

Contaminated Land Remediation

Learning Outcome	Assessment Criteria	Source
1. Understand the purpose of a site remediation strategy	1.1 Explain the role of: <ul style="list-style-type: none"> - The options appraisal - The remediation strategy - The implementation plan - The verification plan - The monitoring and maintenance plan 	Model Procedures for the Management of Land Contamination Land contamination: risk management https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm/lcrm-stage-2-options-appraisal https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm/lcrm-stage-3-remediation-and-verification
	1.2 Describe when flooding risk should be considered within contaminate land remediation risk appraisal, strategy, and implementation	
	1.3 State the hierarchy of assessment options to be followed	
2. Understand in-situ and ex-situ remediation	2.1 State the legal definition of waste in relation to contaminated land remediation	https://www.legislation.gov.uk/ukpga/1990/43/section/75/2022-03-07 https://www.gov.uk/contaminated-land https://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/advice-for-developers/land-contamination/?lang=en https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm/lcrm-stage-2-options-appraisal Model Procedures for the Management of Land Contamination https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm/lcrm-stage-3-remediation-and-verification LCRM: Stage 2 options appraisal Contaminated land statutory guidance 2012
	2.2 Define: <ul style="list-style-type: none"> - In-situ remediation - Ex-situ remediation 	
	2.3 Explain why it is important to select a range of remediation techniques as part of the options appraisal	



	2.4 Describe the environmental impacts associated with in-situ and ex-situ remediation techniques.	quality protocol https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit#emissions-management-plan https://naturalresources.wales/media/2110/how-to-comply-with-your-environmental-permit.pdf
	2.5 Describe the control measures to reduce or eliminate risks to the environment.	
3. Understand the process for deployment of mobile plant	3.1 Describe what an operator working under a mobile plant permit is required to do prior to moving to a new site	Environment Agency - SR2008No27 - Mobile plant for the treatment of soils and contaminated material, substances or products Download NRW Standard Rules Permits here England - SR2008No27 - Mobile plant for the treatment of soils and contaminated material, substances or products (version 7.1) Wales - SR2008 No27 v7.0 mobile plant for the treatment of soils and contaminated material, substances or products England - MPP2 Form and guidance for land and groundwater remediation Wales - MPP2 Form and guidance for land and groundwater remediation https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm/lcrm-stage-1-risk-assessment https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1028411/Form_MPP2_Deployment_form_for_land_and_groundwater_remediation.pdf https://cdn.cyfoethnaturiol.cymru/media/693234/guidance-on-land-and-or-groundwater-remediation-or-treatment-using-a-mobile-plant-remediation-mpp2.pdf https://www.gov.uk/government/publications/deployment-form-for-land-and-groundwater-remediation/land-and-groundwater-remediation-deployment-form-guidance#sections-b8-and-b9-pollution-control-and-emissions-monitoring-plan
	3.2 List the information a conceptual site model (CSM) should contain when submitting a deployment form	
	3.3 Explain why acceptance procedures need to be specified on a deployment form	
	3.4 Describe how to identify authorised treatment technologies when completing a deployment form	
	3.5 Describe the monitoring requirements that need to be included in deployment form MPP2	
	3.6 State how long an activity can take place for under a deployment form	



4. Understand the requirements for standard rules permits in relation to contaminated land remediation activities	4.1 Describe the storage and bunding requirements for: <ul style="list-style-type: none"> - Aqueous liquids - Non-aqueous phase liquid (NAPL) - Fuels and oils 	Control and monitor emissions for your environmental permit Oil storage regulations for businesses https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit#leaks-from-containers https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/484292/LIT_6951.pdf
	4.2 State the remediation activities that are covered by SR2008 No27	https://cdn.cyfoethnaturiol.cymru/media/692211/sr2008-no27-mobile-plant-for-the-treatment-of-soils-and-contaminated-material-substances-or-products-v70.pdf
	4.3 Explain what actions to take if you are planning a remediation technique which is not permitted under a Standard Rules Permit	Environment Agency - SR2008No27 - Mobile plant for the treatment of soils and contaminated material, substances or products (version 7.1) Wales - SR2008 No27 v7.0 mobile plant for the treatment of soils and contaminated material, substances or products
	4.4 Identify the waste types that can be stored or treated on a Standard Rules Permit for a mobile plant	Waste: environmental permits Wales Do you need to apply for a permit or register an exemption? https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/484292/LIT_6951.pdf
	4.5 Describe the limitations for the mobile plant permit in terms of: <ul style="list-style-type: none"> - Water abstraction - The limit above which abstraction requires a licence or permit 	https://cdn.cyfoethnaturiol.cymru/media/693234/guidance-on-land-and-or-groundwater-remediation-or-treatment-using-a-mobile-plant-remediation-mpp2.pdf Environment Agency – Remediation Position Statements (issued 17/11/2010) Water management: abstract or impound water https://naturalresources.wales/permits-and-permissions/water-abstraction-and-impoundment/find-out-if-you-need-a-water-abstraction-or-impoundment-licence/?lang=en



5. Understand the requirements for waste disposal in relation to contaminated land remediation activities	5.1 Describe the limitations placed on wastes sent off-site for disposal in a landfill	Landfill operators: environmental permits - Guidance - GOV.UK (www.gov.uk) Waste acceptance at landfills 2010 https://www.gov.uk/guidance/dispose-of-waste-to-landfill basic characterisation Waste duty of care code of practice England Dispose of business or commercial waste Wales Register as a waste carrier, broker or dealer https://www.gov.uk/dispose-business-commercial-waste get help to do this sort and store waste safely and securely waste transfer note registered to dispose of waste dealing with hazardous waste https://www.gov.uk/government/publications/using-mcerts-for-the-chemical-testing-of-soil/using-mcerts-for-the-chemical-testing-of-soil Environment Agency - Contaminated Land Testing Land contamination: technical guidance Brief guide for procurers of analytical services Waste acceptance procedures for deposit for recovery - GOV.UK (www.gov.uk) https://www.gov.uk/guidance/landfill-operators-environmental-permits/accept-the-right-waste EU Council Decision annex Environment Agency – Waste Acceptance at Landfills (Version 1, Nov 2010) Guidance on the classification and assessment of waste Technical Guidance WM3 Dispose of waste containing persistent organic pollutants (POPs) CL:AIRE Asbestos in Soil and Construction & Demolition Materials
	5.2 List the documentation required for off-site waste treatment and disposal	
	5.3 State the type of accreditation a soil testing laboratory must have	
	5.4 List the waste acceptance criteria for depositing waste soils at an inert landfill	
	5.5 List the Persistent Organic Pollutants (POPs) that are considered when determining where a waste is hazardous	
	5.6 Describe how to manage asbestos: <ul style="list-style-type: none"> - Identification - Options for reuse - Offsite disposal 	



6. Understand how to manage emissions from contaminated land remediation activities	6.1 Describe the requirements for controlling: <ul style="list-style-type: none"> - Odour - Noise - Dust 	https://www.gov.uk/government/publications/tenoise-and-vibration-management-environmental-permits/noise-and-vibration-management-environmental-permits#noise-management-plans-nmp https://naturalresources.wales/permits-and-permissions/environmental-permits/horizontal-guidance/?lang=en
	6.2 Define Japanese knotweed	https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit#noise-and-vibration-management-plan-noise-impact-assessment
	6.3 Describe the actions to take if: <ul style="list-style-type: none"> - Japanese knotweed is located - Groundwater is encountered during the excavation of contaminated soils - Unexpected water flow is experienced during excavations - A fuel tank leaks in the plant compound 	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/484292/LIT_6951.pdf https://cdn.cyfoethnaturiol.cymru/media/695297/121018-waste-standard-rule-sets-pdf-14.zip?mode=pad&rnd=133040170190000000 Control and monitor emissions for your environmental permit H4 Odour Management How to comply with your environmental permit England - MPP2 Form and guidance for land and groundwater remediation Wales - MPP2 Form and guidance for land and groundwater remediation Guidance - Prevent harmful weeds and invasive non-native plants spreading Guidance - Prevent Japanese knotweed from spreading
	6.4 Describe the potential adverse effects of atmospheric VOC emissions	https://www.gov.uk/government/publications/treatment-and-disposal-of-invasive-non-native-plants-rps-178/treatment-and-disposal-of-invasive-non-native-plants-rps-178
	6.5 State the minimum requirements for documenting atmospheric VOC emissions	https://naturalresources.wales/permits-and-permissions/water-discharges-and-septic-tanks/discharges-to-surface-water-and-groundwater/environmental-permitting-for-discharges-to-surface-water-and-groundwater/?lang=en https://www.gov.uk/government/publications/temporary-dewatering-from-excavations-to-surface-water/temporary-dewatering-from-excavations-to-surface-water https://naturalresources.wales/permits-and-permissions/water-discharges-and-septic-tanks/discharges-to-surface-water-and-groundwater/?lang=en Environment Agency - SR2008No27 - Mobile plant for the treatment of soils and contaminated material, substances or products (version 7.1)



		<p>Wales - SR2008 No27 v7.0 mobile plant for the treatment of soils and contaminated material, substances or products</p> <p>M16: Monitoring of volatile organic compounds in stack gas emissions</p> <p>https://www.gov.uk/government/statistics/emissions-of-air-pollutants/emissions-of-air-pollutants-in-the-uk-non-methane-volatile-organic-compounds-nmvocs</p>
7. Understand how the U1 waste exemption applies to contaminated land remediation activities	7.1 Describe the following under the U1 waste exemption:	<p>Waste exemption: U1 use of waste in construction</p> <p>https://www.legislation.gov.uk/ukxi/2016/1154/schedule/3</p> <p>https://www.gov.uk/guidance/u1-waste-exemption-use-of-waste-in-construction#types-of-activity-you-can-carry-out</p> <p>https://www.claire.co.uk/projects-and-initiatives/dow-cop/28-framework-and-guidance/112-guidance-bulletin-3-dowcop</p> <p>https://www.claire.co.uk/projects-and-initiatives/dow-cop</p> <p>https://naturalresources.wales/permits-and-permissions/waste-permitting/submit-a-claire-code-of-practice-declaration/?lang=en</p> <p>https://www.claire.co.uk/projects-and-initiatives/dow-cop/28-framework-and-guidance/112-guidance-bulletin-3-dowcop</p> <p>Guidance - Turn your waste into a new non-waste product or material</p> <p>CL:AIRE The Definition of Waste: Development Industry Code of Practice</p>
	- Specific use of material	
	- Quantity limits	
	7.2 Describe the alternatives for use of wastes from contaminated land remediation activities when exemptions are not available	
	7.3 Describe when waste material from a contaminated land remediation site would NOT be considered waste	
8. Understand the main causes of accidents at a contaminated land remediation site and how to prevent them	8.1 Identify the causes of accidents on a contaminated land remediation site	<p>https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit#risks-from-your-site</p> <p>https://www.hse.gov.uk/waste/transport.htm</p> <p>https://www.hse.gov.uk/statistics/industry/waste-recycling.pdf</p> <p>https://www.hse.gov.uk/waste/noise-material-recovery-facilities.htm</p> <p>https://www.hse.gov.uk/waste/machinery.htm</p>
	8.2 Identify the methods used to prevent accidents on a contaminated land remediation site	



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9. Understand how to deal with complaints	9.1 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 (e.g. regarding noise)	https://www.gov.uk/guidance/develop-a-management-system-environmental-permits#complaints-procedure https://naturalresources.wales/media/2110/how-to-comply-with-your-environmental-permit.pdf
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