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| **Landfill Non-Hazardous** |
| Revision Summary |
| Version 1, April 2016 |



**CIWM/WAMITAB**

**Continuing Competence**

**Part of the CIWM/WAMITAB**

**Operator Competence Scheme**

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# Introduction

## About WAMITAB

WAMITAB is an awarding organisation and charity that develops qualifications for those working in cleaning; street cleansing; facilities management; resource management and recycling and parking from operative through to management level.

Since it was formed in 1989, WAMITAB has evolved in line with the convergence between the sectors with a clear focus on promoting and supporting environmental sustainability.  With over 120 qualification pathways and 70 quality assured centres, WAMITAB offers an unrivalled specialist network to support staff development.

## What is Continuing Competence?

The CIWM/WAMITAB continuing competence scheme is designed to ensure that the technically competent person (holds a certificate of technical competence, units or a qualification that is part of the CIWM/WAMITAB Operator Competence Scheme) on a waste site has knowledge and skills that keep pace with changes made across the waste management industry, such as the introduction of new legislation, technologies and techniques.

The CIWM/WAMITAB continuing competence scheme requires technically competent people in England and Wales to pass an assessment that demonstrates individuals have kept their competence up to date.

Keeping competence up to date is becoming increasingly important across the UK as society starts to recognise the crucial role waste and resource management industry professionals play in ensuring that the 434 million tonnes of waste generated every year can be treated, reused and recycled to produce a product that will contribute to further economic growth.

## About this Revision Summary

WAMITAB recognise the diverse needs of learners within the sectors we represent. To support those individuals undertaking their Continuing Competence test, we have developed this revision summary.

This revision summary is designed to support you preparation by linking the learning outcomes with the areas that may come up during the Continuing Competence test.

# 1. Background

## Learning Outcomes

1.1 Know the legislation relevant to landfill:

* Design
* Construction
* Operation
* Closure
* Aftercare

1.2 Know what is included in a site specific, written management system.

1.3 Know the principles of financial provision for landfill.

1.4 Know when to undertake a financial provision assessment.

1.5 Know the timeframe and financial costs for the aftercare period according to guidance.

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## Where do I find this information?

<https://www.gov.uk/government/publications/understanding-the-landfill-directive-lfd-1>

<https://www.gov.uk/government/publications/landfill-sector-technical-guidance>

<https://www.gov.uk/government/publications/financial-provision-for-landfill>

## Notes

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## Learning Outcomes

2.1 Know the principles of ‘containment’.

2.2 Know the characteristics of liner and capping designs.

2.3 Know the elements of site construction which require Regulator approval.

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## Where do I find this information?

<https://www.gov.uk/government/publications/our-approach-to-landfill-engineering-lfe1>

<https://www.gov.uk/government/collections/environmental-permitting-landfill-sector-technical-guidance>

# C:\Users\Helen\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\FJ1S42NY\MC900432680[1].png3. Waste Acceptance

## Learning Outcomes

3.1 Know how waste acceptance procedures and criteria apply to hazardous waste landfills.

3.2 Know which wastes are banned from landfill and when to reject wastes.

3.3 Know how to determine that a waste is liquid.

3.4 Know the standards required for accepting asbestos.

3.5 Know the requirements for on-site verification and sampling of waste received.

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## Where do I find this information?

[GOV UK Waste Acceptance at landfills](https://www.gov.uk/government/publications/waste-acceptance-at-landfills)

[Technical Guidance WM3: Waste Classification – guidance on the classification and assessment of waste.](https://www.gov.uk/government/publications/waste-classification-technical-guidance)

# C:\Users\Helen\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\FJ1S42NY\MC900432680[1].png4. Pollution Sources – Landfill Gas

## Learning Outcomes

4.1 Know the principle reasons why landfill gas management is important.

4.2 Know what elements should be covered in a landfill gas management plan.

4.3 Know what should be included in a landfill gas monitoring and sampling plan.

4.4 Know the actions to take if a perimeter borehole contains landfill gas components (methane, CO2) at a range of levels including above a compliance limit.

4.5 Know what data should be recorded for each gas monitoring point.

4.6 Know why landfill gas should be collected, utilised and treated.

4.7 Know why it is important to control landfill gas and manage gas field balancing.

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## Where do I find this information?

[GOV.UK Environmental Permitting: Landfill sector technical guidance](https://www.gov.uk/government/collections/environmental-permitting-landfill-sector-technical-guidance)

[GOV.UK – Guidance on the management of landfill gas, LFTGN03](https://www.gov.uk/government/publications/management-of-landfill-gas-lftgn-03)

[GOV.UK – Landfill: How to comply with your permit: Additional guidance](https://www.gov.uk/government/publications/landfill-sector-technical-guidance)

[GOV.UK LFTGN04: guidance for monitoring trace components in landfill gas.](https://www.gov.uk/government/publications/monitoring-trace-components-in-landfill-gas-lftgn-04)

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## Learning Outcomes

5.1 Know the requirements for managing leachate.

5.2 Know why leachate levels must be maintained below a limit.

5.3 Know the procedures for dealing with leachate above control levels and if a breach of compliance limit occurs.

5.4 Know the principles of leachate treatment and the associated pollution risks.

5.5 Know the requirements for a leachate re-circulation system including the infrastructure and precautions.

5.6 Know what information should be in a hydrogeological risk assessment.

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## Where do I find this information?

[Gov.UK: Guidance for the treatment of landfill leachate](https://www.gov.uk/government/publications/treatment-of-landfill-leachate)

[GOV.UK LFTGN02: guidance on monitoring of landfill leachate, groundwater and surface water](https://www.gov.uk/government/publications/monitoring-of-landfill-leachate-groundwater-and-surface-water-lftgn-02)

[GOV.UK – Landfill: How to comply with your permit: Additional guidance](https://www.gov.uk/government/publications/landfill-sector-technical-guidance)

[GOV.UK Hydrogeological risk assessment for landfill](https://www.gov.uk/government/publications/hydrogeological-risk-assessment-for-landfills-4-yearly-review-template)

[Environment Agency - Horizontal guidance Note H1 - Annex J 3. Additional guidance for hydrogeological risk assessments for landfills and the derivation of groundwater control levels and compliance limits (version 2.1, December 2011)](http://cdn.environment-agency.gov.uk/geho0212bulu-e-e.pdf)

[Waste Acceptance at Landfills](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/296422/geho1110btew-e-e.pdf)

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## Learning Outcomes

6.1 Know what actions to take to control litter and when to use these controls.

6.2 Know the control measures for reducing the risk of fires on site.

6.3 Know the procedures for dealing with fires on site.

6.4 Know how to prevent mud and other debris from contaminating the public highway.

6.5 Know the procedures for dealing with noise, dust, odours and other nuisance arising from the site.

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## Where do I find this information?

[Environment Agency – How to comply with your environmental permit: Additional guidance for Landfill (EPR5.02) (March 2009)](http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/geho0409bput-e-e.pdf)

<https://www.gov.uk/government/publications/landfill-sector-technical-guidance>

[Environment Agency – Review and Investigation of deep-seated fires within landfill sites.](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/365144/review_and_investigation_of_deep-seated_fires_within_landfill_sites.pdf)

## Notes

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# 7. Landfill Management

## Learning Outcomes

7.1 Know how and where stability of the landfill may be a problem and what the recommendations for managing stability are.

7.2 Know how to manage vehicles on landfill sites, including articulated vehicles, in line with WISH/HSE guidance.

7.3 Know why it is important to cover waste with suitable materials.

7.4 Know what is meant by the terms ‘settlement’ and ‘compaction’ within a landfill.

7.5 Know how settlement and compaction can impact:

* The restoration plan.
* The gas/ leachate management.

7.6 Know the requirements for establishing and maintaining a network of stable, permanent survey control stations.

7.7 Know the types of waste that might damage landfill liners and restoration layers.

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## Where do I find this information?

<https://www.gov.uk/government/publications/landfill-sector-technical-guidance>

[HSE – Workplace transport safety (published 05/13)](http://www.hse.gov.uk/pubns/indg199.pdf)

[Environment Agency - LFE6: Guidance on using landfill cover materials](http://cdn.environment-agency.gov.uk/geho0409bpni-e-e.pdf)

[Environment Agency – How to comply with your Environmental Permit (Version 6, June 2013)](http://cdn.environment-agency.gov.uk/LIT_7123_79744e.pdf)

[Environment Agency – How to comply with your environmental permit: Additional guidance for Landfill (EPR5.02) (March 2009)](http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/geho0409bput-e-e.pdf)

[HSE: Guidance – Vehicle movements](http://www.hse.gov.uk/workplacetransport/checklist/section5.htm)

[HSE: Safe Transport in the waste and recycling industry](http://www.hse.gov.uk/pubns/waste09.pdf) [HSE: Guidance – Vehicle movements](http://www.hse.gov.uk/workplacetransport/checklist/section5.htm)

[HSE: Safe Transport in the waste and recycling industry](http://www.hse.gov.uk/pubns/waste09.pdf)

## Notes

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# 8. Groundwater and Surface Water Monitoring

## Learning Outcomes

8.1 Know the need for groundwater and surface water monitoring in and around a landfill.

8.2 Know the difference between monitoring for operational performance and permit compliance limits and subsequent actions.

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## Where do I find this information?

<https://www.gov.uk/government/publications/monitoring-of-landfill-leachate-groundwater-and-surface-water-lftgn-02>

[Environment Agency - Horizontal guidance Note H1 - Annex J 3. Additional guidance for hydrogeological risk assessments for landfills and the derivation of groundwater control levels and compliance limits (version 2.1, December 2011)](http://cdn.environment-agency.gov.uk/geho0212bulu-e-e.pdf)

[Environment Agency – How to comply with your environmental permit. V6](https://www.gov.uk/government/publications/how-to-comply-with-your-environmental-permit)

[Environment Agency – How to comply with your environmental permit: Additional guidance for Landfill (EPR5.02) (March 2009)](file:///%5C%5CIntranet%5Cappsbot%5CEducation%20%26%20Training%5CContinuing%20Competence%20review%20and%20update%202015_16%5C2016%20draft%20syllabus_%20in%20progress%5Clandfill%5CEnvironment%20Agency%20%E2%80%93%20How%20to%20comply%20with%20your%20environmental%20permit%3A%20Additional%20guidance%20for%20Landfill%20%28EPR5.02%29%20%28March%202009%29)

# 9. Records and Reports

## Learning Outcomes

9.1 Know what records must be kept, for how long and when they might need to be submitted to a Regulator.

9.2 Know when and how notification to the Regulator is required.

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## Where do I find this information?

[Environment Agency – How to comply with your environmental permit. V6](https://www.gov.uk/government/publications/how-to-comply-with-your-environmental-permit)

[Environment Agency – How to comply with your environmental permit: Additional guidance for Landfill (EPR5.02) (March 2009)](file:///%5C%5CIntranet%5Cappsbot%5CEducation%20%26%20Training%5CContinuing%20Competence%20review%20and%20update%202015_16%5C2016%20draft%20syllabus_%20in%20progress%5Clandfill%5Chaz%5CEnvironment%20Agency%20%E2%80%93%20How%20to%20comply%20with%20your%20environmental%20permit%3A%20Additional%20guidance%20for%20Landfill%20%28EPR5.02%29%20%28March%202009%29)

[GOV.UK Hazardous waste: returns – supplementary guidance](https://www.gov.uk/guidance/hazardous-waste-returns-supplementary-guidance)

# 10. Landfill Closure and Aftercare

## Learning Outcomes

10.1 Know the requirements and content for an up to date closure and aftercare plan (including monitoring).

10.2 Know the requirements for definite closure of all or part of a site, including restoration prior to entering the aftercare phase.

10.3 Know what the general requirements are for demonstrating standard permit surrender criteria have been met.

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## Where do I find this information?

<https://www.gov.uk/government/publications/understanding-the-landfill-directive-lfd-1>

[GOV.UK – How to surrender your Environmental Permit: landfill](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/321656/LIT_5144.pdf)

[Environment Agency – How to comply with your environmental permit: Additional guidance for Landfill (EPR5.02) (March 2009)](file:///%5C%5CIntranet%5Cappsbot%5CEducation%20%26%20Training%5CContinuing%20Competence%20review%20and%20update%202015_16%5C2016%20draft%20syllabus_%20in%20progress%5Clandfill%5CEnvironment%20Agency%20%E2%80%93%20How%20to%20comply%20with%20your%20environmental%20permit%3A%20Additional%20guidance%20for%20Landfill%20%28EPR5.02%29%20%28March%202009%29)

# 11. Health and Safety

## Learning Outcomes

11.1 Know what Dangerous Substances or areas of explosive atmospheres may exist on a landfill site.

11.2 Know what should be identified within a Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR) risk assessment for a landfill site.

11.3 Know the operator responsibilities in relation to Area Classification and marking of zones.

11.4 Know how to control ignition sources in order to reduce fire risk on a landfill site.

11.5 Know what training and information is required for employees and contractors in relation to Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR).

11.6 Know the control measures for reducing the impact of whole body vibration as a result of driving vehicles on landfill sites.

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## Where do I find this information?

[HSE: Dangerous Substances Explosive Atmospheres Regulations](http://www.hse.gov.uk/waste/landfillfires.htm)

[Environment Agency – How to comply with your environmental permit: Additional guidance for Landfill (EPR5.02) (March 2009)](http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/geho0409bput-e-e.pdf)

[HSE: Landfill fires – controlling the risk](http://www.hse.gov.uk/waste/landfillfires.htm)

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