NORTHSTAR ENVIRONMENTAL TESTING, LLC

www.NorthStarTesting.com

Asbestos • Lead Paint • Mold • Indoor Air Quality • Industrial Hygiene

PRE-DEMOLITION INSPECTION: *ASBESTOS & LEAD-BASED PAINT*

City of Whitewater

Site:
116 E Main Street
Whitewater, WI 53190

Building:
Commercial (printing shop)

Inspection Date: October 29, 2024
Report Date: November 8, 2024

NorthStar No. 240-1327

Central Wisconsin 715.693.6112
Fox Cities 920.422.4888
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Sheboygan 920.422.4888

November 8, 2024

City of Whitewater
c/o Bonnie Miller
312 West Whitewater Street
Whitewater, WI 53190

Project:	Pre-Demolition Inspection: Asbestos and Lead Paint
Site:	116 East Main Street Whitewater, WI 53190
Building:	Commercial (printing shop)
Site Date:	October 29, 2024
NorthStar No.	240-1327

NorthStar Environmental Testing, LLC (NorthStar) was contracted by Bonnie Miller on behalf of the City of Whitewater to complete an inspection for the presence of asbestos containing materials (ACM) and lead-based paint (LBP) prior to the demolition of the commercial building located in Whitewater, Wisconsin. The inspection was conducted by James Gower of NorthStar on October 29, 2024. Due to occupancy and limited access, a follow up inspection with destructive sampling will be necessary.

Assumed asbestos containing materials (electrical panels) were identified which will require abatement prior to demolition. Roofing materials are assumed to contain asbestos and require proper disposal or additional testing. No lead-based paint was found for surfaces tested. Please review the report in its entirety for more specific information.

Prepared by:
NorthStar Environmental Testing, LLC.
1320 Mendota Street, Suite 120
Madison, WI 53714

Provided to:
City of Whitewater
c/o Bonnie Miller
312 West Whitewater Street
Whitewater, WI 53190

NorthStar Environmental Testing, LLC.

Dave Barrett
Operations Manager
AII-01397 / LRA-01397

James Gower
Project Superintendent
AII-268367 / LRA-268367

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November 8, 2024

City of Whitewater
312 West Whitewater Street
Whitewater, WI 53190

Project:	Pre-Demolition Inspection: Asbestos and Lead-Based Paint
Site Address:	116 East Main Street Whitewater, WI 53190
Survey Date:	October 29, 2024
NorthStar No.	240-1327

NorthStar Environmental Testing, LLC (NorthStar) was authorized by Bonnie Miller on behalf of the City of Whitewater to conduct a pre-demolition survey for the presence of accessible suspect asbestos containing materials (ACM) and lead-based paint (LBP) for the following site:

INSPECTION SUMMARY:

Site Address:	116 E Main Street Whitewater, WI 531906		
County:	Walworth		
Structure Type:	Commercial (former shop / apartment)		
Building Age:	1960's approx.		
Size:	2,000 sf		
Floors	1		
# of Structures:	1		
Inspector:	James Gower	Certification:	AII-268367
Company Cert:	NorthStar Environmental Testing, LLC	Certification:	DHS-925800
Survey Date:	October 29, 2024		
Comments:	Primary building materials: concrete slab foundation, concrete block walls, and built-up / rubber roofing. The building was occupied at the time of inspection which limited accessibility & the inspector's ability to sample all required materials. Follow-up destructive sampling will be necessary.		

ASBESTOS SAMPLING SUMMARY:

Number of Samples:	33		
Number Analyzed:	28 (layers)	Point Count:	0
Asbestos Materials:	**n/a**		
Assumed ACM:	**Roofing Materials & Electrical Panels**		
Laboratory:	Eurofins CEI, Inc. NVLAP: 101768-0		
Analysis Date:	November 5, 2024 (reported)	Point Count:	n/a

The attached Asbestos Sample Material Log details additional sample analysis data.

ASBESTOS CONTAINING MATERIAL SUMMARY:

ACM that will require abatement prior to disturbance by demolition:

Material	Bldg Level	Building Area	Quantity (approx)	Category/Comment
[1] Electrical Panel Interior	1	Storage	2 sf (2 each)	Cat II Non-Friable Assumed ACM

[1] Electrical panels, boxes or components were not sampled due to potential electrical hazard. These components should be assumed ACM unless sampled to prove otherwise.

Non-Friable ACM that *may remain in place for mechanical demolition unless the attached materials (concrete, wood, metal, etc.) will be recycled, reused or crushed:

Material	Bldg Level	Building Area	Quantity (approx)	Category/Comment
[2] Roofing Materials	Roof	Roof: Throughout	2,400 sf 1,300 sf	Cat I Non-Friable Assumed ACM

[2] These non-friable ACM are not likely to become friable during the course of demolition but would interfere with concrete recycling or waste sorting and therefore abatement is recommended.

***Any ACM allowed to remain in place during demolition must remain non-friable throughout the demolition process and would require proper landfill disposal. Abatement is recommended for any non-friable ACM that may become friable due to the demolition process. The Wisconsin Department of Natural Resources (WDNR) can be consulted with any specific questions regarding these issues.**

Material quantities are listed according to visible estimates at the time of the survey. It is recommended that all quantities be further verified by the building owner and/or an abatement contractor prior to project design, bidding, budgeting and/or WDNR notification purposes.

The following areas were inaccessible or excluded at the time of inspection and may contain additional quantities of suspect asbestos containing materials:

Inaccessible/Excluded Areas
The building was occupied, and the occupant's contents remained within the building at the time of inspection which may have limited accessibility. A follow-up inspection including additional destructive will be necessary. This will be especially important for the flooring materials.
The back-office portion of the building was inaccessible at the time of our inspection.
Concrete block wall cavities were not accessed and the presence of asbestos containing vermiculite insulation is possible.
Any additional suspect materials, if encountered, which differ from those tested should be assumed to contain asbestos and sampled if/when necessary.

LEAD-BASED PAINT (LBP) TESTING SUMMARY:

Testing Date:	October 29, 2024		
Contact:	Bonnie Miller (City of Whitewater) Phone: 920.817.4026		
Work Area:	Pre-Demolition		
Materials Tested Pre-Demolition:	Testing was limited to representative accessible cementitious surfaces (concrete, concrete block, brick, etc.) likely to be impacted by the planned demolition. Other areas or surfaces should be assumed to contain lead unless additional testing proves otherwise.		
LBP for Demolition Items:	**No LBP was identified for surfaces tested.**		
Comment:	For demolition and disposal, the State of Wisconsin defines lead-based paint as that which is equal to or greater than 1.0 mg/cm^2 by XRF.		
Inspector:	James Gower	Certification #:	LRA-268367
Lead Company:	DHS-925800	Expiration Date:	08/01/2025
Testing Equipment:	Viken PB 200e, Serial Number: 1122		

LEAD-BASED PAINT TEST RESULTS: (Positive Results Only)

Testing for lead-based paint analyzes all layers of paint on a particular surface area simultaneously. The testing does not specifically identify which layer or color of paint contains lead. A positive testing location indicates that some layer of paint on that surface contains lead in paint equal to or in excess of 1.0 mg/cm².

Reading No	Wall	Structure	Location	Member	Paint Condition	Substrate	Color	Lead (mg/cm²)
No LBP was detected at or above 1.0 mg/cm^2 for the surfaces tested.								

Please see attached "Lead-Based Paint XRF Testing Data" & site diagram for specific areas tested.

SURVEY LIMITATIONS:

Sample results, quantities and recommendations are for areas of the building that were accessible to us during the investigation. Additional assumed ACM or LBP that may have been located in spaces not accessible during our investigation, hidden from view, or not sampled at the client's request may require additional sampling prior to disturbance by renovation or demolition activity (see notes if applicable).

Areas that were inaccessible and not tested or inventoried during the investigation may have included: certain wall or ceiling cavities; electrical components/wiring; gasket material; fire door interiors; boiler, tank, and vessel interiors; equipment components and interiors; chimneys/flues/stacks; spaces requiring confined space entry procedures; structurally unsafe areas; isolated or inaccessible building areas; underground or buried components; and mechanical spaces or equipment that would require extensive demolition or dismantling to provide adequate access for material identification or sampling.

Roofing materials including built-up and membrane roofs, and associated flashings and coatings may have been assumed to be ACM (see applicable inspection notes).

Building materials or substrates that were exempt from sampling may have included metal, glass, wood, or fiberglass (exempt by WI DHS 159.04 (50)). Additional materials not accessible or not sampled during the survey may have included items such as miscellaneous caulks, sealants and construction adhesives that were not readily accessible to sample (may be located between layers of building components); concrete, concrete block, brick, stone, foam insulation, and carpet. These materials are typically non-friable in nature but may require further sampling to confirm or deny the presence of asbestos.

Additional suspect materials encountered during renovation or demolition activity that differs from materials sampled or described during this survey must be assumed to contain asbestos and be managed as ACM, abated or sampled to determine asbestos content prior to disturbance.

Material quantities are listed according to visible estimates at the time of the survey. It is recommended that all quantities be further verified by the building owner or abatement contractor prior to project design, bidding, budgeting and/or WDNR notification purposes. Material quantification was not performed for any sampled material found to be asbestos free or containing 1% or less asbestos.

ANALYTICAL DISCUSSION:

Bulk sample analysis for asbestos was performed by polarized light microscopy (PLM); method Bulk EPA 600. Samples showing a result of "None Detected" were found to contain no asbestos in any analyzed portion of the sample.

EPA defines an ACM as a material that contains asbestos unless the asbestos concentration is found to be 1% or less asbestos by PLM. Materials confirmed by a point count result of 1% or less asbestos may be treated as a non-ACM. The building owner or client should be aware that exposure to asbestos is still possible when disturbing materials with 1% or less asbestos (trace amount) present and that OSHA worker protection procedures may be necessary.

REGULATORY RECOMMENDATIONS: (ASBESTOS)

Wisconsin Department of Health Services (WI DHS); Wisconsin Department of Natural Resources (WDNR); Environmental Protection Agency (EPA); Occupational Safety & Health Administration (OSHA)

All friable ACM as well as non-friable ACM that would likely be made friable by intended demolition processes are required to be abated prior to disturbance.

Non-friable ACM (confirmed or assumed) remaining during demolition must be disposed of properly as demolition debris at an approved landfill (landfill requirements vary). Non-friable ACM typically require abatement prior to any material recycling procedure. For any building that will be subject to burning, all confirmed and assumed ACM must be removed. Materials containing any amount of asbestos including materials with 1% or less (trace amount), may still result in an exposure regulated by OSHA. Protective equipment or a negative exposure assessment for personal exposure may be required.

Abatement shall be performed by an abatement company utilizing trained and certified worker/supervisor and further licensed as an asbestos company by WI DHS, Asbestos Regulation 159.

Refer to WDNR 447 and WI DHS 159 for complete information on requirements for asbestos abatement and asbestos material disposal. Questions regarding asbestos abatement issues can be directed to the WDNR Asbestos Program Coordinator at (608) 266-7718. ***Important*** additional information on the proper management of asbestos, recycling concrete, the demolition process, and other materials that must be managed prior to demolition (light bulbs & ballasts, mercury & freon containing devices, etc.) can be found at:

- WI DHS http://dhs.wisconsin.gov/asbestos/
- WDNR http://dnr.wi.gov/topic/Demo/Asbestos.html
- WDNR https://apps.dnr.wi.gov/doclink/waext/wa651.pdf
- OSHA https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.1101

REGULATORY RECOMMENDATIONS: (LEAD-BASED PAINT)

Wisconsin Department of Health Services (WI DHS); Wisconsin Department of Natural Resources (WDNR) Environmental Protection Agency (EPA); Occupational Safety & Health Administration (OSHA); Housing and Urban Development (HUD)

The EPA and HUD defines LBP as equal to or greater than 1.0 mg/cm² measured by X-ray fluorescence (XRF) analysis, or 0.5% (5000 ppm) measured by weight through laboratory analysis. The State of Wisconsin has adopted the same definition of lead-based paint (primarily for residential HUD applications and for building demolition/disposal).

For worker exposure applications, lead in any quantifiable amount, and disturbance of the material creating dust and/or fumes and subsequent potential worker exposure would be regulated by the OSHA Lead in Construction Standard (29 CFR 1926.62).

Building materials coated with LBP that would likely be impacted or disturbed by intended renovation processes require special handling prior to or during disturbance (controlled work area, wet methods, hepa assisted tools or vacuums, avoiding prohibited methods – see OSHA or WI DHS regulations). If LBP is removed from the underlying substrate resulting in accumulated lead waste, additional work practices, disposal methods or testing of the waste by TCLP method may be required.

Our non-destructive testing by XRF has been performed in an attempt to screen for areas with quantifiable lead above regulatory limits on painted substrates. The reportable limit of detection is essentially 1.0 mg/cm² by XRF analysis and therefore paint chip analysis would be recommended for a more accurate determination of lead in paint below this level or to rule out lead in any quantifiable amount.

REGULATORY RECOMMENDATIONS: (LEAD-BASED PAINT) continued:

The testing performed was limited in scope and does not constitute a full lead paint inspection. Testing for lead in paint was conducted to assist with planning in regard to lead-safe construction practices and/or disposal or recycling activities. A surface-by-surface visual assessment of painted components was conducted at the property to determine which surfaces to test. Renovation activity beyond the anticipated work scope specified at the time of our site visit may require additional testing prior to disturbance.

Inaccessible areas hidden from view or contained within or behind other building materials may contain additional areas of suspect LBP. Any additional surfaces not specifically identified should be assumed to contain LBP unless tested and proven otherwise.

The calibration of the XRF analyzer was verified before and after testing by taking three readings from a source known to contain 1.02 mg/cm^2 lead (NIST Standard Reference Material). The three positive calibration readings were followed by a sample on bare wood containing no LBP.

Concrete, brick, or stone coated with LBP require disposal in a WDNR approved landfill and may require additional Toxicity Characteristic Leaching Procedure (TCLP) testing to further evaluate the waste. Concrete, brick, or stone that is not coated with LBP may be considered clean for recycling purposes **if other requirements are met**. Please refer to the WDNR Publication WA 605, Concrete Recycling and Disposal Fact Sheet. This publication contains **important** information on the recycling process along with who to contact at the WDNR for additional clarification, information, and approval; and can be found at:

- https://apps.dnr.wi.gov/doclink/waext/WA605.pdf

Reuse of clean concrete is exempt under s. NR 500.08(2)(a), Wis. Adm. Code. Certain environmental performance, location and operational requirements apply. Please review these requirements [s. NR 504.04(3)(c) and s.NR 504.04(4)] before placing used concrete on the land. For more information about this disposal exemption, refer to a separate frequently asked question, *What is defined as "clean fill" that does not have to be taken to a landfill?*, on the DNR website at:

- http://dnr.wi.gov/topic/Waste/SolidFAQ.html

REMARKS:

The survey and subsequent report have been performed according to applicable regulations and generally accepted industry standards and practices in this locality under similar conditions. Information provided to us by the building owner/occupant, client or other interested party that may have been utilized in the performance and reporting of the survey was accepted in good faith and can only be assumed to be accurate. The findings and recommendations made are representative of our professional opinion based on currently available information; no other warranty is implied or intended.

Please contact us if you have any questions regarding the presented information or the project in general.

Sincerely,
NorthStar Environmental Testing, LLC.

Dave Barrett
Operations Manager

James Gower
Project Superintendent

Appendix A ASBESTOS MATERIAL SAMPLE LOG

City of Whitewater

116 E Main Street
Whitewater, WI 53190

October 29, 2024

NORTHSTAR ENVIRONMENTAL TESTING, LLC
www.NorthStarTesting.com

ASBESTOS MATERIAL SAMPLE LOG

Client:	City of Whitewater	**NorthStar No.**	240-1327
Location:	116 E Main Street Whitewater, WI 53190	**Date Collected:**	October 29, 2024
Work Area:	Pre-Demolition	**Technician:**	James Gower
Laboratory:	Eurofins CEI, Inc.	**Date Analyzed:**	November 4, 2024

Sample ID	Bldg. Level	Material Location	Material Sample	Description	Asbestos Content
1327-1	1	Restroom - Wall	Drywall	White	None Detected
1327-2	1	Restroom - Wall	Joint Compound	White	None Detected
1327-3	1	Restroom - Wall	Composite (Ony if Positive)	---	*Not Analyzed*
1327-4	1	Restroom - Ceiling	Drywall	White	None Detected
1327-5	1	Restroom - Ceiling	Joint Compound	White	None Detected
1327-6	1	Restroom - Ceiling	Composite (Ony if Positive)	---	*Not Analyzed*
1327-7	1	Reception – Wall	Drywall	White	None Detected
1327-8	1	Reception – Wall	Joint Compound	White	None Detected
1327-9	1	Reception – Wall	Composite (Ony if Positive)	---	*Not Analyzed*
1327-10	1	Reception – Wall	Drywall	White	None Detected
1327-11	1	Reception – Wall	Joint Compound	White	None Detected
1327-12	1	Reception – Wall	Composite (Ony if Positive)	---	*Not Analyzed*
1327-13	1	Reception – Ceiling	Plaster Skim Coat	White	None Detected
1327-14	1	Reception – Ceiling	Plaster Base Coat	Grey	None Detected
1327-15	1	Reception	Caulking. On Metal Window	White	None Detected
1327-16	1	Work Room - Floor	Woodgrain Plank Flooring	Brown	None Detected
1327-17	1	Hallway - Wall	Drywall	White	None Detected
1327-18	1	Hallway - Wall	Joint Compound	White	None Detected
1327-19	1	Hallway - Wall	Composite (Ony if Positive)	---	*Not Analyzed*
1327-20	1	Hallway - Wall	Plaster Skim Coat	White	None Detected

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ASBESTOS MATERIAL SAMPLE LOG

Client:	City of Whitewater	**NorthStar No.**	240-1327
Location:	116 E Main Street Whitewater, WI 53190	**Date Collected:**	October 29, 2024
Work Area:	Pre-Demolition	**Technician:**	James Gower
Laboratory:	Eurofins CEI, Inc.	**Date Analyzed:**	November 4, 2024

Sample ID	Bldg. Level	Material Location	Material Sample	Description	Asbestos Content
1327-21	1	Hallway - Wall	Plaster Base Coat	Grey	None Detected
1327-22	1	Hallway – Ceiling	Spray-on Insulation, On Metal	Yellow	None Detected
1327-23	1	Storage Room - Floor	Mortar, On 1” Ceramic Tile	Grey	None Detected
1327-24	1	Storage Room - Floor	Adhesive, On 1” Ceramic Tile	Yellow	None Detected
1327-25	1	Storage Room - Wall	Plaster Skim Coat	White	None Detected
1327-26	1	Storage Room - Wall	Plaster Base Coat	Grey	None Detected
1327-27	1	Storage Room - Wall	Mortar, On Concrete Block	Grey	None Detected
1327-28	1	Storage Room	Caulking, On Metal Ductwork	Grey	None Detected
1327-29	Ext	Exterior: North	Mortar, On Concrete Block	Grey	None Detected
1327-30	Ext	Exterior: South	Stucco	Grey	None Detected
1327-31	Ext	Exterior: East	Stucco	Grey	None Detected
1327-32	Ext	Exterior: South	Caulking, On Metal Window	Grey	None Detected
1327-33	Ext	Exterior: South	Caulking, On Metal Door	Grey	None Detected

Appendix B LEAD PAINT XRF TESTING DATA

City of Whitewater

116 E Main Street
Whitewater, WI 53190

October 29, 2024

NORTHSTAR ENVIRONMENTAL TESTING, LLC
www.NorthStarTesting.com

LEAD PAINT XRF TESTING DATA

Client:	City of Whitewater	**NorthStar No.**	240-1327
Location:	116 E Main Street Whitewater, WI 53190	**Site Date:**	October 29, 2024
Work Area:	Pre-Demolition	**Inspector:**	James Gower

Reading No.	Wall	Structure	Location	Member	Paint Condition	Substrate	Color	Lead (mg/cm²)
Pre – Calibration								
1								**1.1**
2								**1**
3								**1**
4								0.2
Exterior 001 – Building								
5	A	Siding	U Ctr		Poor	Stucco	Grey	0
6	C	Siding	U Ctr		Poor	Concrete	Brown	0.1
7	D	Siding	U Ctr		Poor	Stucco	Grey	0.2
Interior Room 001 – Storage								
8	A	Wall	U Ctr		Poor	Concrete	White	0.2
9	B	Wall	U Ctr		Poor	Concrete	White	0.1
10	C	Wall	U Ctr		Poor	Concrete	White	0.1
11	D	Wall	U Ctr		Poor	Concrete	White	0.1
12	B	Floor			Poor	Concrete	Grey	0.3
Post – Calibration								
13								**1**
14								**1**
15								**1**
16								0.1

Abbreviations:	**U = Upper**	**L = Lower**	**Rgt = Right**	**Lft = Left**	**Ctr = Center**	**Bsmt = Basement**

Note:

- Wall A (South) is the road/street side (E Main St) of the building. Walls B/C/D are determined clockwise from wall A.
- The State of Wisconsin defines lead-based paint as that which is equal to or greater than 1.0 mg/cm^2 by XRF. Paint chip analysis would be recommended for determination of lead in paint below this level or to rule out lead in any quantifiable amount (for OSHA related information).
- Readings with a negative value (i.e. -0.1) are equivalent to 0.0.
- The calibration of the XRF analyzer was verified before and after testing by taking three readings from a source known to contain 1.02 mg/cm^2 lead (NIST Standard Reference Material). The three positive calibration readings were followed by a sample on bare wood containing no lead-based paint.

NORTHSTAR ENVIRONMENTAL TESTING LLC
1006 WESTERN AVE, MOSINEE, WI 54455-1530 | (715) 693-6112

is a

Certified Asbestos Company
DHS ID 925800

under Wisconsin Admin. Code ch. DHS 159.

Issued Date: May 30, 2023
Expiration Date: August 1, 2025

COPY

Miriam Hasan
Supervisor, Lead & Asbestos Certification Unit

Wisconsin Department of Health Services
1 W Wilson Street
Madison, WI 53701
608-261-6876 | dhsasbestoslead@dhs.wisconsin.gov

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WISCONSIN DEPT. OF NATURAL RESOURCES

WA-651 (Revised 2013)

PLANNING YOUR DEMOLITION OR RENOVATION PROJECT:

A Guide to Hazard Evaluation, Recycling and Waste Disposal

(Formerly called Pre-Demolition Environmental Checklist)

INFORMATION ON IDENTIFYING, HANDLING AND PROPERLY DISPOSING OF HAZARDOUS MATERIALS

PLANNING YOUR PROJECT

1. ☑ Conduct a walk-through of the project building(s) and grounds to **identify items that contain harmful materials** and other site-related concerns.
2. ☑ **Identify and quantify harmful materials at your job site** with specialized inspectors or contractors, if necessary
3. ☑ **Notify the DNR of** demolition or renovation activities prior to starting any demolition or renovation work.
4. ☑ **Hire specialized consultants, contractors or transporters** to remove and properly manage harmful materials prior to starting your project.
5. ☑ **Request and file all receipts** for the disposal of harmful and non-harmful materials related to the project to avoid potential enforcement action.

Before beginning any demolition or renovation project, it is important to know about harmful materials that may be present on your project site.

This guide walks contractors and building owners through the steps to identify harmful materials commonly found at project sites and to handle and dispose of them safely. It also offers proper ways to manage recyclable and reusable materials and other wastes that are common in demolition and renovation projects.

The Resources section on the last page has links to websites with more information.

Note: This document is not intended as a substitute for reading the rules, regulations, and statues related to handling demolition and renovation debris. It is simply a guide to assist you in determining how they apply to your demolition or renovation project.

COMMON HARMFUL MATERIALS

Buildings can contain a number of harmful materials that may expose workers and the public to serious health risks and pollute the air, land and water if handled or disposed of in an unsafe way. Five of these harmful materials are common on project sites and need special care in identification and handling:

- **Asbestos**
- **CFCs (chlorofluorocarbons) and halons**
- **Lead**
- **Mercury**
- **PCBs (polychlorinated biphenyls)**

FIVE STEPS TO A SUCCESSFUL DEMOLITION OR RENOVATION PROJECT

STEP 1. Conduct a walk-through of the project building(s) and grounds to identify items that contain harmful materials and other site-related concerns.

Identifying hazardous materials before starting work on a project site protects worker health and safety, building occupants, and the financial viability of the project. Doing this up front can help you choose the appropriate inspectors, consultants and contractors and avoid costly change orders or project delays.

Before you begin any demolition or renovation project, thoroughly inspect and inventory the project site for the following items:

- **Appliances:** Appliances may contain CFCs, mercury or PCBs. Appliances that contain CFCs or PCBs must be processed by an appliance de-manufacturer registered with the DNR.
- **Building materials and fixtures that may contain asbestos:** All layers of materials, behind walls, ceiling spaces, etc., should be inspected and sampled unless they are assumed to contain asbestos. The following building components may contain asbestos, but this list is by no means all-inclusive:
  - **Caulking:** Used around windows, doors, corrugated roofing and other places where two materials are joined. PCBs have also been found in caulking materials. Schools and industrial buildings constructed or renovated between 1950 and 1979 are suspected to contain PCB-containing caulk.
  - **Ceilings:** Including acoustical tiles and adhesives, and the materials listed under "Interior and exterior walls" below. All ceiling layers and any spaces above the ceiling where drop ceilings are present should be checked. Insulation debris may also be lying on top of ceiling tiles.
  - **Electrical systems:** Insulators; spark arrestors and transite panels in electrical boxes; wiring insulation; ducts/conduits (transite pipe); and light fixtures.
  - **Flooring:** All sizes of vinyl floor tile, sheet flooring, and linoleum, and felt paper used under hardwood floors.
  - **HVAC systems:** Duct, pipe, and joint insulation because elbows/joints are often coated with asbestos; fiberglass insulation on the straight runs; forced air dampers; wall, floor and chimney penetrations; lining and mortar; fire brick; fire-proofing materials such as transite sheets or heavy paper; boiler insulation; flexible fabric connectors; packing/gaskets and adhesives; paper backing; mastic/adhesives (floor tile, carpet, etc.); and grout and felt paper under hardwood floors.
  - **Insulation in ceilings and walls:** Blown-in, spray-applied, and block.
  - **Interior and exterior walls:** Wall plaster; joint compound; patches; transite wallboard and siding; fire doors; window putty/glazing/caulking; mortar; asphalt shingles/siding; felt under siding, stucco, textured paint, and other spray-applied materials. Paint containing asbestos is rare except in commercial applications, where it was usually applied as a very thick, often silver-colored coating or added to textured paints.
  - **Miscellaneous:** Appliances with a heating element, especially older models; fire curtains and blankets; laboratory tabletops; fume hood linings; blackboards; and fire-resistant clothing like gloves, hoods, aprons, etc.
  - **Plumbing:** Pipe wrap, pipe joints, transite counter tops in bathrooms, faucets, packing gaskets, and adhesives.
  - **Roofing:** Asphalt shingles; tar-type coatings which are often around vents, chimneys, etc.; transite shingles; roofing felts that are often under a layer of other material; flashings; and mag-block type material found under other material. Check all roof areas and roofing layers.
- **Lighting fixtures/ballasts and bulbs/lamps:** Switches for lighting may use mercury relays. Look for any control associated with exterior or automated lighting systems, such as "silent" wall switches. Several types of light bulbs or lamps contain mercury and must be properly legitimately recycled or disposed of as hazardous waste. These include:
  - **Fluorescent lights:** Even the newer lamps with green-colored ends contain mercury.
  - **High intensity discharge:** metal halide, high pressure sodium, mercury vapor.
  - **Neon**
- **Meters and switches:** Mercury may be found in thermometers, barometers, thermostats, blood-pressure devices, and fluorescent and other types of light bulbs. Any equipment used for measurement of vacuum, pressure, fluid level, temperature, or flow rate could contain mercury. These devices are

most commonly associated with commercial and industrial equipment systems, including tanks, boilers, furnaces, heaters, electrical systems, water cleaning systems, and systems for the movement or pumping of gas (air) or liquids (water). In addition, mercury containing devices are also common in certain agricultural operations such as dairy, and may be present in older model consumer appliances and residential properties, especially larger multi-unit properties.

- **Oil:** Used oil in containers or tanks, hydraulic oils in machinery, electrical transformers and capacitors, and elevator shafts. These oils may contain PCBs and may need to be tested to determine if the oil can be recycled or must be properly disposed of.
- **Paint:** Residential and industrial paints may contain lead, solvents or asbestos. Some industrial paints may contain PCBs.

In addition to the items listed above, be aware of these other site-related concerns:

- **Abandoned wells:** Unused and improperly abandoned wells are a significant threat to groundwater quality. If not properly filled, abandoned wells can directly channel contaminated surface water into the groundwater. State law requires that all wells and drill holes be properly filled prior to any demolition or construction work on the property.
- **Batteries (non-lead-containing):** Batteries may be found in smoke detectors, emergency lighting systems, elevator control panels, exit signs, security systems and alarms. Batteries should be separated from other wastes and taken to a recycling facility or a business that accepts batteries for recycling.
- **Computers and other electronics:** Most electronics are banned from Wisconsin landfills and must be recycled. These can contain hazardous materials such as lead, cadmium, chromium, and mercury and, if not recycled, may be regulated as hazardous waste.
- **Exit signs:** Many self-luminous exit signs contain tritium, a radioactive material. All self-luminous exit signs must have a permanent label that identifies it as containing radioactive material. The label will also include the name of the manufacturer, the product model number, the serial number, and the quantity of tritium contained. It is illegal to abandon or dispose of these signs except by sending them to the manufacturer or to others licensed by the U.S. Nuclear Regulatory Commission.

▶ HAZARDOUS AND UNIVERSAL WASTES

Some wastes, such as used or unused solvents, sanitizers, paint wastes, chemical wastes, pharmaceuticals, gas cylinders, aerosol cans and pesticides, may be hazardous waste and regulated by the EPA and DNR. Hazardous wastes must be removed from a project site prior to demolition or renovation and be disposed of according to specific rules. Read the DNR publication "Is Your Waste Hazardous?" (WA-1152) at http://dnr.wi.gov/files/pdf/pubs/wa/wa1152.pdf to determine if a waste is hazardous. *See Handling and Disposal Choices on page 7 for information on how to dispose of hazardous wastes on a project site.*

Universal wastes are hazardous wastes that can be collected and transported with fewer regulations. Universal wastes include hazardous waste batteries, certain pesticides, mercury thermostats and other mercury-containing equipment and some lamps (light bulbs). In Wisconsin, antifreeze can also be managed as a universal waste if it is recycled. See chapter NR 673 of Wisconsin Administrative Code for more details on recycling and reusing universal waste.

- **Painted concrete:** Walls and foundations often contain painted concrete. With prior DNR approval, contractors can grind the concrete and use it on-site or nearby under a new building or road.
- **Smoke detectors:** The smoke detectors that contain a small amount of radioactive material will be labeled and should be returned to the manufacturer for disposal. Otherwise, smoke detectors may go in the trash.
- **Soil contamination:** A qualified environmental consultant can conduct environmental property assessments including identification of contaminated soil.
- **Spills:** In Wisconsin, all spills of hazardous substances that negatively affect or threaten to negatively affect public health, welfare or the

▶ REUSE AND RECYCLING OF MATERIALS

Many materials, fixtures and components can be donated or sold for reuse or recycled prior to demolition. As you inventory the project site for harmful materials, take note of materials that can be reused or recycled and remove them from the project site before demolition work begins.

- The Wisconsin Business Materials Exchange is a web service that facilitates the reuse of surplus or unwanted items or materials among businesses, institutions, and organizations. You can use this tool to post items that are available and request an item you may need.
- Consider holding an auction as a way to reuse building materials, fixtures and components once all the harmful materials have been removed.
- Clean brick, building stone, concrete and asphalt can be stockpiled for crushing and reusing in future building projects.
- Clean, untreated wood can be recycled or chipped for mulch or ground cover.
- Many items such as appliances, electronics, paper and cardboard, glass containers and vehicle items are banned from Wisconsin landfills and must be recycled. For a complete list of these items, go to dnr.wi.gov and search "what to recycle."
- The online Wisconsin Recycling Markets Directory contains a list of self-identifying businesses accepting recyclable materials. Make sure your chosen recycler meets local, state and federal regulatory requirements.
- Demolition debris may be taken to a construction and demolition recycling facility if all harmful materials, including all types of asbestos, are removed prior to demolition or renovation.

▶ OPEN BURNING

It is illegal to burn painted, treated or unclean wood, asphalt, plastics of any kind, oily substances, tires and other rubber products, garbage, recyclables, wet rubbish, and other materials. Demolition materials that cannot be burned include: roofing materials, all kinds of flooring materials, insulation, plywood and other composition board, electrical wiring, cabinetry and countertops, and plastic plumbing.

Burning of clean, unpainted and untreated wood is allowed with a DNR burning permit using DNR-approved methods. When burning this type of wood from demolition waste, you must separate out all of the illegal materials, including painted or treated wood, before any burning occurs. The DNR encourages chipping clean, untreated wood for mulch or ground cover.

If you do decide to burn clean, unpainted and untreated wood, it is your responsibility to know what restrictions apply in the area where you are burning. Remember, you must also follow local burning ordinances that may be more restrictive than state law. Contact your local fire department, town chairperson, or local municipal official for more information on local burning rules.

It is illegal to burn unwanted buildings in Wisconsin. The only exception is for a fire department training exercise. For more information on how to prepare a building for a fire department training exercise, contact the DNR asbestos program coordinator at (608) 266-3658.

environment *must* be immediately reported to the DNR via the Spills Hotline, 800-934-0003.

- **Tanks:** Chemical tanks (underground and aboveground) and septic tanks should be assessed, emptied and decommissioned.
- **Tires:** Tires should be reused or recycled. Your local landfill may collect them for recycling or you can check WisconsinRecyclingDirectory.com and search for "motor vehicle items" and then "tires."

2 STEP 2. Identify and quantify harmful materials at your job site with specialized inspectors or contractors, if necessary

Asbestos and lead have specific requirements from the Department of Natural Resources and the Department of Health Services for their identification and testing on a project site. See the sections on asbestos and lead in this step for those requirements.

You can identify other harmful materials on a project site, such as CFCs and halons, mercury, and PCBs, by doing an inventory of the building systems and fixtures for the items listed here and in Step 1. You may need some testing to confirm the presence of these materials. The DNR recommends hiring an inspector or consultant who has sufficient experience identifying these materials and can collect samples, if necessary, that will help in identification.

If you have a large or complex project, it may make sense to hire a consultant to oversee the coordination of all waste identification and disposal activities.

▶ Asbestos

Health risks: Asbestos is a known human carcinogen that can cause serious health problems when disturbed and inhaled. Historically, asbestos was commonly used in industrial, commercial, and residential structures. Asbestos is still used today but to a lesser extent.

Location and/or materials: Asbestos is used in more than 3,000 building materials. Asbestos is commonly found in HVAC systems, electrical systems, interior and exterior walls, roofing materials, ceilings, plumbing, and flooring insulation. It is also found in appliances with a heating element, fire curtains and blankets, laboratory tabletops, fume hood lining, blackboards and fire resistant clothing. Refer to Step 1 for a detailed list of building materials and locations that may contain asbestos.

Identification and testing: The Department of Health Services requires licensed inspectors to identify asbestos. Inspectors can assume asbestos to be present, or they can identify it through testing. The DNR requires an asbestos inspection for certain projects and recommends it for others.

Required projects:

- Two or more contiguous single family homes
- Homes that are part of a larger demolition project
- Multi-family housing with five or more units
- Industrial, manufacturing or commercial buildings including bridges, farm buildings, and churches
- Any structure being prepped for a fire training exercise

Recommended projects:

- Single family homes
- Multi-family housing with 2–4 units

Inspection must be completed and asbestos materials must be removed before beginning any demolition or renovation activities.

▶ CFCs (chlorofluorocarbons) and halons

Health risks: CFCs and halons damage the earth's protective ozone layer high in the atmosphere, allowing greater exposure to the sun's dangerous ultraviolet rays. Some of the harmful effects of increased UV exposure include increased risk of skin cancer, eye cataracts, immune system deficiencies, and crop damage.

Location and/or materials: CFCs can be found in refrigerants in rooftop, room and central air conditioners, refrigerators, freezers, and chillers, dehumidifiers, heat pumps, water fountains and drinking coolers, walk-in coolers (refrigeration or cold storage areas), vending machines and food display cases. Halons are found in fire extinguishers and other fire control equipment.

▶ Lead

Health risks: Inhaling or swallowing lead dust can cause serious health effects, including kidney disease, neuropathy, infertility, heart and cardiovascular disease, stroke, memory problems, and Alzheimer's disease.

Location and/or materials: Lead plumbing and lead-based paint are commonly found in many older buildings. Lead may be found in paint on woodwork and metal equipment, leaded glass, lead window-sash weights, lead flashing molds, roof vents, lead pipes and solder. Lead is found in both indoor and outdoor applications. Lead is also found in lead-acid batteries associated with older lighting, exit signs, and security systems.

Identification and testing: The Department of Health Services requires licensed inspectors and risk assessors to identify lead paint. When building surfaces or components are being renovated in any residential and child-occupied buildings built before 1978 (such as private homes, rental units, day care centers, and schools), lead paint must be assumed to be present or identified through testing.

Lead paint sampling is recommended on commercial and industrial projects. The US discontinued manufacturing lead paint for residential use by 1978, but lead is still used in specialty paints in commercial and industrial applications. Most buildings have multiple layers of paint, and all layers should be considered.

▶ Mercury

Health risks: Liquid mercury evaporates slowly at room temperature and gives off harmful vapors that are invisible and odorless. Breathing these vapors causes the most harm to people, but mercury can also be harmful when it comes in contact with broken skin or when it is swallowed. Women and children are most at risk from mercury poisoning, which can cause brain and nerve damage, resulting in impaired coordination, blurred vision, tremors, irritability and memory loss. Mercury poisoning also causes birth defects.

Location and/or materials: Mercury may be found in thermometers, barometers, thermostats, dental offices, blood-pressure devices, and fluorescent and other types of light bulbs. Any equipment used for measurement of pressure, fluid level, temperature, or flow rate could contain mercury. These devices are most commonly associated with commercial and industrial equipment systems, including tanks, boilers, furnaces, heaters, electrical systems, water cleaning systems, and systems for the movement or pumping of gas (air) or liquid (water). In addition, mercury containing devices are common in certain agricultural operations such as dairy, and may be present in older model consumer appliances, vehicle light switches and residential properties, especially larger multi-unit properties. Dental offices use mercury-containing amalgam that may be found in sink drain traps. Mercury can also be found as part of older wastewater treatment plant trickling filters.

▶ PCBs (polychlorinated biphenyls)

Health risks: PCBs may cause cancer in humans and can disrupt hormone and nervous system function. PCBs are persistent in the environment and stay in animals' and humans' systems. PCBs are a source of contamination in fish and have caused fish consumption advisories for humans.

Location and/or materials: PCBs can be found in electrical oils (e.g. transformers and capacitors in appliances) electronic equipment, heat transfer equipment, hydraulic fluids, light ballasts, industrial paints, specialty paints (e.g. swimming pools) and caulking materials. Sumps, oil traps and concrete flooring in facilities that used or manufactured PCBs may be contaminated with PCBs as well. Electrical devices manufactured prior to 1978 should be assumed to contain PCBs.

Identification and testing: You may be able to determine PCB concentrations in electrical equipment oil using identification labels, documents from the manufacturer indicating the PCB concentration at the time of manufacture, or service records showing the PCB concentration measured when the equipment was serviced. If a manufactured date and PCB content label are not found on a transformer or capacitor, the oil should be tested to determine the PCB content prior to dismantling and disposal. Oil-filled electrical equipment labeled "No PCBs" may still contain PCBs, but at a concentration lower than what the EPA regulates. The oils in this equipment should still be tested to see if they contain PCBs and then handled appropriately.

Testing of specialty paint, epoxies and caulks in buildings built or renovated between 1950 and 1979 is recommended. High levels of PCBs are being found in these materials across the country. Once testing is complete, boldly label all surfaces and items that were found to contain PCBs so they are handled appropriately during renovation or demolition.

STEP 3. Notify the DNR of demolition or renovation activities prior to starting any demolition or renovation work.

Notification to the DNR is required for all demolition projects meeting any of these categories:.

- Two or more contiguous single-family homes
- Homes that are part of a larger demolition project
- Multi-family housing with five or more units
- Industrial, manufacturing or commercial buildings including bridges, farm buildings, and churches
- Any structure being prepped for a fire training exercise

DNR notification is also required for renovation projects meeting any of these criteria, if asbestos removal is involved.

For demolition projects
All demolition projects meeting the previously listed criteria require DNR notification 10 working days before the project work begins.

For renovation projects involving asbestos
All renovation projects meeting the previously listed criteria that involve asbestos require DNR notification 10 working days before the project begins.

Note: While plans to demolish or renovate a single-family home do NOT require DNR notification, it is recommended you take the precautionary steps outlined in this publication.

▶ HANDLING AND DISPOSAL CHOICES

You have a few options for handling and disposing of lead, mercury, PCBs and other wastes from your project site that qualify as hazardous waste. Identifying these options prior to beginning the project can help you schedule transportation and disposal and maintain the overall project schedule.

- **Hire a waste management contractor** to pick up and dispose of hazardous wastes. This takes the guess work out of handling these types of wastes. Contractors have properly trained personnel that will determine appropriate packaging, shipping and vehicle licensing and have established relationships with disposal facilities.

Other choices provide you with reduced regulation and may change depending on the amount of hazardous waste generated in a month. As a contractor, you may manage hazardous wastes you generate at temporary job sites only according to the following options. For more details on these options, see the DNR publication "Pilot Project for Management of Contractor Generated Hazardous Waste" (WA-654) at http://dnr.wi.gov/files/pdf/pubs/wa/wa654.pdf.

- **Hire a licensed hazardous waste transporter** to transport the hazardous waste to a licensed or permitted hazardous waste treatment, storage and disposal facility. In this case, you must follow the applicable generator requirements in chapters NR 660-679 of Wisconsin Administrative Code.
- **Leave containerized hazardous waste for the site owner to properly manage.** In this case, the site owner must follow the applicable generator requirements in chapters NR 660-679 of Wisconsin Administrative Code. If you choose this option, be sure to include this in your contract with the site owner.
- **Transport the containerized hazardous waste yourself** directly from the temporary job site to a Household and Very Small Quantity Generator (VSQG) Hazardous Waste Collection Facility. This includes county or municipal Clean Sweep locations. If the total quantity of hazardous waste generated by your company in one month is less than 220 lbs. (about half of a 55-gallon drum), you would be a VSQG and your hazardous waste may be taken to a Clean Sweep location for handling and disposal. Contact your local Clean Sweep coordinator for information on possible fees, accepted materials, and other details.
- **Transport the containerized hazardous waste yourself to your central business location.** This option is currently available under a pilot project. Waste handled in this manner is subject to the pilot project conditions. See the publication referenced above for more information.

STEP 4. Hire specialized consultants, contractors or transporters to remove and properly manage harmful materials prior to starting your project.

Hiring the right consultant, contractor or transporter is important to ensure safe handling practices and disposal options. This section will help you determine who to hire. Links to lists of licensed consultants, contractors and transporters are on the last page under Resources.

▶ Asbestos

Handling practices: Asbestos professionals trained and certified by DHS are required to perform asbestos removal in most multi-unit residential and all commercial, industrial, manufacturing and government buildings. Most types of asbestos-containing materials must be removed from the building prior to demolition or renovation.

Disposal: The asbestos removal contractor is responsible for disposing of the asbestos materials at a licensed landfill approved to accept asbestos waste. Not all landfills accept asbestos materials, so contractors should call the landfill to find out what materials are accepted and the hours of operation.

In some situations, non-friable asbestos materials (materials that are resistant to crushing), such as floor tile and roofing, may remain in place during the demolition activities. When this is done, the debris must be taken to a municipal or construction and demolition landfill. Debris containing non-friable asbestos materials may not be taken to a construction and demolition recycling facility.

▶ CFCs (chlorofluorocarbons) and halons

Handling practices: Keep units that contain refrigerants in place for a certified transporter to remove them. Moving them may cause an accidental release of refrigerants. Certified transporters include waste haulers, community recycling programs, and appliance salvage businesses. State law requires that anyone transporting salvaged refrigeration units must certify to the DNR that they will transport items in a way that prevents refrigerant releases. Technicians who remove refrigerants from units must be registered with the DNR and use approved equipment.

Check both portable and installed fire suppression systems for labels indicating halons. Trained technicians are also needed to remove halons. Contact local fire suppression equipment companies or the Halon Recovery Corporation for more information. Do not discharge halon fire extinguishers; intentionally releasing these substances is prohibited under federal regulations.

Disposal: Once the refrigerants are recovered, the unit may be taken to a metal scrap recycling facility. If you send halon-containing equipment offsite for disposal, it must be sent to a manufacturer, fire equipment dealer or recycler operating in accordance with National Fire Protection Association standards.

▶ Lead

Handling practices: DHS-certified lead-safe contractors are required for any renovations, repairs, painting or other paint-disturbing services on or in the regulated buildings that contain lead paint. These contractors must use lead-safe practices at these properties.

State law prohibits the sale or transfer of any fixture or other object that contains lead-bearing paint if children would have ready access to the fixture or object in its new location.

Disposal: Dispose of in a landfill any painted wood or building components that contain lead paint. Do not burn or chip wood that contains lead paint or use it for landscaping.

Lead paint waste, such as lead paint chips or lead paint removed from commercial or industrial buildings, must be tested to determine if it is a hazardous waste for disposal purposes.

See Handling and Disposal Choices on page 7 for handling and disposal options.

▶ Mercury

Handling practices: You may collect intact mercury-containing devices and bring them back to your primary business location or bring them directly to an off-site mercury recovery facility. Do not remove mercury ampoules or free liquids from the device. Store devices in a covered plastic container to prevent them from breaking. Label the container to assist proper handling and disposal.

If any mercury is spilled or released during handling, report the spill immediately by calling the DNR 24-hour Spills Hotline: (800) 934-0003. Mercury spreads quickly, and even a small spill can cause big cleanup costs in a short period of time.

Disposal: Trained professionals and specific equipment are needed for safe removal of mercury from ampoules and devices. Mercury must be transported by a licensed hazardous waste transporter to a mercury facility to be recycled or reclaimed.

See Handling and Disposal Choices on page 7 for handling and disposal options.

▶ PCBs (polychlorinated biphenyls)

Handling practices: The EPA recommends that caulk containing PCBs be removed during planned renovations and repairs (when replacing windows, doors, roofs, ventilation, etc.). It is important to ensure that PCBs are not released into the air during renovation or repair of affected buildings.

Oils with PCB content greater than 50 ppm are prohibited from being mixed with other materials to reduce the PCB content.

Disposal: PCBs must be transported either by your company, a licensed hazardous waste transporter or a full-service contractor. PCBs and PCB-containing wastes must be taken to a licensed disposal facility or directly to a licensed incineration facility. Arrangements for accepting PCBs must be made with these facilities ahead of time.

See Handling and Disposal Choices on page 7 for handling and disposal options.

STEP 5. Request and file all receipts for the disposal of harmful and non-harmful materials related to the project to avoid potential enforcement action.

As materials are removed from the project site, ask your contractors for disposal receipts to document the disposal or recycling of your wastes. This is an important step in protecting your company. If materials are illegally dumped, the DNR will investigate to determine where the materials came from. Part of the investigation process would be to identify projects in the area that may have been the source of the illegally dumped materials. Receipts show that your project wastes were disposed of appropriately and protect you from liability issues and fines and/or forfeitures.

▶ DEMOLITION AND RENOVATION WASTE

Disposal options for demolition and renovation wastes depend on the type of waste and, in some cases, the amount generated. Solid wastes such as trash, painted wood, and fiberglass insulation can be disposed of at solid waste transfer stations and landfills, including construction and demolition landfills.

If demolition wastes are going to a construction and demolition landfill, all non-building components, such as books, furniture and trash must be removed before you begin demolition (note that most of these non-building components can be reused or recycled). Non-building components may stay in the building if the demolition waste is going to a municipal solid waste landfill. Check with local landfills prior to demolition to determine how to manage your wastes.

Demolition debris may be taken to a construction and demolition recycling facility if all asbestos materials and other harmful materials have been removed prior to demolition or renovation.

To find a list of these facilities licensed in Wisconsin, go to dnr.wi.gov and search "licensed waste haulers and facilities."

Once the harmful materials have been removed from the project site and the notification to DNR is submitted with the appropriate dates of demolition, demolition may begin. This includes first removing materials for reuse or recycling. If all harmful materials, including all types of asbestos, have been removed from the building or structure before demolition, the resulting debris may be taken to a construction and demolition recycling facility.

RESOURCES

Asbestos

- DNR asbestos program requirements: dnr.wi.gov, search "asbestos"
- DHS Wisconsin Asbestos Program: www.dhs.wi.gov/asbestos/
- DHS-certified asbestos companies: at the link above, look for "certified company" in the left-hand margin

Brownfields

- DNR brownfields redevelopment: dnr.wi.gov, search "brownfield"

CFCs and halons

- DNR refrigerant recovery program: dnr.wi.gov, search "refrigerants"

Demolition debris, waste, transporters, landfills and other licensed facilities

- DNR demolition, construction & renovation information: dnr.wi.gov, search "demolition"
- DNR waste and materials management: dnr.wi.gov, search "waste"
- DNR list of licensed haulers and facilities: dnr.wi.gov, search "licensed waste haulers and facilities"
- Contact the DNR: 608-266-2111 or DNRWasteMaterials@wisconsin.gov

Hazardous and universal wastes

- DNR hazardous waste information: dnr.wi.gov, search "hazardous waste"
- "Is Your Waste Hazardous?" (DNR publication WA-1152): http://dnr.wi.gov/files/pdf/pubs/wa/wa1152.pdf
- Handling and disposal of hazardous wastes – "Pilot Project for Management of Contractor Generated Hazardous Waste" (DNR publication WA-654): http://dnr.wi.gov/files/pdf/pubs/wa/wa654.pdf.
- Wisconsin Administrative Code chapter NR 673 – Universal Waste Management Standards: http://docs.legis.wisconsin.gov/code/admin_code/nr/600/673/

Lead

- DHS Lead-Safe Wisconsin: www.dhs.wi.gov/lead/
- DHS-certified lead companies: at the link above, look for "certified company" in the left-hand margin
- DNR Application for Low Hazard Waste Exemption for Reuse of Concrete Coated with Lead-Bearing Paint -- Form 4400-274 (R 2/12) http://dnr.wi.gov/files/pdf/forms/4400/4400-274.pdf

Mercury

- EPA information on mercury: www.epa.gov/hg/consumer.htm

PCBs

- EPA information on PCBs: www.epa.gov/wastes/hazard/tsd/pcbs/
- Wisconsin Administrative Code chapter NR 157 – Management of PCBs and Products containing PCBs: docs.legis.wisconsin.gov/code/admin_code/nr/100/157/

Reuse & recycling

- DNR recycling program: dnr.wi.gov, search "recycling"
- WasteCapDIRECT – a centralized, online directory of construction and demolition recycling processors, haulers and end markets: www.wastecap.org
- Wisconsin Recycling Markets Directory: www.wisconsinrecyclingdirectory.com

Storage tanks

- Department of Safety and Professional Services storage tank database: http://dsps.wi.gov/online-services/storage-tanks

Wisconsin Administrative Code

- Wisconsin Legislative Documents: http://docs.legis.wisconsin.gov

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