**Wastewater Treatment Technician: Work Log Mapping**

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| **Apprentice Name/Employer:** |  |
| **Coverage checked by (provider)** |  |
| **Please ensure this mapping document signposts valid evidence in the Work Log that has been correctly cross-referenced and submit to EUIAS along with the Work Log.** |

| Section | Grade | Portfolio Evidence Requirement from **Work Log****Circle evidence type(s) and enter location in next colum** | Evidence Location (eg. job number/page number) |
| --- | --- | --- | --- |
| 1. Knowledge and application of relevant health and safety, environmental and industry standards and regulations, policies and procedures**K1, K3, S7, S8, S9, WWTT10** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as1. Training / certificates / attendance at training courses relating to H&S, environmental, regulatory and HR requirements (e.g. Toolbox talks, induction)
2. Knowledge of where to access H&S, environmental and industry information
3. Reporting any faults, loss or issues with equipment
4. Suggesting and implementing appropriate control measures
5. Identifying changing situations in the workplace and taking the appropriate action

Other) |  |
| **Distinction** | 1. Voluntarily engaging with employer to make contributions to health and safety improvements and initiatives
2. Understanding of the wider ranging consequences of not following standards, regulations, policies and procedures
3. Continuously updating knowledge regarding health, safety, environmental and industry standards and procedures
4. Understanding of wider ranging consequences of not working safely and carrying out risk assessments
5. Explaining the need to maintain and store PPE and other safety equipment
6. Explaining the wider ranging consequences of not working appropriately with (including storage and disposal of) chemicals
7. Monitoring safety equipment use and compliance in others
8. Voluntarily taking an active role in completing safety compliance checks for others
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| 2. Knowledge and application of water industry operations and maintenance practices, processes and procedures in wastewater treatment**K2, K4, S10** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as1. Knowledge of company operations and maintenance policies and procedures and where to find them e.g. sampling procedures, flow monitoring
2. Training / certificates / attendance at training courses relating to operations and maintenance practices, processes and procedures

Other) |  |
| 3.Use theory and principles to undertake fault finding, testing and analysis on specific equipment, instruments and IT systems and interpret the results to implement effective solutions**K5, K6, S7, S12, S13** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as1. Training / certificates / attendance at courses relating to specific equipment, instruments and IT systems
2. Testing and maintaining H&S equipment
3. Knowledge and use of the operation of flow monitoring equipment
4. Identifying faults and alarms
5. Understanding alarms, priorities, consequences and responses
6. Consulting and working with others to investigate, identify and resolve the root cause of problems
7. Verifying IT systems are working correctly

Other) |  |
| **Distinction** | 1. Independently conducting fault or route cause analysis to successful conclusion without guidance
2. Presenting and sharing findings in a logical and consistent manner
3. Technical understanding of process equipment options and practical assessment and application of their suitability for use
4. Suggesting improvements in alarm management
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| 4. Drive vehicles equipped with tools and materials to other sites as required**S15** | **Pass** | Minimum requirement to evidence at least 1 example, such as1. Full driving licence
2. Additional driving category training as required
3. Complying with company driving policies and procedures on a regular basis e.g. vehicle checks completed
4. Safe loading of vehicles
5. Keeping company vehicles maintained and cleaned to a high standard

Other) |  |
| 5. Complete reports and ensure records are maintained for audit and reporting purposes**S17** | **Pass** | Completion of 4 different types of company records, specific to pathway, as required |  |
| 6. Work with focus and clear purpose in all weather conditions, covering 24/7 operations, sometimes working alone and safely adapt working methods to reflect changes in working environments**S14, S18, SB6** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as1. Completing planned work activities accurately and on time in all weather conditions
2. Completion of tasks when on their own
3. Completion of tasks out of hours
4. Compliance with company working time directives

Other) |  |
| **Distinction** | 1. Consistent dynamic risk assessments on a variety of jobs
2. Willingly assisting in emergency situations outside of normal working hours
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| 7. Use wastewater treatment theories and principles to ensure processes are maintained at optimum performance **WWTT1** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as1. Knowledge of wastewater theories and principles for different processes
2. Work with others to identify the root cause of problems and resolve issues

Other) |  |
| **Dist.** | 1. Detailed knowledge of wastewater treatment theories and principles
2. Demonstrating good understanding by sharing knowledge with others e.g. carries out site tours, coaching etc.
3. Suggesting and implementing improvements to processes which contribute to opex or process improvements / efficiencies
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| 8 Operate and maintain process control equipment and instrumentation**WWTT2** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as1. Identifying trends from data
2. Maintaining and altering set points and interpreting alarms
3. Identifying problems with monitoring equipment

Other) |  |
| **Distinction** | 1. Suggesting and implementing improvements to process control systems which contribute to opex or process efficiencies
2. Long term trend analysis to consider future effluent quality issues e.g. Phosphate, Ammonia, DO
 |  |
| 9. Operate and maintain Sewage Treatment and pumping station (Sewerage) systems and associated equipment, including control systems**WWTT3, WWTT4** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as1. Monitoring, maintaining and controlling systems to maintain optimum performance of sewage treatment (sewerage) operations and pumping stations including analysing data to identify trends
2. Taking appropriate action to maintain sewage treatment and pumping station operations and systems

Other) |  |
| **Distinction** | 1. Independent optimisation of processes showing opex savings or process efficiencies
2. Demonstration of the ability to contingency plan and handle emergency situations e.g. arranging resources in a safe & efficient manner
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| 10. Control the operations on your sites:a) using knowledge of design specificationsb) to ensure Environmental Quality Standards for effluent discharge and air quality are met c) to ensure compliance with H&S policies including work in confined spaces**WWTT5, WWTT6,** **WWTT8, WWTT9** | **Pass** | Minimum requirement to evidence at least 3 ‘Pass’ examples, such as1. Knowledge of odour management and how operations are controlled on site to minimise odours
2. Identifying trends and potential faults and treatment problems based on monitoring
3. Implementing process changes and monitoring these for effectiveness
4. Work with others to identify the root cause of problems and resolve issues
5. Training in high risk environments including as a minimum confined spaces but may also include where required, permit to work, use of safety equipment, working at height, managing contractors

Other) |  |
| **Distinction** | 1. Linking design specifications to practical tasks, e.g. upward flow velocities, filter capacity, storm tank capacity
2. Independent optimisation of processes showing opex savings or process efficiencies
3. Independently solving problems via root cause analysis and resolving issues
4. Checking and controlling the compliance of others on site e.g. contactors, colleagues and visitors to sites
5. Willingness to upskill and take additional responsibility for the safety of others
6. Suggestion of long term solutions to prevent the need for working in high risk environments
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| 11. Monitor and maintain wastewater treatment processes including screening, grit removal, settlement, fixed film biological treatment and activated sludge treatment**WWTT7** | **Pass** | Minimum requirement to evidence at least 3 ‘Pass’ examples, such as1. Knowledge of target operating regimes for different processes
2. Identifying trends and potential faults and treatment problems based on monitoring
3. Implementing process changes and monitoring these for effectiveness
4. Work with others to identify the root cause of problems and resolve issues
5. Demonstrating a clear understanding of the effects of their actions on other treatment processes upstream and downstream

Other) |  |
| **Distinction** | 1. Independent optimisation of processes showing opex savings or process efficiencies
2. Independently solving problems via root cause analysis and resolving issues
3. Long term trend analysis to consider future effluent quality issues e.g. Phosphate, Ammonia, DO
4. Instigating collaboration with other departments regarding process changes
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| 12. Implements emergency procedures and carries out process stream and full treatment works shutdown as required by routine planned maintenance, other situations and emergencies**WWTT11, WWTT12** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as1. Compliance with pollution incident procedures
2. Isolation of process units and streams (and full treatment works e.g. RBCs etc. if viable) following company procedures
3. Isolation of process streams due to: Emergencies; Maintenance; Refurbishment / long term shutdown
4. Checking, observing, recording and reporting of isolations and shut downs

Other) |  |
| **Distinction** | 1. Involvement in decommissioning and / or recommissioning plant
2. Active involvement with contractors regarding shut downs / upgrades
3. Advising others of emergency procedures for the treatment works
4. Taking on additional responsibility regarding emergency procedures and situations e.g. fire marshal, first aider etc.
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| 13. Organise and control maintenance operations on treatment works equipment**WWTT13** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as1. Communicates actions to colleagues as required
2. Isolation and preparation of equipment for maintenance activities
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| **Dist.** | c) Identifying and communicating additional and relevant information pertaining to faults identified e.g. part numbers, accessibility issues d) Implementing a contingency to ensure water quality compliancee) Identifying alternative solutions or improvements |  |

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| --- | --- | --- | --- |
| **14.** Ownership,responsibility and customer focus. Accepts ownership and responsibility for own work to accomplish, an activity safely and on time, whilst * maintaining self-discipline
* working well with others
* delivering a polite, courteous, professional service

**B1, B2, B3** | **Pass** | a) Accomplishes an activity safely, correctly and on timeb) Interacts well with customers, colleagues and members of the publicc) Maintains self-discipline, motivation and always works in a professional manner |  |
| **Dist.** | d) Consistently takes responsibility for own performance and strives to go beyond expectations |  |

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| **15.** Health and safety/risk awareness. Takes responsibility for own and others health and safety, following procedures and policy to think things through whilst being aware of potential consequences, hazards, distractions and changing circumstances for an activity.**B4** | **Pass** | a) Demonstrates strict compliance with operational procedures and processesb) Shows an awareness of the impact of changing circumstances on an activity c) Able to identify and deal appropriately with distractions to enable tasks to be achieved |  |
| **Dist.** | d) Consistently monitors and checks information to see if changes to plans are required for an activity |  |

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| **16.** Task management. Possesses and enhances appropriate knowledge, skills and experience to perform the duties of the job. Accomplishes goals by* accepting and following instructions given by supervisor
* responding to training
* allocating and supervising technical and other required tasks

**B5, B8** | **Pass** | a) Enhances competency through seeking guidance to help accomplish a task. e.g. Guidance may be provided via operational handbook, digital resources or asking someone.b) Allocates and supervises technical and other required tasks to efficiently accomplish goals |  |

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| --- | --- | --- | --- |
| **17.** Results driven. Identifies, organises and effectively uses resources to complete tasks in a timely fashion, considering cost, quality, safety, security and environmental impact.**B7** | Pass | a) Identifies, organises and uses resources effectively to complete tasks,b) Considers cost, quality, safety, securityc) Considers environmental impact |  |

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| --- | --- | --- | --- |
| **18.** Sustainability and ethical behaviour. Thinks and behaves ethically and undertakes work in a way that contributes to a positive corporate social responsibility.**B9, B10, B11** | **Pass** | a) Attitude is respectful and positive, concerning the needs or concerns of others.b) Awareness of the needs and concerns of others especially where related to diversity and equalityc) Maintains a positive approach to ethical requirements and undertakes work in a way that contributes to sustainable development. |  |