

**GUIDELINE FOR CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT**

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**DEFINITION**

Construction and demolition waste (C&D waste) is defined as material from the construction, remodelling, repair or demolition of buildings, bridges, pavement, roads and other structures.

C&D waste consists of the primary building materials: wood, concrete, metal, drywall, and asphalt and a variety of secondary products and materials. Secondary materials that may also make up C&D waste include empty paint, sealant, and adhesive containers, and insulation materials used in construction; packaging materials, shingles, rubble, bricks, tiles, ceramics, glass, plastics, tar and tarred products, and plaster; soil and land clearing debris; and many miscellaneous and composite materials.

**BACKGROUND**

The disposal of construction and demolition wastes has become a major concern in recent years. Some building owners, waste haulers and demolition contractors are disposing of C&D waste improperly and illegally in order to avoid transportation costs and tipping fees at waste disposal facilities. In addition, some small rural landfill operators may discourage haulers from disposing of C&D materials at sites due to limited landfill capacity. Illegal disposal sites have been discovered in gravel pits and groundwater recharge areas, on farmland, and prime residential property, and in borrow pits and low lying areas.

In some instances, private property owners are allowing C&D waste and not “clean fill” to be dumped and used as backfill material to build up land and/or to fill in excavation or borrow pits. They may not be aware that this practice is in contravention of Manitoba Regulations that require all wastes to be disposed at approved waste disposal facilities.

**CONCERNS**

The land disposal of C&D waste presents a threat of groundwater contamination because of trace amounts of hazardous constituents, which are sometimes encountered. The potential for groundwater contamination results from small amounts of hazardous materials, such as organic compounds or heavy metals that may be present in substances that have been applied to construction materials, or by the improper disposal of residues or bulk chemicals in the C&D waste stream. Degradation of groundwater quality may also result from larger amounts of generally non-toxic chemicals, such as chloride, sodium, sulphate, and ammonia that may be present in leachate generated from C&D waste materials (e.g. wood, concrete, metal, drywall, asphalt) when landfilled. Therefore, the improper disposal of C&D waste does pose a threat to groundwater quality. These waste materials must be disposed of in an environmentally responsible manner, and at approved waste disposal facilities.



The indiscriminate disposal of C&D waste will likely have long term impacts on the environment. Effective enforcement of proper disposal practices is needed to provide for adequate safeguards that minimize the potential for environmental pollution. In addition, the use of C&D waste as backfill material may limit the future use of the property.

An illegal disposal site may also attract the illegal disposal of other types of waste, including conventional municipal waste, industrial waste and hazardous waste. This would further impact the site and increase the future costs for cleaning up an impacted or "contaminated" site.

## **BURNING**

The open burning of demolition material is a major concern and is prohibited unless otherwise approved by the Director. Plastic material, insulation foam, shingles, painted or treated wood, etc. will give off toxic fumes when burnt. Demolition material from warehousing buildings, industrial and agricultural facilities may be contaminated with chemicals from spillage or from their normal operation. Leachate from the ashes may impact the groundwater. Health Canada advises that "Burning any form of treated wood represents a health hazard and should be avoided."

## **LEGISLATION**

The illegal disposal and/or burning of C&D waste or any other type of waste is in violation of the following Manitoba Regulations:

- Waste Disposal Grounds Regulation (150/91)
- Litter Regulation (92/88R)
- Insanitary Conditions Regulation (325/88R)

With respect to a violation of the above Regulations, Section 31 of The Environment Act stipulates that "for each day, the contravention or violation continues, the offender is guilty of a separate offence."

## **RESPONSIBILITIES**

It is the responsibility of the local municipal government to make provision for the disposal of solid waste generated within their jurisdiction. "To make provision" is interpreted as providing an approved disposal site, or to make arrangements, or have an agreement with another approved site to accept their waste.

It is the responsibility of the building owner, demolition or hauling contractor to dispose of C&D waste at an approved waste disposal ground. The demolition contractor should consider the hauling and disposal cost when submitting a bid for a demolition contract. Open burning of C&D waste is not an acceptable form of waste management.

It is the responsibility of the landowner to ensure that only "clean fill" or "acceptable backfilling material" (see guidelines on following pages) is used for backfilling on their property. In addition, the private property owner may be held responsible for the removal and disposal of any illegally disposed waste from their property.

It is the responsibility of Manitoba Conservation to enforce the above stated regulations and to work with municipal governments and stakeholders to address the problems associated with the improper disposal of C&D waste and to develop appropriate solutions.

## **SOLUTIONS**

Manitoba Conservation recognizes that developing solutions to address the problems associated with C&D waste management requires multi-sectoral input. Diversion of

C&D materials from the landfill through building deconstruction, material separation and other 3R's (reduce, reuse and recycling) initiatives is encouraged. Recycling or alternate waste diversion options (other than burial or burning) should be fully investigated prior to disposal of C&D wastes. The Department continues to investigate options for C&D waste management with stakeholders.

In an effort to promote proper waste management practices and to divert C&D waste from waste disposal grounds, The Winnipeg Construction Association has published an *Environmental Code of Practice for Construction and Demolition Solid Waste Minimization*. Copies are available from the Winnipeg Construction Association at (204) 775-8664.

In the interim, the following disposal guidelines have been established to provide guidance to local governments, building owners, landowners, and demolition and hauling contractors.

## **C&D WASTE MANAGEMENT GUIDELINES**

1. Using C&D waste, as backfilling material is not allowed. Only concrete, with or without steel, bricks or other type of masonry waste is permitted as backfill material. Regulatory authorities should be consulted prior to proceeding with alternate uses of acceptable backfill, such as using concrete or bricks for rip-rapping or bank stabilization.
2. The disposal of C&D waste is acceptable only at an approved waste disposal ground. "Approved" means a disposal site that has an Operating Permit issued by the Department under Waste Disposal Grounds Regulation (150/91), or Licence under The Environment Act.

3. When hazardous materials are present in C&D waste, they must be removed and handled separately.
4. The disposal of C&D waste at a closed waste disposal ground is not allowed unless the proponent can demonstrate that this activity will not impact the site (e.g. groundwater). Such a proposal is considered to be the same as the establishment of a C&D waste disposal ground (refer to Point #6 below).
5. Burning C&D waste at the demolition site is not acceptable. Burning of C&D waste at a waste disposal ground is only permissible when the burning and the material to be burnt meets the conditions stipulated in the Operating Permit of the waste disposal ground.
6. A disposal site established for the disposal of C&D waste is regulated as a waste disposal ground under the Waste Disposal Grounds Regulation. Anyone wishing to establish a C&D disposal ground is required to submit a proposal to Manitoba Conservation for approval and an Operating Permit. The proposal shall include the following:
  - (a) All relevant information as outlined in Schedule A of the Waste Disposal Grounds Regulation.
  - (b) An engineering assessment of the suitability of the proposed site.
  - (c) Proposed operating procedures for the site.

### **NOTE:**

If the proposal is approved, the Operating Permit will likely restrict the disposal site to accept C&D waste only, and open burning of material will be restricted.

7. An Environment Licence is required for the establishment of a C&D waste processing/recycling facility, which may include crushing, shredding, or mechanical sorting of material. C&D processing/recycling may be approved at Waste Disposal Grounds under the facilities operating permit or licence.
8. Temporary storage of concrete, bricks, masonry material, or other designated C&D materials on site for future use is acceptable provided there is no burning or burial of waste, and no material processing activities. The site owner must advise Manitoba Conservation the length of time the material will be stored.

**FOR ADDITIONAL INFORMATION,  
PLEASE CONTACT ONE OF THE FOLLOWING REGIONAL OFFICES:**

**RED RIVER REGION**

123 Main Street, Suite 160  
Winnipeg MB R3C 1A5

Telephone: (204) 945-0675  
Facsimile: (204) 948-2338

**NORTHWEST REGION**

P.O. Box 2550, Provincial Bldg.  
The Pas MB R9A 1M4

Telephone: (204) 627-8307  
Facsimile: (204) 623-1773

**INTERLAKE REGION**

Box 6000  
Gimli MB R0C 1B0

Telephone: (204) 642-6091  
Facsimile: (204) 642-6108

**HEADQUARTERS OPERATIONS**

200 Saulteaux Crescent  
Winnipeg MB R3J 3W3

Telephone: (204) 945-2100  
Facsimile: (204) 945-7782

**WESTERN REGION**

1129 Queens Avenue  
Brandon MB R7A 1L9

Telephone: (204) 726-6442  
Facsimile: (204) 726-6301

**EASTERN REGION**

Box 4000  
Lac du Bonnet MB R0E 1A0

Telephone: (204) 345-1444  
Facsimile: (204) 325-1440

**NORTHEAST REGION**

59 Elizabeth Drive  
Thompson MB R8N 1X4

Telephone: (204) 677-6703  
Facsimile: (204) 677-6652

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