Grittner, Paul V - DNR

From: Demers, Gerald L - DNR
Sent: Wednesday, April 06, 2016 12:02 PM
To: Grittner, Paul V - DNR
Subject: RE: Question regarding concrete foundations and reuse.
Attachments: wa605.pdf

Paul-
Here is a guidance on it. You are right; concrete is exempt unless it is painted with leaded paint, and then a Low Hazard Exemption is required. Bricks would also be exempt, unless painted with leaded paint..

If they demolished buildings in place, there could be other wastes, and the biggest concern would be asbestos. But if it is just foundations, probably not.

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From: Grittner, Paul V - DNR
Sent: Wednesday, April 06, 2016 10:56 AM
To: Demers, Gerald L - DNR
Subject: Question regarding concrete foundations and reuse.

Jerry,

I have a site that is currently being developed. Part of the development is the removal of old building foundations, crushing the debris, and reusing the material on site. I am assuming this is concrete and would be an exempt waste that would not be regulate by NR 500 (and would therefore not need an NR 718 exemption). If the foundations have lead based paint or some other material mixed in with the concrete – would a low-haz exemption than be needed to reuse the material? Are there other materials that are commonly found with 'foundations' that could pose a problem?

Thanks for the input.

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Concrete Recycling and Disposal Fact Sheet

Publication WA 605

Rev. 2004

WISCONSIN
DEPT. OF NATURAL RESOURCES

P.O. Box 7921
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What is the purpose of this fact sheet?

This fact sheet is intended to help property owners, renovation and demolition contractors and used concrete handlers determine what painted concrete can be recycled or how it must be disposed. “Clean” concrete is exempt by rule from most regulations. With certain location limitations, clean concrete may be crushed and used as fill, aggregate in road beds or concrete to concrete recycling. Most painted concrete can be used for these purposes in accordance with rule exemptions. This fact sheet explains when painted concrete is considered clean and is exempt for use vs. when painted concrete is not considered clean and where a specific approval is required by the Department of Natural Resources.

On what basis is painted concrete considered clean vs. not clean?

Painted concrete is considered to be clean if the concrete has not been coated with lead-bearing paint. “Lead-bearing paint” is defined by s. 254.11(8), Wis. Stats., and s. HFS 163.03(61), Wis. Adm. Code, to mean:

> Paint that contains more than 0.06% by weight (for laboratory testing), or 0.7 mg/cm^2 of paint surface (as measured by an XRF instrument).

Note: Latex-based paint does not contain lead and, therefore, concrete coated only with latex-based paint is considered clean.

Who is responsible to determine what type of paint is on the concrete and whether it is lead-bearing?

The generator or owner of the painted concrete has the responsibility to determine if the paint on the concrete is latex or oil-based and if it has been coated with lead-bearing paint. The responsible individuals include:

- The property owner
- Individuals carrying out a renovation or demolition project
- Individuals that later take ownership or control of painted concrete materials for recycling or disposal

So, tell me again, exactly what painted concrete should have the paint tested for lead?

Paint on concrete should be tested for lead if the paint is not latex-based and all of the following are true:

1. The painted concrete will be processed and/or used under a rule exemption for fill, aggregate or concrete to concrete recycling, and
2. The structure was built before 1978.

These criteria apply to painted concrete from all structures, whether used for residential, farm, commercial, industrial or other purposes. Information below explains how to sample and test paint for lead to determine if the painted concrete is clean for exempt use.

Paint other than latex-based paint manufactured before 1978 may contain lead at concentrations that

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define lead-bearing paint and the paint must be tested for lead to determine if the painted concrete is clean for exempt use. Because an owner of a structure older than 25 years won't usually know if only latex paint was used over the entire life of the building, lead testing is normally needed for all pre-1978 structures.

Note: If the painted concrete is disposed in a landfill approved by DNR, the paint doesn't have to be tested.

What management options are available for concrete coated with paint that isn't lead-bearing?

Concrete coated with paint that is not lead-bearing paint may be used as fill, aggregate or concrete to concrete recycling in accordance with the following rule exemptions:

- 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), Wis. Adm. Code) before placing used concrete on the land. For more information about this disposal exemption, refer to a separate Frequently Asked Question (FAQ)*, What is defined as "clean fill" that does not have to be taken to a landfill?*, on the DNR Waste Program website at

  http://dnr.wi.gov/topic/Waste/SolidFAQ.html#03.

Concrete coated with paint that is not lead-bearing may also be disposed in a landfill.

What management options are available for concrete coated with lead-based paint?

Landfill disposal is an available management option for concrete coated with lead-based paint. The landfill must be either a construction and demolition landfill approved under ch. NR 503, Wis. Adm. Code, or a municipal solid waste landfill approved under ch. NR 504, Wis. Adm. Code.

Concrete that is coated with lead–bearing that is used as a fill, etc. will require a written exemption or approval from DNR. A written exemption or approval may be issued under any of the following rules:

- s. NR 500.08(5)(a), Wis. Adm. Code, Beneficial Reuse under the Low Hazard Waste Exemption
- s. NR 500.08(4), Wis. Adm. Code, Exemption from Solid Waste Rules
- s. NR 500.08, Wis. Adm. Code, Solid Waste Processing Facilities

Please contact your local Department of Natural Resource office for further information at the locations specified in this fact sheet.

Who should I contact if I have questions about painted concrete recycling and disposal?

Questions about disposal of painted concrete should be directed to the DNR Waste Management Program. Contact your local DNR office, listed in the telephone directory, or find the DNR Waste Management Program individual by county from the DNR website at http://dnr.wi.gov/org/aw/wm/contacts/.

Is the paint sampling recommended by DNR the same as what's required by Department of Health and Family Services (DHFS)?

No. The lead sampling and testing for paint on concrete for recycling and disposal purposes isn't subject to the same (more rigorous) DHFS requirements that may apply to occupied structures, especially schools and residences.

If a structure will be used for residential purposes after the project is complete, DHFS rules require sampling by a certified individual. Also, according to federal law, a seller (or landlord) of a home built before 1978 is required to provide information to a buyer (or renter) about whether the home contains lead-bearing paint or any lead poisoning hazards. For more information about this, see http://dhfs.wisconsin.gov/lead/Purchase.htm.

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Who can sample and test paint samples from concrete for recycling and disposal purposes?

There is no specific requirement or certification required for an individual sampling paint from concrete for recycling and disposal purposes to determine if the painted concrete is clean for exempt use. An individual may take their own samples or a DHFS certified individual may be hired to do the sampling. However, unless an XRF instrument is used by a qualified individual to determine lead concentrations on site, the paint samples must be sent to a certified laboratory for analysis.

Lists of certified lead-bearing paint inspectors, risk assessors and laboratories are available from DHFS at http://www.dhs.wisconsin.gov/lead/Cert/index.htm. If you contact a DHFS certified individual but you only need to determine lead levels in paint on concrete to comply with recycling and disposal requirements, be sure to say this. The following summarizes sampling and testing options for lead-bearing paint for recycling and disposal purposes:

- Hire a Lead Inspector: A lead inspector may test paint using XRF (x-ray) instruments that "peer" through layers of paint to determine lead content immediately. A lead inspector can also collect samples for laboratory analysis. If immediate results are desired, be sure to inquire about on site testing with a x-ray instrument.
- Hire a Risk Assessor: A risk assessor will collect paint samples and send them to a laboratory for lead testing. Normally, a week or more may be needed for a laboratory to complete testing and additional time for a risk assessor to review results and get back to you. For time sensitive projects, it may be possible to obtain an "expedited" laboratory analysis and results interpretation, which may cost more, and may still require several days.
- Self-Sampling: For recycling and disposal purposes only, a DHFS certified individual isn't required to do the sampling. Instead, an individual may take their own samples and send the samples to a certified laboratory for testing. One or two samples are unlikely to be enough since multiple layers of paint types may be present in different areas. Sampling recommendations for recycling and disposal purposes are listed below.

The US Environmental Protection Agency hasn't approved and doesn't recommend do-it-yourself lead test kits that do not include laboratory analysis because they may not be sufficiently accurate to identify lead-bearing paint. For example, one lead test kit manufacturer claims their product can reliably detect lead levels down to only 0.5% lead, almost 10 times the level used to define "lead-bearing paint" in Wisconsin.

If I want to take my own samples of paint from concrete for recycling and disposal purposes, how many samples should I take?

Take at least 1 sample from each area of painted concrete, based on consideration of the different areas of a structure:

- Interior
- Exterior
- Foundation
- Upper walls
- Each room, or other area, where differences in coatings is visually apparent or seems likely

Each sample should be taken as a composite (mixture) of all paint layers at that location. Use a sharp knife to cut down to the concrete and a sharp scraper to release the paint from the concrete. (Thoroughly wash your hands after collecting paint samples.) Prior to collecting a sample, contact a certified laboratory to find out what cost is charged, how much paint sample is needed and what type of sample container is recommended. Normally, a sealable plastic bag or clean and dry jar is suitable.

These sampling recommendations are not intended for assessment of lead hazard to occupants but are only for recycling and disposal purposes to determine if painted concrete is clean for exempt disposal.

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What are the concerns about disposal of concrete coated with lead-bearing paint and where can I get more information?

Paint that contains lead poses potential risks. In the environment, paint from concrete will chip and lead can leach from the paint over time where the painted concrete is disposed. The lead could leach into groundwater or be carried to surface water by soil erosion. If the concrete is crushed, windblown dust carrying the lead is an additional concern. Further information is available from the following sources:

- DHFS Lead homepage, http://dhfs.wisconsin.gov/lead/
- National Lead Information Center, 800-424-5323 or http://www.epa.gov/lead/pubs/nlic.htm
- Environmental Health Center, A Division of the National Safety Council http://www.nsc.org/international/env_hth_sty/Pages/EnvironmentalHealthSafety.aspx

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