Compaction and Covering at Waste Disposal Grounds

To prevent the public from referring to your solid waste management facility as the "Dump" or the "Nuisance Ground", operate your waste disposal ground using the following methods:

- Control access by fencing, locking the gate and site supervision during hours of operation;
- Separate wastes for storage, treatment or disposal in designated areas; and
- Compact and cover at the designated area known as the working face.

Compaction and covering at the working face achieves several components of operations, maintenance, environmental and legal aspects at waste disposal grounds. This includes:

- Litter control;
- Odour control;
- Rat and vermin control;
- Fire control;
- Prevention of leachate production;
- Public safety;
- Extended life of the trench;
- Aesthetics; and
- Liability prevention.

Litter Control

Litter control by compacting and covering at the working face is one of the most important management aspects. While litter does not pose any significant environmental problem, it holds a major place in public perception of site maintenance and impacts on neighbouring land uses. Litter can be one of the prime reasons for the NIMBY (Not in My Back Yard) syndrome when a new waste disposal ground or an expansion is proposed, since prospective neighbours will not want to live near an untidy waste disposal ground.

Garbage compaction and covering on a regular basis, while maintaining a minimum sized working face, reduces exposure to wind and provides greater control of the waste. This reduces the amount of time required by staff to collect wind-blown litter on-site and primarily off-site.

Rat and Vermin Control

Regular compaction and covering at the working face is essential to eliminate access to a food supply and refuge at a waste disposal ground. This, coupled with maintaining a small working face free of large bulky items (metals, rubble), ensures a poor food supply for vermin. It discourages burrowing and harbourage by eliminating voids and increases the human activity at the working face which deters vermin.

Fire Control

Burning of the working face is prohibited. Compaction and covering activities will decrease the volumes of fuel and the size of the working face reducing the chance of fires. Combustible materials in designated areas (tires, trees) should be kept well separated from the working face to avoid the spread of fires to the working face.

Prevention of Leachate Production

Compaction and covering with proper grading will encourage positive drainage away from the landfill cell rather than encouraging infiltration and eventual leachate production. Compaction and covering within a trench at a smaller site, with provisions for drainage away from the working face, will aid with the operation of the site and minimize leachate production.

Public Safety

Compaction and covering reduces the amount of exposed waste at the working face. This reduces the availability of waste to scavengers who could put themselves at risk when opening bags or rifling through waste. Scavengers are often the cause of excess litter and unnecessary fires at waste disposal grounds. At unsupervised waste disposal grounds where scavengers have free access, compaction and covering on a regular basis will be a large benefit in site operations and maintenance.

Life Extension of the Waste Disposal Ground

Minimum compaction and covering when the trench is full can double the life of the working face. Regular compaction and covering in layers can increase the life of the working face by ten times depending on machinery used and the thickness of waste layers.

Most small municipalities do not have ready access to machinery. If only "soft" garbage is disposed of at the working face, the ramp method can be used for disposal where users of the site effectively compact the refuse as the working face extends outward.

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Waste Disposal Ground Aesthetics

Aesthetics and tidiness at the waste disposal ground goes a long way to show users the site is being managed rather than being a place to dump waste haphazardly. Compaction and cover provides evidence to users that the site is well managed and should be used accordingly.

Odour Control

Compaction and covering reduces odours at the working face primarily during the warmer months. Odour control increases the aesthetics of the site and reduces the chance of attracting vectors such as flies, rats, gulls, skunks and bears.

Liability Prevention

Compaction and cover reduces liability for fires, disruption of agricultural activities off site, and potential off site contamination of groundwater and surface water resources. Consult your local SE office to determine the frequency of compaction and covering which best suits your waste disposal ground. The guide below provides general recommendations.

Cover/Compaction Frequency Guide

The following is used by SE to determine the frequency of compaction and cover of the working face at waste disposal grounds:

- Working face (size);
- Designated areas (number, maintenance);
- Supervised facilities and locked or unlocked gates;
- Active complaints (litter, burning, vermin);
- Type of operation (trench, mound, ramp);
- Litter control (fencing, retrieval); and
- Isolation distance (close proximity to residences).

Community Population	Cover/Compaction Frequency Range
<500	2 times/year to 6 times/year
501 - 1000	2 times/year to 8 times/year
1001 - 2000	1 time/month to 2 times/month
2001 - 3000	1 time/month to 3 times/month
3001 - 5000	1 time/week

It is predictable cover material may freeze in the winter months making covering of refuse difficult. Communities should make every possible effort to ensure cover material such as uncompacted native material or light, sandy soil is available for winter operations.

Please reference SE's website at **www.se.gov.sk.ca** for EcoRegion contacts for your area.

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