



Legitimate Use of Painted Concrete

Office of Land Quality/Industrial Waste Compliance

317-234-6923 • 800-451-6027

www.idem.IN.gov

100 N. Senate Ave., Indianapolis, IN 46204

Purpose:

Construction and demolition (C&D) waste is solid waste from construction, remodeling, repair, or demolition of structures. Concrete waste is a subset of C&D waste. Every year during construction season, the Indiana Department of Environmental Management (IDEM) receives inquiries about painted concrete and options other than disposal for this waste.

Indiana's solid waste disposal and processing rules both list activities that are not subject to regulation under 329 IAC 10-3-1 (1) and 329 IAC 11-3-1 (1). The materials listed are "uncontaminated rocks, brick, concrete, road demolition waste materials, or dirt." Contaminated rock, brick, concrete, road demolition waste materials, and dirt are subject to regulation. IDEM considers paint to be a contaminant. This fact sheet focuses on disposal/use options for **painted concrete**. However, generators should evaluate all potentially contaminated concrete found on a site. Please be aware that burying contaminated concrete on-site or disposing of contaminated concrete at a clean fill site is a violation of Indiana's environmental regulations.

Management:

A person that generates contaminated concrete must first determine if the concrete is a solid waste or a hazardous waste. Contamination on concrete is typically paint, coatings, or stains from materials spilled on concrete such as oil. Paint and oil stains on concrete may contain Polychlorinated Biphenyls (PCBs) depending on the age and/or former use of the building. Contamination may not always be visible to the human eye and generators should consider prior use of the building to decide if concrete has the potential to be contaminated. While demolition contractors often perform this function, the property owner is responsible for making an accurate waste determination.

Non-hazardous contaminated concrete can be taken to a solid waste land disposal facility permitted to accept the waste such as a C&D landfill or a municipal solid waste landfill. Another option is to remove the contamination from the concrete so the concrete can meet the exclusion at 329 IAC 10-3-1 (1). Paint can be removed from concrete through a variety of methods. However, removal methods may be more expensive than disposal and may result in additional concerns. Depending on the type of paint removed, the paint on its own may qualify as a hazardous waste. The removal may also generate dust that must be managed from both an environmental and a health/safety standpoint.

In some cases, generators of painted concrete waste would like to reuse the painted concrete. IDEM regulations 329 IAC 10-3-1 (16) allow for, "Any other use of solid waste approved by the commissioner based on the commissioner's determination that the use is a legitimate use that does not pose a threat to public health or the environment."

Generators of painted concrete waste can request a legitimate use approval to reuse the painted concrete. All requests are based on both the use and the environmental testing. Approval is not based on environmental testing alone. All requests must be in writing. IDEM may approve or deny a legitimate use request and will do so in writing. The request must include the following:

1. The generator must demonstrate that the use is legitimate. To demonstrate that the use is legitimate, IDEM considers what function the concrete is providing and/or replacing. IDEM has previously approved painted concrete to be used as structural fill. Information on structural fill requirements can be found in the *Foundry Sand and other Solid Waste as Structural Fill guidance* at https://www.in.gov/idem/files/factsheet_olq_regulated_foundry_sand_structural_fill.pdf.

2. The generator must demonstrate that the use does not pose a threat to public health or the environment. In most cases, IDEM reviews analytical testing on the paint alone to demonstrate this. Each paint color and/or type must be tested separately. IDEM requires three samples per type and color. For painted concrete, at a minimum the following constituents must be tested:
 - a. Total metals;
 - b. Polychlorinated biphenyls (PCBs); and
 - c. Any other constituent likely to be in or on the concrete based on generator knowledge (i.e., the concrete is stained as well as painted, testing must include the stain on the concrete).

Testing methods and other considerations:

Factors to be aware of when submitting testing to IDEM include:

1. Laboratory analysis should be done using EPA Methods SW-846.
2. Toxicity Characteristic Leaching Procedure (TCLP) testing results are not suitable for demonstrating that the use is not a threat.
3. IDEM requires a minimum of three samples per each paint color or other contaminant (e.g., three samples of a matte white and three samples of a glossy white = six samples total).
4. Sampling must be done on the paint and not on a mix of the paint and concrete.
5. QA/QC should be submitted along with the sample results according to the following guidance: https://www.in.gov/idem/waste/files/resource_sw_data_deliverable_reqs.pdf.
6. Samples should be obtained prior to demolition of the building to ensure representative samples are obtained. Contact IDEM staff if the building is already demolished to ensure suitable sampling results can be obtained.

Legitimate use approval requests:

Requests should be submitted in writing to IDEM at 100 N. Senate Ave, Indianapolis, IN 46204 or via email at legitimateuse@idem.IN.gov. Requests should include a narrative description of the project including all supporting documentation such as:

- Analytical testing results and associated QA/QC;
- A construction quality assurance/construction quality control (CQA/CQC) plan or design specifications;
- Any other supporting documentation needed to demonstrate the use is legitimate and does not pose a threat; and
- Requests should be made on the Legitimate Use Application Checklist (State Form # 52594).

Requests should be made a minimum of 60 days before the construction begins to ensure that IDEM has adequate time to review the request. A use cannot begin unless IDEM has issued a written approval. Be aware that the approvals will have conditions such as:

- Completion deadlines
- Environmental restrictive covenants (ERCs) or deed notations
- Limitations on placement (e.g., must be placed above the water table or cannot be placed in a wetland)
- Cover material (see IDEM guidance Engineering Control: Covers)

When making a determination, IDEM first considers if the use is legitimate. While IDEM will usually consider structural fill as a legitimate use, general fill applications are not considered legitimate. Once it has been determined that there is a legitimate use, IDEM will then determine if the use will pose a risk. IDEM takes both the protections (e.g., cover type, location of use) along with test results into account when planning. IDEM will also compare the results obtained to the Remediation Closure Guide Screening Levels and to other appropriate regulatory thresholds (e.g., PCB regulations) to help determine if the use will pose a risk to public health or the environment. IDEM will generally approve legitimate uses if the contaminants are less than the residential screening levels in the Remediation Closure Guide or less than 1 ppm for PCBs. IDEM may approve numbers exceeding residential screening levels depending on the use, location, and cover type being applied. After evaluating all information submitted, IDEM will issue a determination in writing (either an approval or denial). Questions concerning Legitimate Use can be directed to 317-234-3540 or via email at legitimateuse@idem.IN.gov.