

Aerobic Composting

Learning Outcome	Assessment Criteria	Source
1. Understand how waste is received or rejected at an aerobic composting facility	1.1 Describe the procedures for waste reception, including waste inspection and identification	Waste Treatment Eippcb (europa.eu) https://www.netregs.org.uk/environmental-topics/waste/storage-handling-and-transport-of-waste/receiving-waste-or-sewage/Biological waste treatment: appropriate measures for permitted facilities - 6. Waste pre-acceptance, acceptance and tracking - Guidance - GOV.UK (www.gov.uk) https://www.daera-ni.gov.uk/sites/default/files/publications/doe/waste-guidance-consigning-hazardous-waste-2015.pdf https://www.daera-ni.gov.uk/sites/default/files/publications/doe/duty-of-care-code-of-practice-june2016.pdf Compost Quality Protocol waste BAT guidance.book (publishing.service.gov.uk)
	1.2 List the waste reception records kept	
	1.3 Describe the procedures for rejection of waste	
	1.4 Describe the procedures for emergency waste acceptance	
	1.5 Describe the requirements for waste storage at an aerobic composting facility	
2. Understand how different feedstocks can impact the aerobic composting process	2.1 Identify the characteristics that should be tested as part of a detailed feedstock characterisation as specified as Best Available Techniques (BAT)	Biological waste treatment: appropriate measures for permitted facilities - 6. Waste pre-acceptance, acceptance and tracking - Guidance - GOV.UK (www.gov.uk) Waste Treatment Eippcb (europa.eu) Compost Quality Protocol
	2.2 Explain why non-source segregated feedstocks potentially pose a greater environmental risk	
	2.3 Describe the consequences of accepting contaminated feedstocks for the aerobic composting process	



3. Understand the requirements for aerobic composting facilities that accept animal by-products	3.1 Explain why compliance with the Animal By-Product Regulations is critical for aerobic composting facilities	https://www.legislation.gov.uk/nisr/2003/495/made https://www.daera-ni.gov.uk/articles/animal-products-general-guidance Animal by-product categories, site approval, hygiene and disposal - GOV.UK (www.gov.uk) Using animal by-products at compost and biogas sites - GOV.UK (www.gov.uk) Revised PAS100 published (organics-recycling.org.uk) https://www.netregs.org.uk/environmental-topics/waste/waste-treatment-processes/composting-catering-waste/Laboratory testing requirements for animal by-products (ABPs)
	3.2 Identify the records that must be kept when food waste/catering waste is delivered to the site according to Animal By-Products Regulations	
	3.3 State what a Hazard Analysis Critical Control Point Plan is in relation to gaining Animal By-Products Regulations approval	
	3.4 Describe what is required for sampling and testing of pathogens when dealing with Animal By-Products	
4. Understand how to manage odour from aerobic composting facilities	4.1 Describe when odours may be produced during aerobic composting	Waste Treatment Eippcb (europa.eu) H4 Odour Management - how to comply with your environmental permit Organics Recycling Group – An industry guide for the prevention and control of odours at biowaste processing facilities Biological waste treatment: appropriate measures for permitted facilities - 11. Emissions control - Guidance - GOV.UK (www.gov.uk)
	4.2 Describe the problems associated with odour and how to control them (including biofilters) during aerobic composting	
	4.3 Describe the methods used to monitor odour at an aerobic composting facility and their limitations	
	4.4 Describe the information required in an odour management plan	
	4.5 Describe: <ul style="list-style-type: none"> - How to ensure a biofilter is appropriately designed for a facility - The optimal operating conditions for biofilters 	



	<ul style="list-style-type: none"> - How optimal operating conditions are maintained for biofilters 	
5. Understand how to manage other emissions from aerobic composting facilities	5.1 Describe the requirements for controlling: <ul style="list-style-type: none"> - Pests and vermin - Litter - Noise - Dust - Leachate 	Waste Treatment Eippcb (europa.eu) Biological waste treatment: appropriate measures for permitted facilities - 11. Emissions control - Guidance - GOV.UK (www.gov.uk) https://www.netregs.org.uk/environmental-topics/nuisances/nuisance-from-dust-insects-noise-odour-and-pathogens/dust-nuisance/ https://www.gov.uk/guidance/biological-waste-treatment-appropriate-measures-for-permitted-facilities/4-site-location-design-and-capacity https://www.netregs.org.uk/media/1643/gpp-22-dealing-with-spills.pdf
	5.2 Describe the requirements for protecting surface water, sewer and groundwater from substances not controlled by emission limits	
6. Understand how to manage bioaerosols at an aerobic composting facility	6.1 Define the term 'bioaerosol'	https://www.netregs.org.uk/environmental-topics/nuisances/nuisance-from-dust-insects-noise-odour-and-pathogens/pathogens-at-waste-sites/ M9 environmental monitoring of bioaerosols at regulated facilities - GOV.UK (www.gov.uk) Biological waste treatment: appropriate measures for permitted facilities - 11. Emissions control - Guidance - GOV.UK (www.gov.uk) Waste Treatment Eippcb (europa.eu)
	6.2 State the causes of bioaerosols	
	6.3 List the factors affecting a bioaerosol risk assessment for sensitive receptors	
	6.4 Describe how and when to monitor bioaerosol risk assessment for sensitive receptors	
	6.5 Describe the methods used for bioaerosol abatement (including reducing point source releases)	
	6.6 Describe: <ul style="list-style-type: none"> - How to manage the risk of exposure to bioaerosols - The consequences of failing to manage this risk 	
	6.7 List the information that should be included in a bioaerosols monitoring report	



<p>7. Understand the standards outputs of the aerobic composting process must meet</p>	<p>7.1 State what is required to ensure that a fully recovered product may be used without being classed as waste</p> <p>7.2 Describe the characteristics of:</p> <ul style="list-style-type: none"> - A sanitisation regime - A stabilisation regime <p>7.3 Describe the following PAS 100 requirements for:</p> <ul style="list-style-type: none"> - Hazard Analysis Critical Control Point Plan - Records - Maximum contaminant concentrations permitted - Source separation of feedstocks <p>7.4 Describe the storage requirements on land for both compost and compost-like outputs</p>	<p>Compost Quality Protocol Waste Treatment Eippcb (europa.eu) Composting process uses for compost (olus.co.uk) PAS100 (ciwm.co.uk) BSI PAS 100:2018 is the current version</p>
<p>8. Understand the key principles of the aerobic composting process</p>	<p>8.1 Describe each phase of the aerobic composting process and how to manage it</p> <p>8.2 Describe the monitoring and control requirements for the aerobic composting process</p> <p>8.3 Describe the impact on the process and how to manage:</p> <ul style="list-style-type: none"> - pH - Moisture - Temperature - Nutrient ratios for feedstocks - Optimum size of input material - Anaerobic conditions 	<p>Biological waste treatment: appropriate measures for permitted facilities - 8. Waste treatment - Guidance - GOV.UK (www.gov.uk) Waste Treatment Eippcb (europa.eu)</p>



	<p>8.4 Describe how to manage the aerobic composting process in accordance with regulatory and process contingency arrangements in the event of:</p> <ul style="list-style-type: none"> - Plant breakdown - Equipment breakdown 	
	<p>8.5 Describe best practice for using collected leachate within the aerobic composting process</p>	
<p>9. Understand the main causes of accidents at aerobic composting facilities and how to prevent them</p>	<p>9.1 Identify the causes of accidents on an aerobic composting facility</p>	<p>Waste Treatment Eippcb (europa.eu)</p>
	<p>9.2 Identify the methods used to prevent accidents on an aerobic composting facility</p>	
<p>10. Understand how to deal with complaints</p>	<p>10.1 Describe the actions that should be taken if a member of staff or the public identify a potential area of non-compliance or make a complaint</p>	

