

Environmental Review Training: Contaminated Sites



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Contamination & Toxics Substances



What is Site Contamination?

The release of a hazardous or toxic chemical or substance, including petroleum products, in proximity to the project site in a concentration as may be harmful to the environment, humans or other living organisms



What regulations apply to contamination?

24 CFR 58.5(i)(2) & 24 CFR 50.3(i)

*“**All** property proposed for HUD program assistance shall be free of hazardous materials, contamination, toxic chemicals, gasses and radioactive substances **where** the hazard could affect the health and safety of occupants or conflict with the intended utilization of the property”*

Exposure Pathways

- » Soil
- » Surface Water
- » Ground Water
- » Airborne
- » Ingestion
- » Inhalation
- » Dermal Contact



Investigation for your ERR

- » The investigation/research should take more than a few minutes to complete
- » **Do not include list upon list with no explanation**
- » **Only include relevant information**



Unexplained Dirt Mounds



Buried Waste



Underground Tanks

Types of Investigation

Field Inspection (First Step)

- On Site Visit
- Google Earth/Maps

Environmental Compliance Search (MOST IMPORTANT)

- **Federal: Echo, Envirofacts, environmapper:**
<https://echo.epa.gov/facilities/facility-search/results>
- **NEPAssist:** [NEPAssist](#) | [US EPA](#)
- **State: Contaminated sites Database:**
<https://programs.iowadnr.gov/contaminatedsites/>
- **State: Leaking Underground Storage Tanks:**
<https://programs.iowadnr.gov/tanks/pages/advanced.aspx>.
- **NPL: National Priorities List (NPL) Sites - by State | US EPA**
- **CORRACTS: Search for Corrective Action (CA) Sites (epa.gov)**

Historic Land Use Search (May Help)

- *City Directory / Land Use Directory / Sanborn Fire Insurance Rate Map*

Field Inspection

What to look for:

- *Vents, pipes*
- *Under & above ground tanks*
- *Monitoring well*
- *Distressed or no vegetation*
- *Drums, containers*



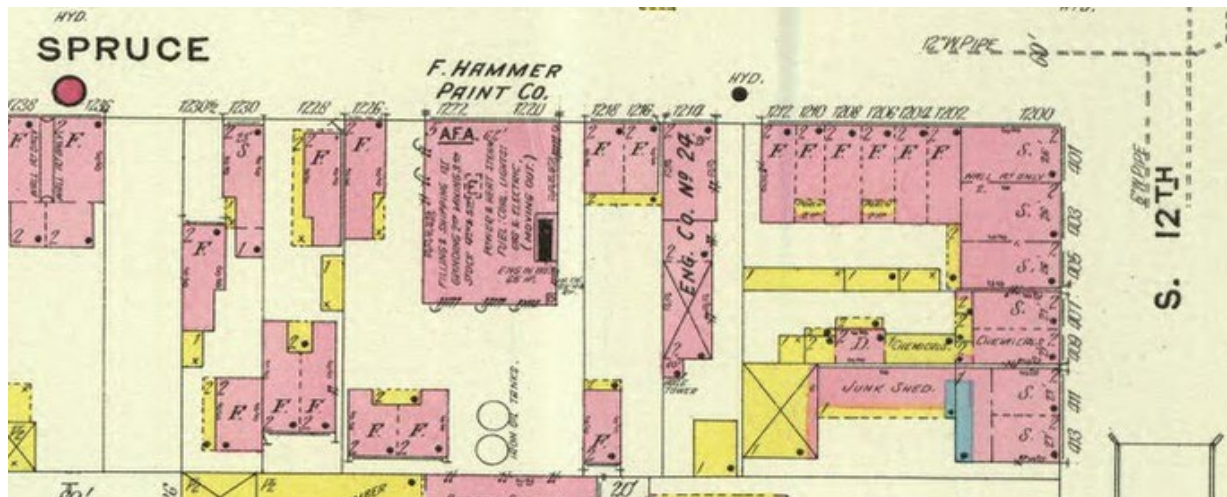
- *Pits, ponds or lagoons*
- *Stained soil or pavement*
- *Pungent, foul or noxious odors*
- *Dumped material , mounds of dirt, rubble, fill...*

Historic Land Use Search

Best used for new construction sites or vacant land

What to look for:

- Gas/Service Station
- Dry Cleaner
- Auto Repair
- Manufacturing Facilities
- Industrial Uses
- Recycling/Salvage Facilities
- Railroad yard/lines
- Engraving/Metal Working
- Timber/Wood Facilities

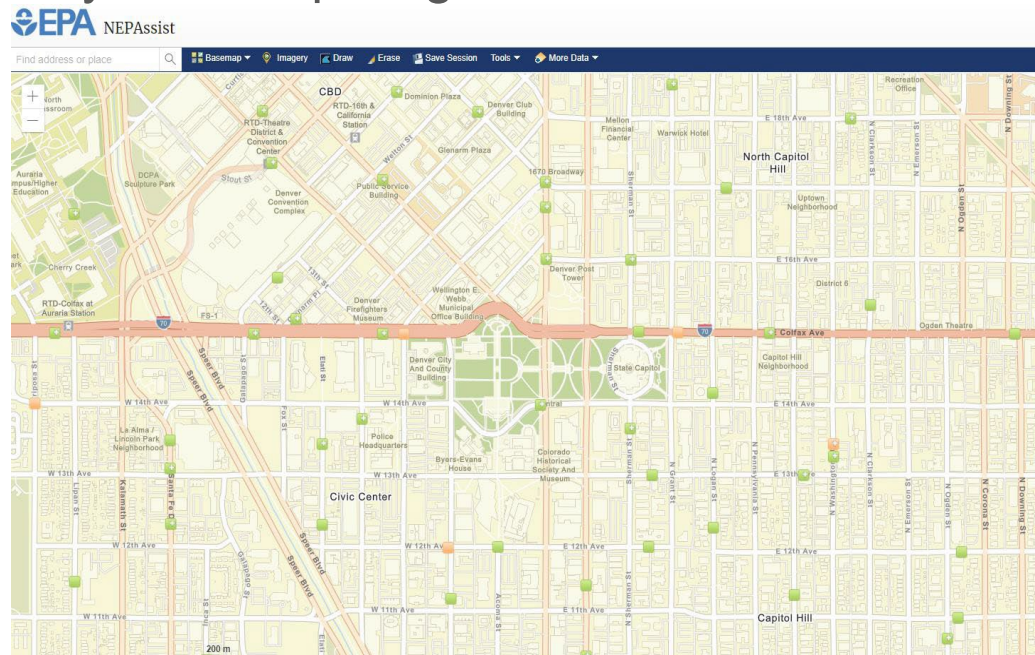


SANBORN MAP - St. Louis, Missouri, December 1908 #37

Environmental Compliance Search

» What To Look For:

- History of non-compliance
- Recent and/or significant violations
- Unresolved incidents
- Onsite, adjacent or nearby sites requiring environmental permits/regulations
- Corrective Actions
- Plume Maps
- Correspondence
- Clearance Docs
- Distance from project
- Land Use History



Search Distances

- » *Any Registered Tank*: Project site location and directly adjacent properties. (look at even if not ID'd as a problem)
- » *Leaking Underground Storage Tanks (LUST)*: ½ mile radius. Researched on DNR LUST website
- » *Brownfield Sites*: ½ mile radius. Found on DNR Contaminated Sites Website.
- » *CERCLIS*: ½ mile radius. Found on IDNR Contaminated Sites Website.
- » **NPL**: 1 mile radius / found on national web site; will also show on IDNR Site
- » **CORRACTS**: 1 mile radius / found on national web site; MAY also show on ECHO – but not always

Environmental Compliance Search

❖ Federal databases

- *ECHO (best choice)*
- *EnviroMapper/NEPassist*
- *NPL (good site for detail)*
- *CORRACTS*

❖ State Databases

- *Contaminated Sites*
- *Tanks - LUST*
- *UST/LUST*

The image shows two overlapping screenshots of the Iowa Department of Natural Resources website. The top screenshot displays the 'CONTAMINATED SITES' page, which includes a header with the Iowa logo and navigation links, a main heading 'Contaminated Sites', a brief description of the section's purpose, and two search boxes: 'Site Search' and 'Document Search'. The bottom screenshot shows an 'Advanced Search' form for UST/LUST sites, featuring various search criteria like Registration Number, Site Name, Address, City, County, and Status, along with a 'Search' button and a 'Disclaimer' at the bottom.

Look to see if sites are on or near the project site AND research to see if any of those sites will impact the project. Sometimes, you will have to go deep into detail to make that determination or contact DNR or EPA. If you still can not resolve issues, – may need a *Phase I Study.....(rare on our projects).*

Phase I Analysis

- » Objective: Identify conditions indicative of release or threatened release of hazardous substances
- Used primarily for commercial real estate transactions and CERCLA liability protection
- But not exclusively driven by CERCLA liability protections.....~ 45% percent are conducted to assess business environmental risk concerns
- Does not specifically delineate contamination or quantify risk



Scope of a Phase I

Surficial

- Phase Is do not: invasively test for contaminants, delineate contamination, quantify a risk

Non-Scope Items

- Generally, Phase Is do not include an evaluation of asbestos, lead, radon or mold
 - Can be added to scope of work

Vapor Encroachment

- Vapor Encroachment Screening to identify vapor intrusion as a potential concern included in current standard.
 - Standard for vapor screening: ASTM E 2600-15

Phase I Contents

An EP completes investigatory actions to gather information about the potential for a contamination concern onsite and creates a report.

What is the standard?

ASTM E1527-21 “Standard Practice for Environmental Site Assessments, Phase I Environmental Site Assessment Process.”



Phase I Language

Findings

Identification of sites/facilities that could present a release or threat of release to the subject site

Opinion

EP utilizes knowledge and experience to opine on why the “finding” is/is not a concern based on the threat of release.

Conclusion

A statement by the EP whether a finding is *Recognized Environmental Condition* (REC), *Controlled REC* (CREC), *Historic REC* (HREC)

How to Use a Phase I for HUD

The Phase I should be used as a tool to identify contamination issues onsite and evaluate the risks as required by HUD regulation.

HUD Guidance:

[Using a Phase I
Environmental Site
Assessment to Document
Compliance with HUD
Environmental Standards at
24 CFR 58.5\(i\)\(2\) or 50.3\(i\)](#)



Phase I Walkthrough

EP Provides REC Determination

ATC reviewed potential sources of COCs from the facilities reported on the EDR database report and other historical sources.

The following condition was identified as a VEC:

- Two different filling stations were located in the southeast corner of the property from at least 1925 until at least 1940 and from at least 1950 until at least 1975. There are no proper closure records related to the removal of petroleum storage tanks from either filling station.

This VEC represents a *recognized environmental condition* to the property.

Evaluates incident information to project
exposure pathways

Responses to a Phase I

- RE or HUD's contamination review may not be complete after a Phase I
- Depending on the results, further due diligence may be necessary

Potential Actions

- Request additional information/clarification from the EP
- Order a Phase II to further evaluate (rare cases)
- If you get to Phase II level – CALL US

DNR: Leaking Underground Storage Tanks

- » <https://programs.iowadnr.gov/tanks/pages/advanced.aspx>
- » Click on LUST at top of page
- » Enter City

5/31/2018 1:59:36 PM user: Login

Advanced search UST Registration Number for Go

Advanced Search

UST LUST AST UST 3rd Party Inspections UST Certifications

Leak Number:

Leak Risk Classification: High Risk

Site Name:

Site Address:

Site City: ALBERT CITY

County: --County--

Site Status: --Status Type--

Search

Export Results

Leak No.	Leak Classification	Registration No.	Name	Address
7LTF19	High Risk	198605721	JIMS TIRE & SERVICE	118 MAIN Albert City, IA 505100000

- » LUST
- » Risk (high)
- » City
- » Click on red arrow

- » Include this page in your ERR documentation

DNR: Leaking Underground Storage Tanks

- » Determine if 118 main from previous screen is near your project site. If it is, click red arrow and then,
 - Click *Remediation, CA/Tier 3, documents* on the toolbar
 - May need to check other tabs on toolbar for other sites for info
 - In this case a document revealed that they are going to conduct testing.
 - Next

IOWA DEPARTMENT OF NATURAL RESOURCES
IOWA COMPREHENSIVE PETROLEUM UNDERGROUND STORAGE TANK FUND

RIGHT OF ENTRY AND INDEMNITY AGREEMENT

This Agreement is made this 20 day of March, 2018, by and between Breenhills Co Property Owner", and Seneca Environmental Services ("SES") (jointly the "Parties").

The Iowa Department of Natural Resources ("IDNR") and the Iowa Comprehensive Petroleum Underground Storage Tank Fund Board ("FUND") have jointly entered into a contract ("Contract") with SES to conduct certain environmental corrective action at the underground storage tank (UST) site located at the former Jim's Tire and Service site, 118 Main Street in Albert City, Iowa (the "Property") and identified by IDNR Registration No. 198605721 and LUST No. 7LTF19.

This corrective action may involve assessment and corrective action activities including placement of temporary boreholes and permanent groundwater monitoring wells, periodic on-site sampling of soil and groundwater, testing for vapors in nearby confined spaces, sampling of tap or well water where applicable, a general survey for receptors of concern, and other remedial action. The Parties wish to establish reasonable terms for access to the Property, now and in the future.

The Parties, for valuable consideration, agree to the following:

1. Property Owner is an owner of the Property and authorized to grant access to the real estate as provided in this agreement.
2. Property Owner agrees to allow SES, its agents, employees and assigns, the right to enter the Property for the purpose of completing an environmental risk assessment and performing corrective action.

- » Include this documentation and any conversations/correspondence in your ERR docs

DNR Contaminated Sites

- » <https://programs.iowadnr.gov/contaminatedsites/>
- » Click on Site Search on the landing page
- » Look most closely at those that are on or directly adjacent to your project site – and anything else if less than ½ mile from site.
- » Click on ID number on left hand side for more info

CONTAMINATED SITES

Site Search

Sites may be searched by entering text in one text boxes at the base of the columns (name, address, city or program). Other search criteria may also be entered the general text box including county, zip code, project manager, alternative name, or ownership type.

The system will start sorting as a search is initiated in the general text search box; pressing an enter or return key isn't necessary. The best results are obtained by using the column text boxes in combination with the general text box to narrow the search list.

Copy CSV Print

Show entries Search:

ID	Name	Address	City	Program
848	Albert City SBA		Albert City	EPA Lead
1822	Jim's Tire Service		Albert City	Chapter 133
	<input type="text" value="Search"/>	<input type="text" value="Search"/>	<input type="text" value="Albert City"/>	<input type="text" value="-- (All) --"/>

Showing 1 to 2 of 2 entries (filtered from 2,228 total entries) Previous **1** Next

DNR Contaminated Sites

» Jim's tire service

CONTAMINATED SITES

Jim's Tire Service
Chapter 133 - Closed
, Albert City , IA
Project Manager:

Detail

Detail

Documents

Location

Background

Summary

Site Search

ID	1822
Name	Jim's Tire Service
Alternate Name(s)	---
Origin Type	NA
Site Type	Unknown
Institutional Control(s)	---
Ownership	Not Specified
Project Manager	

- » Look at top left to see if it says CLOSED, if not dig for more info
- » Include this page in your ERR documentation

» <https://echo.epa.gov/>

The screenshot shows the ECHO web application interface. At the top, there is a search bar with 'Altoona, Iowa' entered. Below the search bar is a satellite map of Altoona, Iowa. To the right of the map is a 'Facility Summary' sidebar with search criteria and filters. Below the map is a table of facility data. The 'Current Significant Violations' column is highlighted in yellow.

Facility Name	Mapped	Street Address	City	State	FRS ID	Reports	Current Significant Violations	Quarters Non Comp (3 yrs)	Inspections (5 yrs)	Formal Enforcement Actions (5 yrs)
VAN DYCK FURNACE COMPANY INC		1009 8TH STREET SW	ALTOONA	IA	110001762138		N	0	0	
ALTOONA, CITY OF		901 17TH AVENUE SOUTHWEST	ALTOONA	IA	110013091705		N	0	2	
ATM TED'S BODY SHOP INC		1007 8TH ST. SW	ALTOONA	IA	110063225264		N	0	2	

- » Look to make sure none have *Significant Violations*
- » If they do, see what the violation is about and if it will affect your project
- » **Include this screen shot and any other information in ERR documentation**

National Priorities List

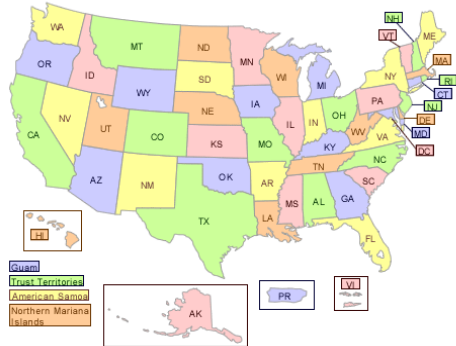
[Superfund](#)

CONTACT US

National Priorities List (NPL) Sites - by State

[\[View NPL Sites - by Site Name\]](#) | [\[View NPL Sites - by Date\]](#)

Choose a state or territory from the map or list below.



This page provides information about sites listed on the NPL; including Site Name, City, Site EPA ID, Listing Date, Site Score, and Federal Facility Indicator. Links to the Site Narrative, Site Progress Profile, and Federal Register Notice are provided in the Additional Information column. The Site Location column contains a link to a map with the site location. Select a state from the map for a list of NPL sites in that state.

(1334 Sites as of September 16, 2022)

- » Select for Iowa
- » If you find a site in the community, it should also show up in the IDNR web site
- » Include a screen shot and any other information in the documentation

CORRACTS



Environmental Topics

Laws & Regulations

About EPA

Search EPA.gov



You are here: [EPA Home](#)>>[Cleanups](#)>>Cleanups In My Community (CIMC)

[CONTACT US](#)

[SHARE](#)



Search for Corrective Action (CA) Sites

On this page:

- [Search RCRA Corrective Action Sites](#)
- [Cleanups in My Community Search](#)

Search RCRA Corrective Action Sites

Search this table for Corrective Action Sites around the Nation.

- Click the column header to sort or filter the table

- To directly view any profiles, click on the associated site name found in columns designated as "Site Name"

Select a Region or State

Region

State

[Reset Filters](#)

Rows

1 - 15 of 208

- » Select for Iowa
- » If you find a site in the community, it MAY also show up in ECHO – if not, get detail from this site
- » **Include a screen shot and any other information in the documentation**

Environmapper

» Like NEPAssist and Environfacts, may be useful in focuses in on and finding individual site detail, but is rather general in nature

EnviroMapper

Search Place: Mason City, Iowa

Home | Help

EPA United States Environmental Agency

Basemap Tools More Data Search Envirofacts Find address or place

Search Envirofacts by Zip Code:
Enter 5-digit Zip Code (e.g., 60085)
52205
Search Clear
of facilities found: 37
Download

EnviroMapper®

Iowa DNR, Esri Canada, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, METI/NASA, NGA, EPA, USDA

Asbestos



Air Toxics and the Clean Air Act (1990 amd.)

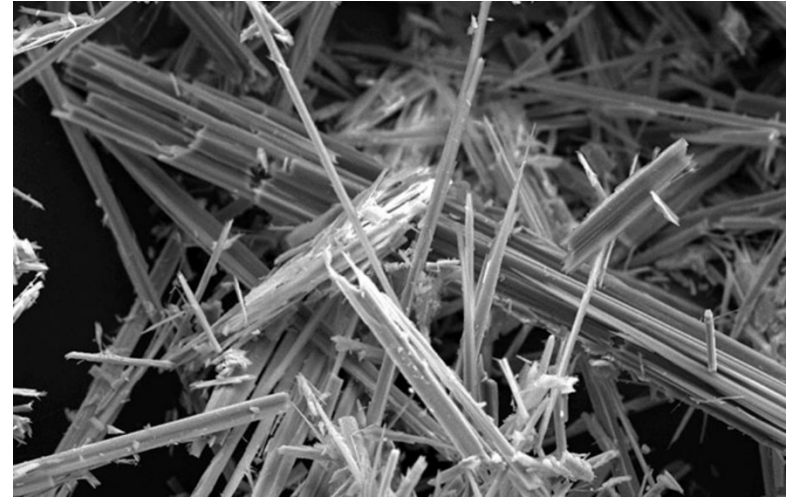
☐ Air Toxics – a.k.a “**Hazardous Air Pollutants**” (HAPS) - Pollutants known or suspected to cause cancer or other serious health problems, or cause adverse environmental effects

☐ 183 HAPs currently listed (carcinogens, mutagens or reproductive toxins), including:

- **asbestos**
- **radon**
- **benzene**
- **perchloroethylene**
- **mercury**
- **lead compounds**
- **chromium**



Asbestos



Asbestos Hazards



- ❑ **Federal:** *National Emission Standard for Hazardous Air Pollutants (NESHAP) (40 CFR Part 60, subpart M)*
 - ✓ (EPA) Environmental Protection Agency
 - ✓ (OSHA) U.S. Occupational Safety and Health Administration

- ❑ **State:** *NESHAP implementation is delegated to States air quality programs have been delegated EPA's responsibility for the regulation of asbestos inspection, abatement, cleanup & disposal*

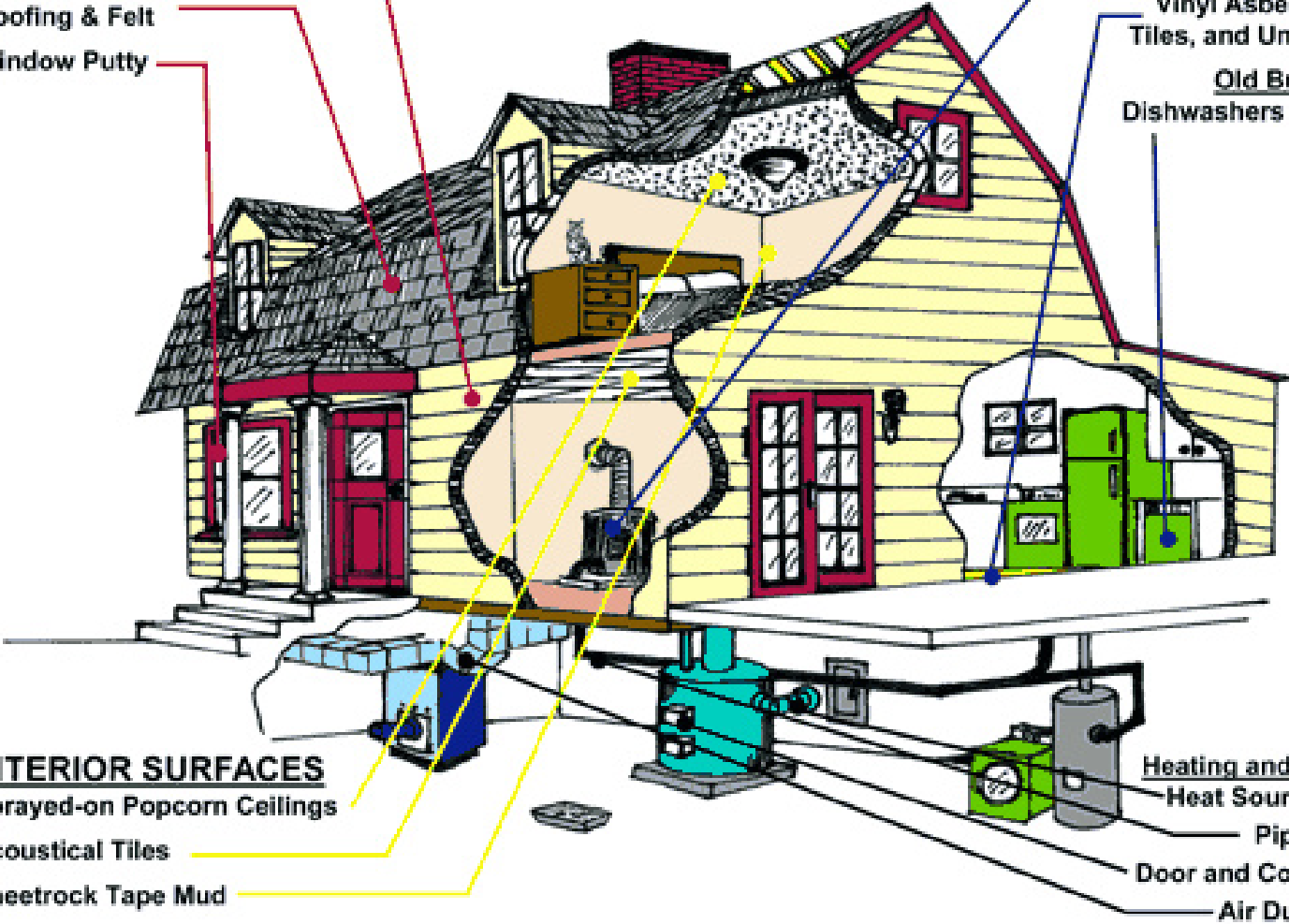
Asbestos Hazards

EXTERIOR SURFACES

- Cement Asbestos Siding
- Cement Asbestos Roofing & Felt
- Window Putty

MISCELLANEOUS

- Woodstoves
- Flooring:
Vinyl Asbestos Sheets, Tiles, and Undersheeting
- Old Built-In Items:
Dishwashers and Ranges



INTERIOR SURFACES

- Sprayed-on Popcorn Ceilings
- Acoustical Tiles
- Sheetrock Tape Mud

- Heating and Ventilation:
Heat Source Covering
- Pipe Insulation
- Door and Cover Gaskets
- Air Duct Covering

Applies to all building renovation or demolition activities

NESHAP **not** triggered for:

- ✓ small quantities - if the disturbed area is below threshold of 80 linear meters or 15 square meters

- ✓ Residential buildings provided the project consists **solely** of a single one-to-four unit (SF) residential building (40 CFR 61.141)

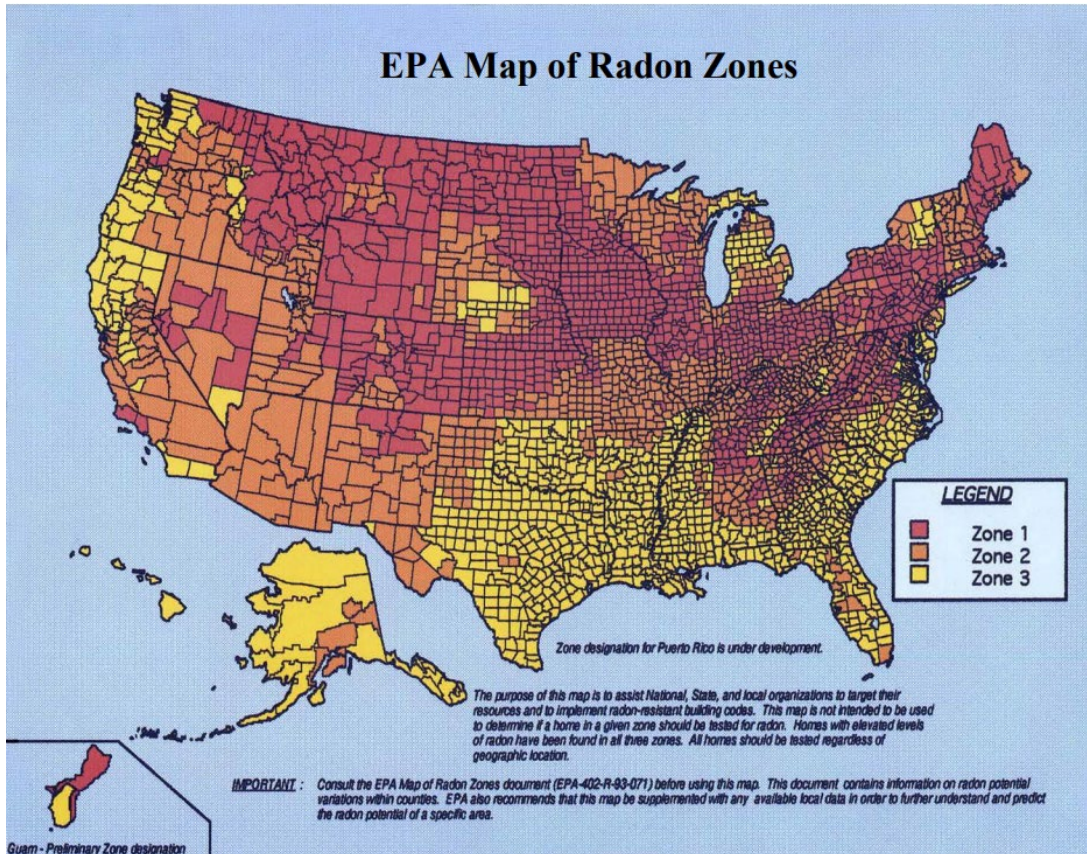
ALL SINGLE-FAMILY HOUSING REHAB IS EXEMPT BUT WATCH FOR UPPER STORY, (HSGU) – IT IS NOT EXEMPT BECAUSE BUILDING IS NOT SOLELY RESIDENTIAL

NESHAP requirements include:

1. **Notification** to State
2. **Inspection** (thorough) for asbestos
3. **Abatement** of all **friable** and any **non-friable** asbestos that will become friable if it will be disturbed
4. **Disposal** in approved landfill

Licensed contractors required for abatement

EPA Map of Radon Zones



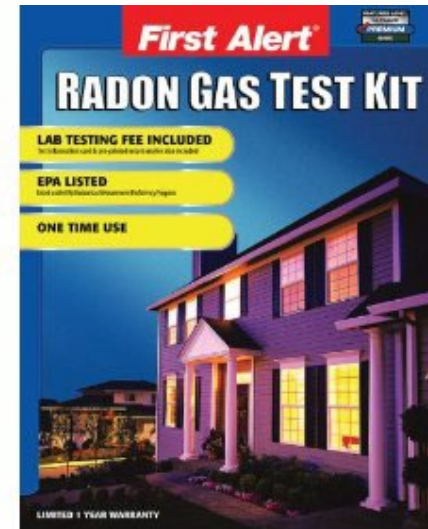
- *Radon* is an invisible potential killer
- *Radon* is VERY common in the Midwest – in Iowa, we are in a Zone 1= hotspot
- *Radon* is a colorless, odorless gas that permeates common building materials
- *Radon* is mostly found in basements and the 1st floor of homes
- *Radon* is the #2 cause of lung cancer
- *Radon* testing is the only way to know if it is present in the home
- *Radon* can be mitigated by venting it from below the slab/basement to the outside

ALL CDBG owner-occupied housing must be tested for radon:

- Radon information on IEDA website
- Activated Short Term Charcoal test will be used: ALA hotline 1-800-383-5992 to order kits
- Brochures for homeowners can be found here:
<http://healthhouse.org/radon/>
- 12 hours prior to testing windows and doors should remain closed
- While testing – avoid whole house fans, AC set to recirculating mode, thermostat set at 75 degrees (+/- 5)

Test Kit placement:

- Lowest *livable* area of the home
- Between 20 in. and 6 ft. from the floor
- At least 1 ft. from walls
- At least 3 ft. from doors and windows
- 4 in. away from any objects
- 20ft from any air flow devices (A/C, etc.)
- Away from furnaces or washer/dryers
- Test kits should be hung using clear plastic hook
- Test for 3-7 days



Radon

Submit Test:

- Test kit should have mailing instructions. The initial cost of the test includes processing
- On the submittal form fill out:
 - name of the homeowner
 - Address
 - grant administrator's email address
- Each test includes a serial number which can be used to look up test results online at Radon.com.



http://www.radon.com/radon/radon_results.html

Test Results:

- If above 4 picocuries per liter, the home has radon above the recommended exposure
- If above, you can retest
- Have homeowner sign off that they have received the radon test results regardless of the level of radon in the home

Options:

- If the budget allows you should mitigate / then retest to assure mitigation
- You are not required to mitigate – get sign-off from owner though

To find a mitigation specialist in your area:

<http://idph.iowa.gov/radon/fix>

How do I show I have considered this.....

In the Statutory Checklist:

<p>4. Contamination and Toxic Substances [24 CFR 58.5(i)(2)]</p>	<input type="checkbox"/>	<input type="checkbox"/>	<p>http://coastalmanagement.noaa.gov/mystate/welcome.ntml</p> <p>Project location will not be affected by any contaminated or Toxic substances. A field inspection, land use search, and review of environmental compliance were conducted using the All sites in proximity were in compliance. EPA EnviroMapper: http://www.epa.gov/emefdata/em4ef.home. All sites in proximity were in compliance. IDNR contaminated sites database also searched: https://programs.iowadnr.gov/contaminatedsites/pages/search.aspx No sites were discovered in vicinity of the project location and no tanks were registered on the site. IDNR storage tank database was searched: https://programs.iowadnr.gov/tanks/pages/advanced.aspx. No leaking sites were discovered in vicinity of the project location and no tanks were registered on the site.</p> <p>Address RADON: Rehabilitation projects should test for radon Address LEAD: Rehabilitation projects Address ASBESTOS: single family housing exempt, but other rehabilitation required.</p>
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Two steps needed to show compliance documentation:

1. Description in the checklist
 - **Make a statement: project will or will not be affected**
 - **Why is this true: field inspection, list websites**
2. Supporting documentation in Appendix
 - **Screenshots/print outs from websites**

END OF TRAINING

For Further Information Contact:

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