

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	https://www.gov.uk/guidance/biological-waste-treatment-appropriate-measures-for-permitted-facilities How to comply with your environmental permit (naturalresources.wales) Waste duty of care code of practice.pdf (publishing.service.gov.uk) 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) 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	ABPR01: Application form for approval to use animal by-products or catering waste at composting or biogas plants GOV.UK: using animal by-products at compost and biogas sites Guidance for the animal by-product industry - GOV.UK (www.gov.uk) Contact APHA - GOV.UK (www.gov.uk) Animal by-product categories, site approval, hygiene and disposal - GOV.UK (www.gov.uk) international catering waste Revised PAS100 published (organics-recycling.org.uk) learn about different categories of ABP 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	Biological waste treatment: appropriate measures for permitted facilities - Guidance - GOV.UK (www.gov.uk) odour management plan H4 Odour Management - how to comply with your environmental permit Wales How to comply with your environmental permit Additional guidance for: H4 Odour Management How to comply (publishing.service.gov.uk) Organics Recycling Group – An industry guide for the prevention and control of odours at biowaste processing facilities
	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	



	<p>4.5 Describe:</p> <ul style="list-style-type: none"> - How to ensure a biofilter is appropriately designed for a facility - The optimal operating conditions for biofilters - How optimal operating conditions are maintained for biofilters 	
<p>5. Understand how to manage other emissions from aerobic composting facilities</p>	<p>5.1 Describe the requirements for controlling:</p> <ul style="list-style-type: none"> - Pests and vermin - Litter - Noise - Dust - Leachate 	<p>https://naturalresources.wales/media/2110/how-to-comply-with-your-environmental-permit.pdf Biological waste treatment: appropriate measures for permitted facilities - 11. Emissions control - Guidance - GOV.UK (www.gov.uk) pest and vermin management plan dust, bioaerosols and particulates, mud and litter https://www.gov.uk/guidance/biological-waste-treatment-appropriate-measures-for-permitted-facilities/11-emissions-control dust management plan HSE Control and monitor emissions for your environmental permit - GOV.UK (www.gov.uk) noise and vibration management plan control potential fugitive emissions</p>
	<p>5.2 Describe the requirements for protecting surface water, sewer and groundwater from substances not controlled by emission limits</p>	
<p>6. Understand how to manage bioaerosols at an aerobic composting facility</p>	<p>6.1 Define the term 'bioaerosol'</p>	<p>M9 - Environmental monitoring of bioaerosols at regulated facilities Bioaerosol monitoring at regulated facilities - use of M9: RPS 209 - GOV.UK (www.gov.uk) https://naturalresources.wales/media/2129/technical-guidance-note-m17-monitoring-monitoring-particulate-matter-in-ambient-air-around-waste-facilities.pdf</p>
	<p>6.2 State the causes of bioaerosols</p>	
	<p>6.3 List the factors affecting a bioaerosol risk assessment for sensitive receptors</p>	
	<p>6.4 Describe how and when to monitor bioaerosol risk assessment for sensitive receptors</p>	



	<p>6.5 Describe the methods used for bioaerosol abatement (including reducing point source releases)</p>	
	<p>6.6 Describe:</p> <ul style="list-style-type: none"> - How to manage the risk of exposure to bioaerosols - The consequences of failing to manage this risk 	
	<p>6.7 List the information that should be included in a bioaerosols monitoring report</p>	
<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 Pas100 - Standards - CCS (qualitycompost.org.uk) Biological wPAS 100: 2011 – Specification for Composted Materials aste treatment: appropriate measures for permitted facilities - 8. Waste treatment - Guidance - GOV.UK (www.gov.uk) Composting process uses for compost (olus.co.uk)</p>



8. Understand the key principles of the aerobic composting process	8.1 Describe each phase of the aerobic composting process and how to manage it	Biological waste treatment: appropriate measures for permitted facilities - 8. Waste treatment - Guidance - GOV.UK (www.gov.uk) Biological waste treatment: appropriate measures for permitted facilities - 5. General management appropriate measures - Guidance - GOV.UK (www.gov.uk)
	8.2 Describe the monitoring and control requirements for the aerobic composting process	
	8.3 Describe the impact on the process and how to manage: <ul style="list-style-type: none"> - pH - Moisture - Temperature - Nutrient ratios for feedstocks - Optimum size of input material - Anaerobic conditions 	
	8.4 Describe how to manage the aerobic composting process in accordance with regulatory and process contingency arrangements in the event of: <ul style="list-style-type: none"> - Plant breakdown - Equipment breakdown 	
	8.5 Describe best practice for using collected leachate within the aerobic composting process	
9. Understand the main causes of accidents at aerobic composting facilities and how to prevent them	9.1 Identify the causes of accidents on an aerobic composting facility	Biological waste treatment: appropriate measures for permitted facilities - 5. General management appropriate measures - Guidance - GOV.UK (www.gov.uk) HSE – Confined Spaces(published 01/13) https://www.gov.uk/guidance/develop-a-management-system-environmental-permits#accident-prevention-and-management-plan
	9.2 Identify the methods used to prevent accidents on an aerobic composting facility	



		https://naturalresources.wales/media/2110/how-to-comply-with-your-environmental-permit.pdf Waste Treatment Eippcb (europa.eu)
10. Understand how to deal with complaints	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	

