8-hour time weighted average permissible exposure limit of 100 ppm, an acceptable ceiling exposure limit of 200 ppm, and a maximum peak of 300 ppm (not to be exceeded for more than 5 minutes of any 3-hour period).

The National Institute for Occupational Safety and Health (NIOSH) recommends that workplace exposure to tetrachloroethylene be minimized due to concerns about its carcinogenicity.

## Reference

This ToxFAQs™ information is taken from the 2019 Toxicological Profile for Tetrachloroethylene produced by the Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services, Public Health Service in Atlanta, GA.

## Where can I get more information?

For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Human Health Sciences, 1600 Clifton Road NE, Mailstop F-57, Atlanta, GA 30329-4027.

Phone: 1-800-232-4636

ToxFAQs™ on the web: [www.atsdr.cdc.gov/ToxFAQs](http://www.atsdr.cdc.gov/ToxFAQs)

ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.