EVERYTHING YOU Should Know About Landfill

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INTRODUCTION

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Though you might think that landfill is simply a case of dumping waste in a large hole, there is a lot more planning involved in landfill. The site has to be properly prepared to ensure that the waste does not interact with the environment or contaminate any groundwater.

HOW IS A LANDFILL Site created

To create a landfill site, first the ground must be dug out and a lining placed. This is to prevent the landfill waste slipping or interacting with the environment and to prevent any leakages.

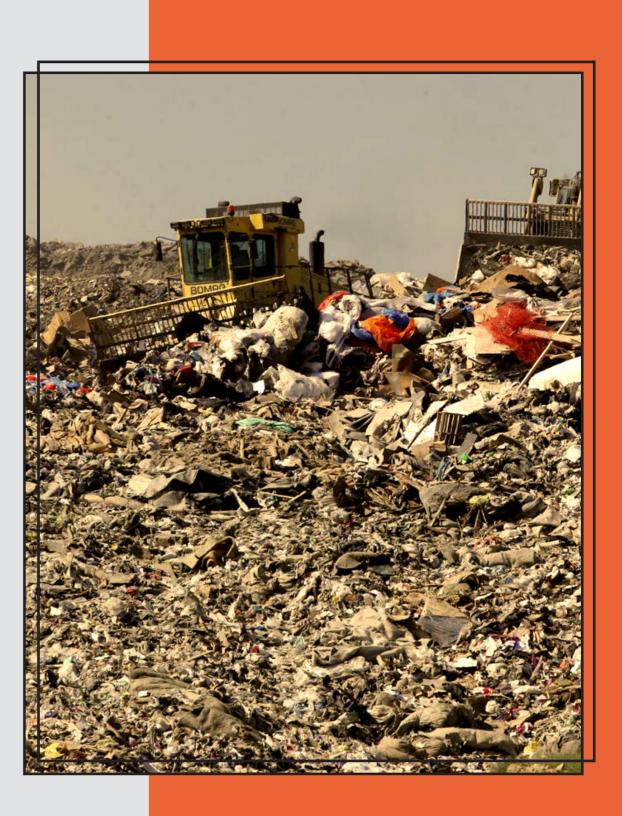
The lining is usually made up of 6 parts:

A layer is placed to smooth the surface

- **2** A layer of clay is added to help prevent liquid escaping
- **3** A plastic liner is placed on top to create an extra barrier
- A geotextile is also added to strengthen the barrier

5 A layer of gravel is added to filter larger particles

Finally another layer of geotextile is added



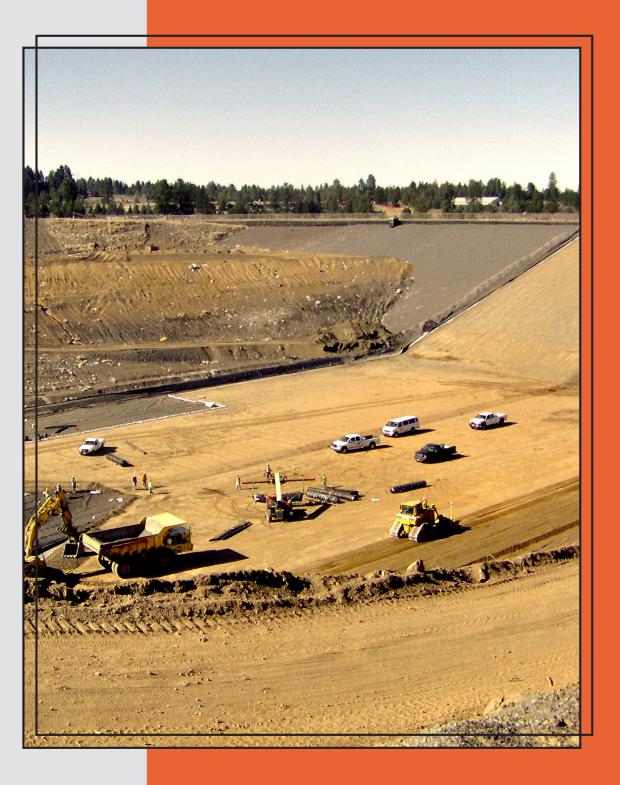
HOW IS A LANDFILL Site created

All of these different linings are vital because they each prevent different types of waste from reaching the soil and permeating it. This is essential because if the landfill is being used to contain hazardous waste, it must remain completely separate with absolutely no leakage.

When adding the waste, smaller cells are created and built up over time. As the waste goes in, inert soils and other matter is piled and then rolled on top to prevent the smell of the waste getting too bad. Finally, once a cell of waste is complete, a plastic cap will be put over the top to keep the waste in place. When the landfill site is complete, the land on top may be restored and safely used, depending on the type of waste that has been buried.

Many landfill sites are also fitted with gas extraction wells to get rid of any excess gas as the waste decomposes. While this method of disposal doesn't work like compost and the waste won't break down quickly, gases will be released over time. The gas must be allowed to escape the landfill to prevent any accidents.

Similarly, landfill sites are often fitted with sumps and storage tanks to collect any water that runs through the waste. This water is then taken away to be treated and then safely disposed of.



WHAT CAN GO IN LANDFILL?

In theory, all waste types can go into landfill as it is a secure way to dispose of waste. However, in practice this is not a good solution. For one thing, many waste types can be reused, recycled or recovered and so shouldn't be filling up our limited amount of land.

Before you send your waste to landfill it is likely that it will need to be treated first. This is a very practical consideration to take as this will add to the cost of disposal. You should also take the landfill tax into consideration as this makes landfill a much more expensive option and has been designed to persuade business owners to think more laterally about what they can and should be doing with their waste.

Since 2004, the UK has split landfill sites so that codisposal is no longer an option. This means that sites will now offer disposal of hazardous waste OR non-hazardous waste OR inert waste and will not accept any mixed wastes.

WHAT IS THE EU DIRECTIVE For Landfill?

The Landfill Directive (1999/31/ EC) was originally written to make some serious changes to the way that we treat landfill in Europe. An over-reliance on landfill is a problem because it is poor resource management and is having an impact on our landscapes.

The Directive meant that some types of waste have been banned from going to landfill such as car tyres, which are now shredded and recycled and liquids. Other types of waste such as explosives, flammables and hospital and clinical wastes have also been banned as they are a potential threat to health and safety.

But the directive has also affected other areas of waste and set targets for reducing the amount of biodegradable waste headed for landfill. We are now on track for the 2020 target of sending just 35% of biodegradable waste to landfill (compared to waste sent in 1995). This is a great show of how we can work to solve problems and make significant changes when we try.



WHY SHOULD BUSINESSES Avoid Landfill?

To keep up with the targets set by the directive and to encourage businesses to be much more responsible with their waste, a landfill tax has been applied. This makes putting waste into landfill more expensive and so should encourage business owners to look at more environmentally friendly solutions which are also made much cheaper. In fact, if you have some types of waste that are actually valuable in another industry, with the right contacts you could dispose of your waste for free or even make a small profit.

Another reason that businesses should avoid landfill is about the trend for environmentally conscious businesses. As more and more businesses come to understand the implications of their waste management processes, it is a much more attractive proposition to be able to market yourself as environmentally friendly. On the flip side, discovering poor practises and being outed in public is a huge detriment to any business and not a risk worth taking compared to the benefits of disposing of your waste properly.



While landfill is still a good way to dispose of some more problematic types of waste, in general, the rule should be that you find alternative methods first and then use landfill as a last resort. This is much better for the environment, ideal for saving you some money and just what your business image needs.







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