Transmittal Form

CON 12-15
Doc #19871

DNR

Environmental Services Division
Field Office #6

Date: 4/18/08

From: FO#6
Office or Person

Records ☐ Licensing ☐

AFO ☐ AQ ☐ Contam. Sites ☒

Waste Man. ☐ ER ☐ Legal ☐

LUST/UST ☐ WS ☐ WW ☐ WW Permits ☐

B & F ☐ Stormwater ☐ Cashier- D. Perkins ☐

Solid Waste ☐ FO1 ☐ FO2 ☐ FO3 ☐

FO4 ☐ FO5 ☐ Other _____

Attn: Cal Lundberg
Person

Comments: _____

6954 04/21/08 PM 2:19

Fields of Opportunities

STATE OF IOWA

CHESTER J. CULVER, GOVERNOR
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
RICHARD A. LEOPOLD, DIRECTOR

April 17, 2008

Gary Sheetz
1430 North 12th Avenue
Washington, IA 52353

SUBJECT: Well Water Sample Results

Dear Mr. Sheetz:

I am writing in regarding your request for DNR assistance regarding the testing of your private well. On March 13, 2008 I met you and your wife, and I collected raw water samples (from a tap that was not connected to any water treatment) associated with your well water.

The well water was taken to University of Iowa Hygienic Laboratory for analyisis for Inorganic Chemicals and Volatile Organic Compounds (see attached sample results). There was no detection of any of the VOCs that were analyzed. The presence of Arsenic was detected at 0.053 mg/L from these water samples. Any drinking water with Arsenic levels above 0.01 mg/L is considered higher than the maximum contaminate level (MCL) in public drinking water. I have provided a information sheet that IDNR created in 2001 regarding the lowering of the public drinking water MCL standard of Arsenic from 0.05 mg/L to the current MCL standard of 0.01 mg/L. In addition, I have provided some information regarding chemical exposures that IDPH designed to discuss health assessments involving chemical exposures.

Feel free to contact me at 319-653-2135 with questions. If you have questions relating the Arsenic information, or need other assistance, please see the contact information on the last page of that packet.

Sincerely,

Ryan Stouder
Environmental Specialist

Encl: Arsenic & Drinking Water Handout
UHL Sample results
IDPH – Chemical Exposures

xc: Water Supply Section, DNR, Des Moines (w/ attachments)
Washington County Public Health Department, Attn: Jeff Thomann, PO Box 889 - 222 West Main Street, Washington, Iowa 52353 (w/ attachments)
Contaminated Site Section, DNR, Des Moines – Attn: Cal Lundberg (w/ attachments)
File – General information – Washington County

Hygienic Laboratory

The University of Iowa

Date of report: 04-07-2008

RYAN STOUDER
EPD 6
1023 WEST MADISON STREET

WASHINGTON IA 52353-1623

Sample Number	2008006870
Date Received	03-13-2008
Project	17WSTECH
Date Collected	03-13-2008 10:58
Collection Site	sheetz house
Collection Town	Washington
Description	water
Reference	ID #01
Collector	STOUDER RYAN
Phone	(319) 653-2135
Purchase Order	

Comments: *Per phone call from Ryan 3/14-add NO3 & SO4. Upon arrival, sample met container and preservation requirements for the analysis requested. Please review carefully your sample results for additional analyte comments or method exceptions.*

Results of Analyses

Manual Fluoride by ISE (SDWA)

Analyte	Concentration mg/L	Quantitation Limit mg/L
Fluoride	0.47	0.10

Date Analyzed: 03-17-2008
Method: SM 4500-F C
Analyst: JF
Verified: TAB

Total Cadmium

Analyte	Concentration mg/L	Quantitation Limit mg/L
Total Cadmium	<0.001	0.001

Date Analyzed: 03-18-2008
Method: EPA 200.8
Analyst: SB
Verified: LF

Total Antimony

Analyte	Concentration mg/L	Quantitation Limit mg/L
Total Antimony	<0.005	0.005

Date Analyzed: 03-18-2008
Method: EPA 200.8
Analyst: SB
Verified: LF

Total Thallium

Analyte	Concentration mg/L	Quantitation Limit mg/L
Total Thallium	<0.001	0.001

Date Analyzed: 03-18-2008
Method: EPA 200.8
Analyst: SB
Verified: LF

Page 1 - Continued on next page

Michael D. Wichman, Ph.D.
Michael A. Pentella, Ph.D.
Associate Directors

102 Oakdale Campus, #101 OH
Iowa City, Iowa 52242-5002
319/335-4500 Fax: 319/335-4555

http://www.uhl.uiowa.edu

Iowa Laboratories Complex
2220 S. Ankeny Blvd, Ankeny, Iowa 50023
515/725-1600 Fax: 515/725-1642

Total Arsenic

Analyte	Concentration mg/L	Quantitation Limit mg/L
Total Arsenic	0.053	0.001

Date Analyzed: 03-24-2008
Method: EPA 200.8
Analyst: SB
Verified: TAB

Total Selenium

Analyte	Concentration mg/L	Quantitation Limit mg/L
Total Selenium	<0.01	0.01

Date Analyzed: 03-18-2008
Method: EPA 200.8
Analyst: SB
Verified: LF

SDWA Sulfate

Analyte	Concentration mg/L	Quantitation Limit mg/L
Sulfate	100	1.0

Date Analyzed: 03-25-2008
Method: EPA 300.0
Analyst: LDA
Verified: LF

Total Mercury

Analyte	Concentration mg/L	Quantitation Limit mg/L
Total Mercury	<0.0002	0.0002

Date Analyzed: 04-02-2008
Method: EPA 245.2
Analyst: AB
Verified: TAB

Total Barium

Analyte	Concentration mg/L	Quantitation Limit mg/L
Total Barium	<0.05	0.05

Date Analyzed: 03-14-2008
Method: EPA 200.7
Analyst: DC
Verified: SB

Total Chromium

Analyte	Concentration mg/L	Quantitation Limit mg/L
Total Chromium	<0.01	0.01

Date Analyzed: 03-14-2008
Method: EPA 200.7
Analyst: DC
Verified: SB

Page 2 - Continued on next page

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Total Sodium

Analyte	Concentration mg/L	Quantitation Limit mg/L
Total Sodium	200	0.50

Date Analyzed: 03-14-2008
Analyst: DC
Method: EPA 200.7
Verified: SB

SDWA NITRATE as N

Analyte	Concentration mg/L	Quantitation Limit mg/L
Nitrate Nitrogen as N	<0.1	0.1

Date Analyzed: 03-14-2008
Analyst: BR
Method: EPA 353.2
Verified: DS

Description of units used within this report

mg/L - Milligrams per Liter

Quant Limit - Lowest concentration reliably measured

Iowa Environmental Laboratory ID #027.

If you have any questions please call Client Services at 800/421-IOWA (4692) or 319/335-4500. Thank you.

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515/725-1600 Fax: 515/725-1642

Hygienic Laboratory

The University of Iowa

Date of report: 03-20-2008

EPD 6
1023 WEST MADISON STREET

WASHINGTON IA 52353-1623

Sample Number	**2008006869**
Date Received	03-13-2008
Project	17WSTECH
Date Collected	03-13-2008 10:24
Collection Site	sheetz house
Collection Town	Washington
Description	water
Reference	SAMPLE PT ID 01
Collector	STOUDER RYAN
Phone	(319) 653-2135
Purchase Order	

Comments: *Upon arrival, sample met container and preservation requirements for the analysis requested. Please review carefully your sample results for additional analyte comments or method exceptions. Paperwork lists collection time as 10:25; per earliest label 10:24.*

RECEIVED
MAR 2 1 2008
IOWA DEPARTMENT OF NATURAL RESOURCES
FO6

Results of Analyses

GC/MS 524.2 Volatiles

Analyte	Concentration ug/L	Quantitation Limit ug/L
Vinyl chloride	<0.5	0.5
Methylene chloride	<1.0	1.0
1,1-Dichloroethene	<0.5	0.5
trans-1,2-Dichloroethylene	<0.5	0.5
cis-1,2-Dichloroethylene	<0.5	0.5
1,2-Dichloroethane	<0.5	0.5
1,1,1-Trichloroethane	<0.5	0.5
Carbon tetrachloride	<0.5	0.5
1,2-Dichloropropane	<0.5	0.5
Trichloroethene	<0.5	0.5
1,1,2-Trichloroethane	<0.5	0.5
Benzene	<0.5	0.5
Tetrachloroethylene	<0.5	0.5
Toluene	<0.5	0.5
Chlorobenzene	<0.5	0.5
Ethylbenzene	<0.5	0.5
Styrene	<0.5	0.5
Total Xylenes	<0.5	0.5
o-Dichlorobenzene	<0.5	0.5
p-Dichlorobenzene	<0.5	0.5
1,2,4-Trichlorobenzene	<0.5	0.5

Comments: *Please note that the pH of this sample was greater than 2.5.*

Date Analyzed: 03-13-2008
Method: EPA 524.2

Analyst: LL
Verified: CR

Page 1 - Continued on next page

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Arsenic and Drinking Water

November 2001

The levels of arsenic in your drinking water could affect your health. The levels of concern are lower than previously thought and, as a result, the EPA is lowering its drinking water standard for arsenic. Levels above the new standard have been found in groundwater at various locations in Iowa. This fact sheet has been prepared by the Iowa Department of Natural Resources and the Iowa Department of Public Health to provide you with facts on arsenic and what you can do to determine if your well water has arsenic in it.

What is arsenic?

Arsenic is a naturally occurring, common element found in the earth's crust. Very low levels of arsenic are also present in plants and foods such as fish as well as in the air. Arsenic is typically found in combination with other elements – arsenic compounds – and has no distinctive taste or smell. Many of these compounds occur naturally but some are man-made.

Arsenic compounds have had number of uses including medicines, manufacturing, pesticides and even livestock feed additives, but most of these uses have been discontinued. Today, the main use is for a wood preservative, chromated copper arsenate or CCA, although small amounts are still used for pesticides, as a metal alloy, and for electronic components. Since 1985, arsenic used in the U.S has been imported.

Why the concern over arsenic if it occurs in nature?

At very low levels, there is relatively little concern. The body may even need very small amounts of arsenic. However, new evidence shows the amount of arsenic that can cause health problems is lower than previously thought. Most people consume small amounts of arsenic in the food they eat, but drinking water with even low to moderate levels of arsenic can provide more than is safe. And the most toxic form of arsenic, known as inorganic arsenic, is the form typically found in groundwater. Studies have shown that people drinking well water with elevated levels of arsenic have higher risks of some diseases.

Drinking well water with low to moderately elevated levels of arsenic over a long period of time may lead to *chronic* health effects. Chronic health effects, such as cancer, develop over a number of years and can be difficult to detect, especially in the early stages. Higher levels of arsenic can also lead to more immediate or *acute* health effects that usually have more noticeable symptoms.

The amount of arsenic in water is measured in *micrograms* of arsenic per liter of water, abbreviated as µg/L, or as *milligrams* per liter, abbreviated as mg/L.*

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* To obtain the level in mg/L, multiply the level in µg/L by 1,000. One µg/L is equivalent to one part per billion (ppb), one mg/L is equivalent to one part per million (ppm) by weight. A concentration of 1.0 µg/L is roughly equivalent to one ounce of pure arsenic in 7½ million gallons of water

What are the levels of concern and the associated health effects?

Most people know that arsenic has been used as a poison but it is very unlikely the levels in groundwater will cause immediate death. However, the levels that might be present in some groundwater could cause short term or acute health problems that have one or more of the following symptoms:

- Nausea, vomiting, diarrhea, and abdominal pain
- Fatigue, abnormal heart rhythm
- Abnormal bruising
- "Pins and needles" sensations in your hands and feet

These acute symptoms would not normally be expected unless an adult person drinks water with arsenic levels exceeding 500 μg/L - the actual level causing acute symptoms could vary depending on a number of factors including body weight and water consumption. Levels above 500 μg/L are not expected in Iowa groundwater and, for that reason, the long term or chronic effects of arsenic are a greater health concern in Iowa.

Chronic health effects include an increased risk of cancer and other life-threatening diseases. The strongest evidence shows a link between arsenic and skin, bladder, and lung cancer, with bladder and lung cancer being the biggest concern. Some studies suggest arsenic may also increase the risk of prostate, kidney, and liver and other cancers, but the data is not conclusive.

Other studies indicate that arsenic may have non-cancer effects including:

- Cardiovascular disease such as high blood pressure, heart disease, and stroke;
- Diabetes
- Reproductive problems
- Immune and nervous system problems,

The lowest level of arsenic in water that can have long term or chronic health effects is not known. The Environmental Protection Agency's current standard for drinking water, known as a Maximum Contaminant Level or MCL, is 50 μg/L but is now being lowered to 10 μg/L. MCL's are based on a number of factors including economics and reflect what is considered an acceptable, not zero, risk of health effects. Some feel the MCL should be set at 3 or 5 μg/L, not 10 μg/L. If there is a threshold value below which there is no known risk, it is believed to be much lower than the range of values that were considered for the new MCL.

Not all experts agree on the health effects, the relative risks, or the levels of arsenic that cause health problems. Other environmental contaminants as well as lifestyles (for instance, smoking) can also cause these health problems and may have greater risks than drinking water with low to moderate levels of arsenic. The risk can vary from person to person due to a number of factors including the amount of water consumed and body weight. Like most health studies, not all arsenic studies arrived at the same conclusions but one of the strengths of the studies is that actual human health effects were considered, not animal studies with high doses.

When looking at current data, most experts seem to agree that long term consumption of water with levels greater than 3 μg/L will lead to an increased risk of skin, lung and bladder cancer. The risk increases with the level of arsenic. The National Academy of Science's best estimate is that, over a lifetime, drinking water with an arsenic level of 3 μg/L will cause an additional 4 to 10 cases of bladder or lung cancer per 10,000 people. As the level of arsenic increases from 3 μg/L to 10 μg/L, the risk more than doubles and from 10 μg/L to 20 μg/L the risk again doubles.

As with many things, risk needs to be put in perspective to make rational decisions. For instance, the National Academy estimates that over a lifetime an additional 45 out of every 10,000 males in the U.S. would get bladder cancer as a result of drinking water with 20 μg/L over an extended period. But this would account for only 1/8 of the total risk of male bladder cancer. The proportional risk is even smaller for lung cancer when considering the incidence of lung cancer from all causes. Drinking water with arsenic in it will, in fact, increase the risk of life threatening diseases, but arsenic at low to moderate levels is only a part of the total risk of lung and bladder cancer. Some people may feel that low to moderate levels of arsenic in their drinking water is a minor concern compared to other risks and elect to not do anything about it. On the other hand, it makes sense to reduce that risk by removing the arsenic from your drinking water, especially if it can be done at a reasonable cost.

How does the arsenic get in drinking water?

Although hazardous waste sites, spills and other sources of man-made arsenic compounds have contaminated groundwater in a few areas, the main cause is the natural weathering and decomposition of soil and minerals. Water coming in contact with this material can dissolve the arsenic. In some areas, this natural process results in levels of dissolved arsenic in groundwater that can have human health effects if used as a source of drinking water.

Are high levels of arsenic found in Iowa groundwater and, if so, where?

Arsenic levels above 10 μg/L have been detected in groundwater at a number of locations in Iowa. Most of the levels were less than 50 μg/L, although some have approached or exceeded 200 μg/L. Levels lower that 10 μg/L are likely more common, but the analytical methods typically used in the past did not measure levels that low.

There is not enough data to be able to predict with any accuracy where and in what aquifers or geologic formations there might be problems. Monitoring data for public water supplies show the north central portion of Iowa seems to have a higher probability of levels over 10 μg/L, but this does not mean other areas will not have arsenic above the levels of concern. Even within an area of assumed low levels, there may be "hot spots" with high levels.

Is there a way to know if I've been exposed to arsenic?

Most people will have some level of arsenic in their body due to the background levels of arsenic in food, air and water. The question is whether you have been exposed to levels that might cause health problems. Analysis of hair, fingernail,

and urine samples can be used to determine past exposure but these tests are not very helpful in detecting lower level exposures that could cause chronic health effects. If you exhibit some of the health effects described above, arsenic could be a factor, but keep in mind that these problems can be caused by many other things. Other symptoms can include a darkening of the skin or the or small corns or warts on your palms, soles or torso. Again, these symptoms by themselves do not prove exposure to arsenic. You should contact your doctor or health care provider if you believe you have any of these symptoms.

Our recommendation is to check your drinking water for arsenic. The level of arsenic in your water today is a good indication of what you have been consuming over a longer period of time, as the level of arsenic in groundwater doesn't appear to change quickly.

If you have your own well, or get water from a shared well that is not part of a public water supply system, have the well water tested. Your county health department may be able to provide advice on getting your well tested and the county may be able to pay for part of the cost. Testing for arsenic is not particularly expensive but it is important that proper procedures be followed when collecting the sample. Also make sure the sample is analyzed by a laboratory certified by the Department of Natural Resources for drinking water analysis and find out the lowest levels of arsenic the test can detect and measure. The test should be able to detect levels down to 1 µg/L.

If you obtain your water from a public water supply system, such as a municipality, check with the system operator. Public water supply systems are regulated by the Department of Natural Resources and are required to periodically test for arsenic, so the public water supply operator should know the latest test results. Some public water supplies using groundwater will be required to test for arsenic more frequently in the future. Under federal and state laws, public water supply systems will have to meet the new 10 µg/L standard by 2006.

Once I get the test results, then what?

For private wells, there are no state, federal, or local regulations that will require you to do anything if the results show you have arsenic levels above the new MCL of 10 µg/L. So you will have to use your own judgement. Because not all experts agree on the health effects of arsenic, the levels of arsenic that cause problems, or the relative risk compared to all the other things in your life, it can be confusing.

Based on a review of the current information, we suggest the following:

- Arsenic levels above 200 µg/L. This level is clearly cause for concern and we strongly suggest obtaining your drinking water from another source that is known not to have high levels. Alternatively, a home treatment device can be installed.

- Arsenic levels from 10 µg/L to 200 µg/L. Levels in this range will increase the risk of long term or chronic health problems. The higher the level, the greater the risk. Don't panic – remember, chronic conditions develop over a long period of time. Make plans to obtain water from another source or install a

home treatment system, especially if you plan on staying in the area for very long.

- Arsenic levels from 3 μg/L to 10 μg/L. Even though the new arsenic MCL is being established at 10 μg/L, some health experts feel it should be lower. If you have levels in this range, you may want to obtain water from another source or install a home treatment system, especially for small children, pregnant women, or mothers that are nursing. Data suggests that arsenic may affect small children differently than adults. Arsenic is found in mothers' milk and will cross the placenta to a fetus, both of which may affect development of a child.

Is there a problem with using water with arsenic for other purposes such as showering?

At levels below 50 μg/L, there should be no problem in using the water for showering or bathing or washing clothes. Washing dishes or using the water for cooking where the water is not consumed (for instance, cooking vegetables) should not pose a significant risk.

Can I treat the water to remove the arsenic?

There are home treatment systems that will remove arsenic. Reverse osmosis (RO) units will remove arsenic and are fairly common but, as with any treatment device, require regular maintenance to be effective. You should check with the manufacturer or the Iowa Department of Public Health to make sure the unit you are considering will remove arsenic to a level below 10 μg/L.

An alternative might be another well drilled to a deeper depth. If other, deeper wells in your immediate area have low no detectable levels of arsenic, a deeper well may be a solution, but there is no certainty a new, deeper well will yield lower levels of arsenic. Another alternative is to hook up to a public water system such as a rural or municipal water system that does not have detectable levels of arsenic in their water.

For public water supplies serving a large number of people, there are a number treatment techniques that can be used and the Environmental Protection Agency is investigating other techniques that may be more economical, especially for the smaller public water supplies.

Where can I find out more information?

If you want more information on the issue of arsenic and health effects, there are a number of sources. We suggest you read a variety of articles before making conclusions, rather than relying on only one source. The EPA's web site (http://www.epa.gov/safewater/arsenic.html) has information as well as links to other sources such as the National Academy of Sciences' report. A number of technical and trade magazines have had articles on arsenic over the past several years and you may want to search your library's database for references.

Feel free to contact the following people with your questions:

- For information on public water supply systems and their testing requirements as well as test results – Joe Zerfas, Iowa Department of Natural Resources, Des Moines, 515-725-0343.
- For information about health effects of arsenic in drinking water - Karen Buechler, Iowa Department of Public Health, Des Moines, 515-281-6596.
- For information on residential treatment units certified for arsenic removal – Bruce Middleton, Iowa Department of Public Health, Des Moines, 515-281-4680.
- For information on certified laboratories – Charlotte Lafarge-Henderson, Iowa Department of Natural Resources, 515-725-0341.

Listed below are the laboratories certified by the Iowa Department of Natural Resources (as of November 2001) to test for arsenic in drinking water and that have indicated they will analyze samples for homeowners for a fee. Certification status can change and you should always check to make sure the lab's certification is current. Other labs may be added to the list in the future.

Name	Address	Phone
Environmental Health Laboratories	110 South Hill Street South Bend, IN 46617	219-233-4777
Keystone Laboratories - Newton	600 East 17th Street South Newton, IA 50208	641-792-8451
Midwest Laboratories, Inc.	13611 B Street Omaha, NE 68144-3693	402-334-7770
MVTL - Nevada	35 West Lincoln Way PO Box 440 Nevada, IA 50201	515-382-5486
Nebraska Analytical Testing Laboratories, Inc	4123 South 67th Street Omaha, NE 68117	402-331-0935
Severn Trent Laboratories Chicago	2417 Bond Street University Park, IL 60466-3182	708-534-5200
TestAmerica Cedar Falls Division	704 Enterprise Drive Cedar Falls, IA 50613	319-277-2401
University Hygienic Laboratory	102 Oakdale Campus University of Iowa Iowa City, IA 52242	319- 335-4500
Water Quality Association	4151 Naperville Road Lisle, IL 60532	630-505-0160

Iowa Department of Public Health
Hazardous Waste Site Health Assessment Program

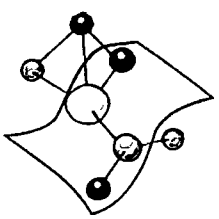
Chemical Exposures

Highlights: The Iowa Department of Public Health (IDPH), Hazardous Waste Site Health Assessment Program gives people information about harmful chemicals in their environment. IDPH staff can tell people how to protect themselves from being "exposed" or coming into contact with chemicals. This fact Sheet answers questions about chemical exposures.

What is exposure?
"Exposure" means that you have come into contact with a chemical, and it has gotten into your body.

How can exposures happen?
For a chemical exposure happen, there has to be a place where the chemical comes from. This place is called a source. A source could be a landfill, pond, creek, incinerator, tank, drum, or factory. There are many different sources of chemicals.

You could come into contact with a chemical at its source. Or, the chemical could move from its source to a place where you could come into contact with it.



Chemicals can move through the air, water, and soil. They can also be on plants or animals, and get into the foods you eat. The chemical has to get into your body to make you sick, or to have an effect on your health.

If you are ***not exposed*** to a chemical, ***it won't make you sick.***

How does a chemical get into your body?
If you are exposed, there are three ways a chemical could get into your body.

These are:
Breathing air that has the chemical in it, (sometimes called *inhalation*)

Eating or drinking something with the chemical in or on it, (sometimes called *ingestion*)

Getting it on your skin or touching something that has the chemical in or on it (sometimes called *dermal contact*).

If I am exposed to a chemical, will I get sick?
Not necessarily. It depends on a lot of factors about the exposure. It depends on the way the chemical got into your body.

It also depends on how much of the chemical got into your body. Sometimes a small amount of a chemical could make you sick. Other times, you would have to be exposed to a large amount of the chemical to get sick.

What factors will determine if I get sick?
Factors that play a part in whether you will get sick from a chemical exposure are:

- The type of chemical
- The amount (how much of a chemical you were exposed to)
- The duration (how long the exposure was)
- The frequency (how many times you were exposed.

Does everyone respond to chemical exposures in the same way?
No. People respond to chemicals in different ways. Some people may be exposed to a chemical and not get sick. Other people may be more sensitive to a chemical and can get sick from an exposure. (For example, children can be more sensitive to some chemicals and may get sick more easily than adults.) Some sicknesses would be caused only if you were exposed to a chemical for a long, long time.

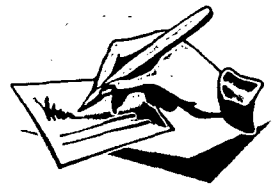
If you are ***not exposed*** to a chemical, ***it won't make you sick.***

How can I stop or reduce exposures to chemicals?
Once chemical exposures are identified, several strategies can be used to reduce or stop exposures from occurring. For example, if chemicals are found in private well water, an alternate water supply (bottled water) or water treatment can be used. Frequent hand washing can reduce exposures to chemicals in soils. Site-specific recommendations will be made by IDPH and environmental agencies to help people stop or reduce exposures.

Hazardous Waste Site Health Assessment Program Staff
The following staff are available to answer your questions or provide more information.

Stuart Schmitz, P.E.
Health Assessor
Phone: (515) 281-8707
Email: sschmitz@idph.state.ia.us

Sara Colboth
Health Educator
Phone: (515) 281-5894
Email: scolboth@idph.state.ia.us



Written requests should be made to:
Charles Barton, Ph.D., DABT
State Toxicologist
Hazardous Waste Site Health Assessment Program
Iowa Department of Public Health
321 E. 12th Street
Des Moines, IA 50319-0075