**Water 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, WTT9** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as   1. 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 |  |
| 2. Knowledge and application of water industry operations and maintenance practices, processes and procedures in water treatment  **K2, K4, S10** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as   1. 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 x ‘Pass’ examples, such as   1. 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 |  |
| 4. Drive vehicles equipped with tools and materials to other sites as required  **S15** | **Pass** | Minimum requirement to evidence at least 1 example, such as   1. 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, WTT5** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as   1. 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 |  |
| 7. Control and monitor the operations on your sites:  a) using knowledge of design specifications  b) to ensure Drinking Water Quality Standards are met  c) to ensure compliance with H&S policies including work in confined spaces, risk assessments and checking method statements  **WTT1, WTT6, WTT8** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as   1. Identifying trends and potential faults and treatment problems based on monitoring 2. Implementing process changes and monitoring these for effectiveness 3. Training in high risk environments including if applicable, confined spaces, permit to work, use of safety equipment, working at height, managing contractors 4. Work with others to identify the root cause of problems and resolve issues   Other) |  |
| **Distinction** | 1. Linking design specifications to practical tasks and suggesting improvements 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 |  |
| 8. Monitor and maintain water treatment processes e.g. chemical dosing, filtration and disinfection  **WTT2** | **Pass** | Minimum requirement to evidence at least 3 ‘Pass’ examples, such as   1. Knowledge of target operating regimes for different processes 2. Understanding of site flow sheets and the interdependencies of the processes 3. Identifying trends and faults and solving potential treatment problems based on monitoring 4. Implementing and monitoring solutions for effectiveness 5. Monitoring and maintaining treatment processes to company standards 6. Demonstrating a clear understanding of the effects of their actions on other treatment processes upstream and downstream 7. Work with others to identify the root cause of problems and resolve issues 8. Making adjustments where necessary   Other) |  |
| **Distinction** | 1. Independent optimisation of processes showing opex or process efficiencies 2. Independently solving problems via root cause analysis and resolving issues 3. Long term trend analysis to consider future water quality issues e.g. plate counts on reservoir, raw water quality deterioration 4. Instigating collaboration with other departments regarding process changes |  |
| 9. Operate, control and maintain process control equipment and instrumentation  **WTT3** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as   1. 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 improvements / efficiencies 2. Long term trend analysis to consider future water quality issues e.g. plate counts on reservoir, raw water quality deterioration |  |
| 10. Use water treatment theories and principles to ensure processes are maintained at optimum performance  **WTT4, WTT7** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as   1. Knowledge of water treatment theories and principles for different processes 2. Identifying trends and potential faults and treatment problems based on monitoring 3. Application of knowledge to optimise treatment performance 4. Work with others to identify the root cause of problems and resolve issues   Other) |  |
| **Dist** | 1. Detailed knowledge of water treatment theories and principles e.g. hypochlorous acid production, chemistry of flocculation, influence of contaminants in raw water etc. 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 |  |
| 11. Implements emergency procedures and carries out process stream and full treatment works shutdown as required by routine planned maintenance, other situations and emergencies  **WTT10, WTT11** | **Pass** | Minimum requirement to evidence at least 3 ‘Pass’ examples, such as   1. Isolation of process units and streams (and full treatment works if viable) following company procedures 2. Isolation of process streams due to:    1. Emergencies    2. Maintenance    3. Refurbishment / long term shutdown 3. Checking, observing, recording and reporting of isolations and shut downs 4. Compliance with company reporting procedures relating to:    1. Water Quality    2. Environmental compliance    3. Health and Safety   Other) |  |
| **Dist.** | 1. Involvement in decommissioning and / or recommissioning plant / process stream 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. |  |
| 12. Organise and control maintenance operations on treatment works equipment  **WTT12** | **Pass** | Minimum requirement to evidence at least 2 ‘Pass’ examples, such as   1. Identifying maintenance tasks 2. Raise and prioritise work requests correctly based on known information 3. Isolation and preparation of equipment for maintenance activities   Other) |  |
| **Dist.** | 1. Identifying and communicating additional and relevant information pertaining to faults identified e.g. part numbers, accessibility issues 2. Implementing a contingency to ensure water quality compliance 3. Identifying alternative solutions or improvements |  |

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| **13.** 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 time  b) Interacts well with customers, colleagues and members of the public  c) 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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| **14.** 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 processes  b) 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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| **15.** 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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| **16.** 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, security  c) Considers environmental impact |  |

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| **17.** 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 equality  c) Maintains a positive approach to ethical requirements and undertakes work in a way that contributes to sustainable development. |  |