

Whole Building Demolition Compliance

Environmental Services Division | www.iowadnr.gov

Construction and demolition (C&D) debris is a varied solid waste stream from the construction, renovation and demolition of buildings. C&D waste is not federally regulated, except to the extent that solid waste landfills must follow a few basic standards outlined in the Federal Register (40 CFR part 257). States therefore, have the primary role in defining and regulating the management of C&D debris.

Building demolition waste can include the following discarded material: concrete, drywall, plaster, plywood, laminates, steel, aluminum, copper siding, doors, windows, plumbing fixtures, shingles and more. Many of those involved in generating C&D debris can save money and landfill space by reusing, recycling, donating or otherwise reducing the amount of C&D debris they throw away.

Prior to demolition, the building must be checked for materials other than lead based paint (LBP), which could contain hazardous materials (e.g., PCBs, mercury) and remove those from the building. Some examples include lighting ballasts, mercury lamps, thermostats, exit signs, used oil, lead pipes, etc.

The Iowa Waste Exchange is designed to keep waste out of landfills and in production. Contact your local representative to see if there is a reuse option for building materials.



www.iowadnr.gov/IWE

ASBESTOS

When demolishing or significantly renovating a building or structure, federal and state law requires a Certified Asbestos Inspection before work can begin. In compliance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations, any regulated asbestos noted in the inspection must be removed before it is disturbed by the planned renovation or demolition activities. Regulatory requirements also apply to the final disposal of demolition wastes. The general process to comply with these regulations are as follows (but is not an exhaustive list of all regulations and compliance requirements):

The demolition or significant renovation of any building or structure requires a Certified Asbestos Inspection prior to demolition or significant renovation. There are few exceptions to this rule, and they include the following:

1. Demolition of a residential structure directly by the residential owner or their contractor, when the owner plans to build a new residential structure in its place or plans to simply clear their own lot.
2. Demolition of a residential structure by a local government as part of a public safety or nuisance action, and only if no more than one residential structure is demolished within 1.5 blocks during such an action.

A certified asbestos inspection is also required on any structure where a training fire or controlled burn is to be conducted by local fire departments or a municipality. Additional air quality regulations and conditions also apply before a residential or commercial structure may be burned. www.iowadnr.gov/Environmental-Protection/Air-Quality/Asbestos-Training-Fires

Regulated Asbestos Containing Materials (RACMs) noted in a certified Asbestos Inspection must be removed by a licensed asbestos contractor prior to the planned renovation, demolition, or training fire.

The DNR Air Quality Bureau must be notified a minimum of 10 days prior to the planned RACM removal activity. The Certified Asbestos Contractor can assist property owners with properly notifying the DNR by submitting a form located on the blue box of this fact sheet.

The DNR Air Quality Bureau must be notified a minimum of 10 days prior to the planned demolition or training fire activity. The same DNR notification form for the RACM removal can be amended and filled out and submitted timely for notice of demolition. Demolition contractors can assist property owners with completing this notification. **All demolition waste must be reused, recycled or properly disposed at a permitted solid waste facility.** Demolition waste may not be dumped, burned or buried at a non-permitted facility. The only exceptions to this law are the

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following: inert brick, mortar, stone and similar rubble may be used for general fill so long as no solid or hazardous waste is intermixed, (no reinforcement bar protrudes from the material), and no asphalt rubble may be used where it will be in contact with water in a floodplain.

LICENSED ASBESTOS INSPECTORS AND PERMITTED ASBESTOS REMOVAL FIRMS

Division of Labor Services
Iowa Workforce Development
1000 E. Grand Ave.
Des Moines, IA 50319-0209
515-281-6175

www.iowaworkforce.org/labor/asbestos.htm

10-DAY NOTICE OF INTENT & NESHAP QUESTIONS

Tom Wuehr
Iowa DNR Air Quality Bureau
7900 Hickman Rd., Suite 1
Windsor Heights, IA 50324
515-725-9576 | Tom.Wuehr@dnr.iowa.gov
www.iowadnr.gov/InsideDNR/RegulatoryAir/Asbestos.aspx

SOLID WASTE AND RECYCLING

Chad Stobbe
Iowa DNR Solid Waste Section
502 E. ninth St.
Des Moines, IA 50319
515-725-8351 | Chad.Stobbe@dnr.iowa.gov

DNR Air Quality online 10 day notification:

For all abatement, demolition, and renovation work

- At your fingertips 24/7
- Immediate confirmation after notification received
- Simple revisions and cancellations
- Tailored to your needs – addresses each type of notification
- Online video training available
- Built-in help
- At your pace, pause as needed

<https://programs.iowadnr.gov/asbestos>

DEMOLITIONS CONTAINING LEAD BASED PAINT

The U.S. Environmental Protection Agency (EPA) has stated that solid architectural components coated with LBP are less likely to be hazardous because of the small ratio of lead paint to total waste mass. The U.S. Army conducted a study which concluded that whole-building demolition debris is not likely to exceed the toxicity characteristic standard for lead if it is handled as a single, whole waste stream and disposed all together (lead-based paint contaminated debris waste characterization study No. 27-26-JK44-92. May 1993).

Whole-building demolition debris is therefore considered a non-hazardous waste with regard to lead. No sampling or analysis of painted components for lead is required for disposal as non-hazardous waste.

DEMOLITIONS CONTAINING POLYCHLORINATED BIPHENYLS (PCBS)

PCBs can also be found in non-electrical manufactured items such as older paints, caulks, sealants, adhesives etc. In an Oct. 24, 2012 memorandum, EPA finalized a reinterpretation of its position regarding PCB contaminated building materials. The reinterpretation specifically addressed the definitions of bulk product waste (e.g., PCB-contaminated caulk or paint) and remediation waste (e.g., PCB contaminated masonry or concrete). This distinction is important as it determines the appropriate cleanup requirements and disposal options. The reinterpretation allows building material (i.e., substrate) “coated or serviced” with PCB bulk product waste (e.g., caulk, paint, mastics, sealants) at the time of disposal to be managed as a PCB bulk product waste, even if the PCBs have migrated from the overlying bulk product waste into the substrate.

EPA has determined PCB bulk product waste can be safely disposed of in certain non-Toxic Substances Control Act (TSCA) approved landfills (those that have been permitted, licensed, or registered by a state as a municipal or non-municipal non-hazardous waste landfill).

Note: Federal and state laws do not require the testing of PCBs for bulk product waste, although total PCBs must be below 50 ppm to be disposed of in an Iowa landfill. A variance may be granted in certain circumstances.



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Prior to whole building demolition or disposal, the building must be checked for materials that could contain hazardous materials, which must be removed prior to demolition.

Hazardous building materials	Not present	Not impacted	Will be removed	Common sources
1. ASBESTOS - Asbestos abatement must be performed by an Iowa licensed asbestos abatement contractor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> • Pipe, boiler or tank insulation materials • Suspended ceiling panels • Caulking, glazing materials • Roofing and siding materials
2. ABANDONED CHEMICALS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> • Gasoline and Oils • Paints and Thinners • Pesticides and herbicides • Cleaning products
3. COOLANT GASES (ex. Freon)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Air conditioning & refrigeration systems
4. BATTERIES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Emergency lighting and large equipment
5. FUEL/STORAGE TANKS (Above and below ground).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ancillary to emergency generators, heating/ furnace systems, chemical/product storage
6. HYDRAULIC FLUIDS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> • Door closers • Hydraulic elevator reservoir tanks and associated piping
7. DIELECTRIC FLUIDS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> • Electrical transformers • Lighting ballasts • Capacitors
8. LEAD PAINT AND LEAD ACID BATTERIES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> • Lead paint would need TCLP testing • Lead Acid Batteries can be brought to a recycler (Lead-acid batteries contain an average of 17.5 pounds of lead and 1.5 gallons of sulfuric acid)
9. PRODUCTS CONTAINING MERCURY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> • Fluorescent lamps (including green tipped tubes) thermostats, switches, silent light switches, manometers, and natural gas meters.
10. BUILDING COMPONENTS CONTAMINATED BY FORMER SITE OPERATIONS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> • Look for any RCRA listed Wastes (F,K,P, and U) • PCB (Bulk Product vs Remediation waste)
11. RADIOACTIVE MATERIALS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> • Self-illuminative exit signs and emergency lighting • Smoke detectors (certain models)
12. APPLIANCES AND ELECTRONIC MATERIALS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> • Appliances may contain Freon, PCBs, oil and mercury • Electronic waste (including CRTs) may contain lead and other heavy metals
13. WASTE OIL AND OIL FILTERS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> • Recycle waste oil and filters, both are banned from landfilling