
Disposal and Beneficial Use of Construction and Demolition Debris

PURPOSE

This educational guideline outlines the management and disposal options for construction and demolition debris (C&DD).

APPLICABLE RULES/STATUTES

C&DD: OAC 3745-400-01
OAC 3745-400-03(C)
OAC 3745-400-04
OAC 3745-400-05
ORC 3714.01
ORC 3714.04

CROSS REFERENCES

0563 *Clean Hard Fill*
0546 *Exemptions for Construction and Demolition Debris Disposal*
0654 *Alternative Daily Cover (ADC) Requests*
Office of Compliance Assistance & Pollution Prevention: C&DD Recycling Guidebook
Office of Compliance Assistance & Pollution Prevention: C&DD Recyclers

APPLICABILITY

This guidance document is applicable to anyone managing C&DD.

DEFINITIONS

OAC 3745-400-01(E) states "'Clean hard fill' means construction and demolition debris which consists only of reinforced or nonreinforced concrete, asphalt concrete, brick, block, tile, and/or stone which can be reutilized as construction material. Brick in clean hard fill includes but is not limited to refractory brick and mortar. Clean hard fill does not include materials

contaminated with hazardous wastes, solid wastes, or infectious wastes."

Clean hard fill cannot contain wood, shingles, wallboard or other types of C&DD or other wastes. See also DSIWM guidance #0563 *Clean Hard Fill*.

ORC 3714.01(C) states "'Construction and demolition debris' means those materials resulting from the alteration, construction, destruction, rehabilitation, or repair of any physical structure that is built by humans, including, without limitation, houses, buildings, industrial or commercial facilities, or roadways. 'Construction and demolition debris' includes particles and dust created during demolition activities. 'Construction and demolition debris' does not include materials identified or listed as solid wastes or hazardous waste pursuant to Chapter 3734. of the Revised Code and rules adopted under it; materials from mining operations, nontoxic fly ash, spent nontoxic foundry sand, and slag; or reinforced or nonreinforced concrete, asphalt, building or paving brick, or building or paving stone that is stored for a period of less than two years for recycling into a usable construction material."

If the waste is from a manufacturing process, it's not C&DD, it is solid waste. If the debris is not identifiable as coming from construction or demolition activities, then it is to be managed at least as a solid waste.

OAC 3745-400-01(G) states "'Construction and demolition debris facility' or 'facility' means any site, location, tract of land, installation, or building used for the disposal of construction and demolition debris."

OAC 3745-400-01(N) states "'Disposal' means

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the discharge, deposit, injection, dumping, spilling, leaking, emitting, or placing of any construction and demolition debris into or on any land or ground or surface water or into the air, except if the disposition or placement constitutes storage, reuse, or recycling in a beneficial manner."

OAC 3745-400-01(II) states "'Recycling' means processing a material using such methods, including but not limited to, screening, sorting, or shredding, for use in a beneficial manner that does not constitute disposal."

For purposes of this document, disposal includes the beneficial use of C&DD where that use results in placement of C&DD into or on any land or ground or surface water. Using C&DD to make another product (e.g. concrete), is considered recycling.

OAC 3745-400-01(LL) states "'Reuse' means reincorporating a material as a part of a structure and does not include reincorporating a material as fill."

OAC 3745-400-01(OO) states "'Storage' means the holding of debris for a temporary period in such a manner that it remains retrievable and substantially unchanged and, at the end of the period, is disposed, reused, or recycled in a beneficial manner."

To qualify as storage, the activity must meet all four criteria (temporary, retrievable, unchanged, and is disposed, reused, or recycled).

DETAILED DISCUSSION

C&DD can be recycled or reused. C&DD can be incorporated into a product. C&DD can be stored temporarily.

OAC 3745-400-03(C) states that any site where debris is not disposed, such as where debris is reused or recycled in a beneficial manner, or stored for a temporary period remaining unchanged and retrievable, is excluded from regulation as a C&DD facility. Thus, any C&DD

material that is actively reused, or processed for recycling or for production or incorporation into a product, is not regulated until it is disposed, at which time, its disposal may be regulated under either ORC Chapter 3714 or 3734 as appropriate.

The Office of Compliance Assistance & Pollution Prevention maintains recycling documents that are found at: www.epa.state.oh.us/ocapp/p2/online/docs.html. You will find the C&DD Recycling Guidebook as well as a list of C&DD recyclers under the Sectors Index/Recycling link.

C&DD can be used as fill material or for agronomic benefit.

With the exception of two cases where certain types of C&DD are used as fill material, all instances of using debris as a fill material or for agronomic benefit are considered disposal. A location where this occurs is regulated as a facility (requiring an annual license).

The two exceptions are:

- 1) Clean hard fill can be used in legitimate fill operations. See OAC 3745-400-05 for instructions as to when a Notice of Intent to Fill is required.
- 2) Debris, trees, and brush removed in clearing a construction site (not a demolition site) may be used as fill material on the site of generation. ORC Section 3714.01(E) states that a facility "does not include any construction site where construction debris and tree and brush removed in clearing the construction site are used as fill material on the site where the materials are generated or removed..."

Prior to use, anyone wanting to beneficially use C&DD must either obtain an annual license or obtain an exemption from the facility license requirement and from compliance with OAC 3745-400 and ORC 3714.

If an exemption is sought, the request should be submitted to the licensing authority which is

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either:

- The local health department, if the site where the disposal will occur is in the jurisdiction of an approved health department (DSIWM maintains a list of Approved Health Departments, available at: www.epa.state.oh.us/dsiwm/pages/general.html), or
- The Ohio EPA, DSIWM district office with jurisdiction over the site where the disposal will occur if the local health department is not approved.

It is recommended that the exemption request also address the following regulatory considerations:

- The C&DD is not mixed with other types of waste. If it is mixed with other types of waste, such as solid waste, the health department does not have the authority to approve the exemption.
- The debris or waste has not been rendered so that it is not identifiable as C&DD.
- Granting the exemption will not adversely affect the public health or safety or the environment and will not create a fire hazard.
- The C&DD is not placed in a 100-year floodplain and will not result in the increase of more than one foot in the elevation of the flood stage of the watercourse upstream or downstream of the intended placement. ORC Section 3714.04 prohibits granting such an exemption.
- The C&DD is not placed above a sole source aquifer. ORC Section 3714.04 prohibits granting such an exemption.

For more information regarding exemption requests for C&DD, see the Ohio EPA policy DSIWM 00-400-0546 titled *Exemptions for Construction and Demolition Debris Disposal*.

C&DD can be disposed in a licensed facility.

The C&DD rules establish acceptable disposal methods for C&DD and allow for recycling, reuse, and storage. OAC 3745-400-04 states that C&DD can be disposed:

- at a licensed C&DD disposal facility.
- at a licensed solid waste facility (landfill, incinerator, or composting facility).
- by open burning, if permitted pursuant to OAC 3745-19.
- by another method approved by the licensing authority.

DSIWM maintains a list of licensed disposal facilities at: www.epa.state.oh.us/dsiwm/pages/general.html.

If the C&DD is NESHAP regulated asbestos, a list of landfills that are permitted to accept NESHAP regulated asbestos is maintained by the Division of Air Pollution Control at: www.epa.state.oh.us/dapc/atu/asbestos/asb_land.html.

FREQUENTLY ASKED QUESTIONS

Q1. I want to demolish my barn, bury the debris on my property, and build a new barn. What approval do I need to obtain before I can bury the barn debris on my property?

A1. Because neither the statute (ORC Chapter 3714) nor the rules (OAC 3745-400) which regulate C&DD exempt individual property owners from having to comply with the requirements contained in the regulations, it is necessary to obtain an exemption from the licensing authority prior to burying the debris. Without the exemption, burial of the barn debris would be illegal disposal of C&DD.

Q2. I have a load of old lumber from a demolition site that I would like to chip and use as material to create a recreational trail on another property. What approval do I need to receive before I can place the chipped wood?

A2. C&DD which has been processed into a saleable or marketable product is not

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required to be managed as C&DD. As long as the chipped wood C&DD is used as mulch would normally be used, its placement onto the ground as mulch does not constitute disposal.

However, if use of the chipped wood C&DD is not typical for mulch, or if the storage of the lumber or mulch causes a nuisance, changes the material, or makes it no longer retrievable, then the activity may be viewed as illegal disposal of C&DD and the owner of the material or property where the material is placed may be subject to enforcement. Both the provider and user of the chipped wood C&DD should also be aware that they are liable for any adverse environmental impacts that may occur due to the mismanagement of the chipped wood C&DD or any contaminants that may be present (e.g. coatings or chemically treated wood).

Q3. *I have a load of old lumber from a demolition site that I would like to chip and use as fuel in an industrial boiler. What approval do I need to receive?*

A3. As long as the C&DD is used in an industrial process or fuel-burning equipment as fuel, it does not constitute disposal. The industrial process or fuel-burning equipment may be subject to regulation through the Division of Air Pollution Control pursuant to OAC 3745-17. The burning of the C&DD may also affect emissions so the user of the C&DD fuel should confirm that existing air permits are sufficient and that burning the C&DD fuel will not be a violation.

However, if the storage of the C&DD causes a nuisance, changes the material, or makes it no longer retrievable, then the activity may be viewed as illegal disposal of C&DD and the owner of the material or property where the material is placed or burned may be subject to enforcement. Both the provider and user of the C&DD fuel should also be aware that they are liable for any adverse environmental impacts that may occur due to the mismanagement of the C&DD or any

contaminants that may be present (e.g. coatings or chemically treated wood).

Q4. *I want use C&DD as a fill material at multiple sites. What sort of approval do I need to obtain before I can do this?*

A4. The use of C&DD (besides clean hard fill) as fill material is considered disposal. Therefore, you will need to request and receive either a C&DD facility license for each location or an exemption from needing an annual license to operate a C&DD disposal facility and from compliance with OAC 3745-400 and ORC 3714.

The location of the sites where the C&DD is to be placed, whether distributed across the state (i.e. within the jurisdiction of multiple licensing authorities) or are all within the jurisdiction of one licensing authority, will determine who will review and approve or deny the license or exemption request. If the multiple sites are located within the jurisdiction of more than one licensing authority, then you will need to obtain a facility license or exemption from each licensing authority before beneficially using the C&DD within that jurisdiction. Furthermore, the decision as to whether or not to approve the disposal at each site will be up to the discretion of each licensing authority and will occur independent of the decisions made by other licensing authorities. If the multiple sites are located within the jurisdiction of one licensing authority, each site will need to obtain its own facility license, however, if an exemption is requested, it will be up to the individual licensing authority whether to issue an exemption for each site or to issue one exemption for each individual site listed.

Q5. *I am an operator of a solid waste landfill facility and I want to use C&DD as alternative daily cover at my facility. What approval do I need to get before I can do these activities and from whom do I request the approval?*

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A5. Using C&DD at a solid waste landfill facility is handled differently from other types of beneficial uses. Because the C&DD statute allows C&DD to be disposed at a solid waste landfill facility, it is not necessary to obtain an exemption from the requirements of the C&DD rules to use C&DD as alternative daily cover at a solid waste landfill facility. The Ohio EPA, DSIWM will have full responsibility for reviewing each request on a case-by-case basis. See 0654 *Alternative Daily Cover (ADC) Requests* for more information about ADC requests.

The owner or operator of the solid waste landfill facility, in accordance with ORC 3714.07, is required to collect disposal fees when accepting C&DD for disposal.

Q6. *What type of approval is needed when clean hard fill is to be used to change the grade on a site other than the site of generation?*

A6. OAC 3745-400-05 allows clean hard fill to be used as structural fill on a site other than the site of generation provided that the person wanting to place the material sends to the licensing authority a written Notice of Intent to Fill at least seven days prior to placing the clean hard fill. No additional approval is needed from the licensing authority before the filling activity can occur. The person wanting to use the clean hard fill is required to include the following information in the Notice of Intent to Fill:

- The type of fill material that will be used (i.e. the composition of the fill material);
- the location where the fill material was generated;
- the location where the fill material will be placed;
- when the filling will occur, including the date filling will begin and the date it will end; and
- the telephone number of the person submitting the Notice of Intent to Fill.

Q7. *What type of approval is needed when clean hard fill is to be used as road bed material?*

A7. Using clean hard fill as road bed material would qualify as recycling clean hard fill into a usable construction material, or reuse of stone. Therefore, anyone wanting to conduct this activity would not need to notify nor would they need to obtain approval from the Ohio EPA prior to conducting the activity.

Q8. *How long can I store C&DD?*

A8. Storage must be for a temporary period. The length of time will depend on what the material is and how it is stored. The material must be stored in a manner such that the material is retrievable and is substantially unchanged. Dumping debris over the side of a hill probably would not be considered retrievable. If leachate and odors are emanating from the material, it probably would not be considered substantially unchanged. The material eventually needs to be taken elsewhere for disposal, reuse, or recycling. If materials accumulate, and are not actively being processed, then this action may be considered illegal disposal and not storage.

Note: The above also applies to clean hard fill stored for a period of two years or more.

Q9. *If concrete isn't used at a construction site, can it be dumped out, allowed to set-up, and be broken apart in order to be considered clean hard fill?*

A9. Yes. Typically waste from the manufacture of construction materials is solid waste. However, for leftover concrete from a construction site that is allowed to set-up, it is considered clean hard fill. The unused concrete can be taken back to the concrete plant or be taken to another site to set-up.

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