

**Job Title:**  **Process Chemist/Engineer**

**Department:**  **Technical & Environment Operations**

**Reports to: Technical Lead - Chemistry**

**Direct Reports: None**

**Location: Activity Based Onsite**

**Contract Type: Permanent**

**Grade:**  **CA5**

**Main purpose of the job**

* To provide expert advice on process engineering and process chemistry delivering significant improvements and efficiencies in the operation of mine water remediation schemes dealing with pollution from abandoned metal mines.
* To provide design advice relating to active and passive mine water remediation schemes, develop innovative solutions and represent the organisation at a national and international level.
* To undertake and manage project technical work to improve our understanding of existing processes for and innovative solutions to mine water remediation.

**Responsibilities**

**Specific**

* To be a specialist advisor on the design of processes, including the use of chemicals, in the removal of pollutants from water, providing challenge and recommending robust and innovative solutions.
* On an on-going basis to evaluate the operational performance at existing Mine Water Treatment Schemes. To analyse and recommend technical improvements/developments that will improve performance, decrease cost, improve sustainability and which are mindful of the waste hierarchy.
* As required to participate in developing innovative or transferable technology solutions to mine water remediation involving, active, passive, chemical or biological processes.
* To support and evaluate the design of active and passive mine water remediation schemes for the effective removal of metals and other contaminants that are efficient, cost effective and environmentally sustainable. Using a high level of expertise in a range of technical solutions, chemistries and technologies able to develop the most appropriate solution to each scheme.
* To ensure that all aspects of process safety are considered in any new designs and retrofit installations and to be an effective champion for process safety in the organisation.
* As required to manage trials, develop innovation and opportunities that will increase the knowledge base and value of the intelligence and expertise of the Mining Remediation Authority.
* Provide technical briefings for trials and be responsible for the observance of robust scientific principles and a maximising of benefit from initiatives - analyse data and submit reports and recommendations.
* Be involved in scope development and tender assessment. To write, procure and manage technical contracts including the use of professional services and technical facilities. Technical review to ensure deliverables in line with the scope of works.
* Seek to support the develop world leading technologies in a range of chemistry and process engineering solutions for the treatment of mine waters. Keep aware of technical developments and seek to promote technical developments.
* Promotion of the Mining Remediation Authority nationally and internationally as a world leader in mine water treatment. Attending conferences, writing reports, publishing papers.
* To supervise and coordinate outsourced consultants assisting with the development of the mine water programme, where appropriate.

**General**

* Act in line with the behaviours and values of the organisation
* Manage your own performance to be accountable for meeting individual, team and corporate objectives
* Act in accordance with the Scheme of Delegation and ensure propriety and regularity in the handling of public funds
* Actively demonstrate the Mining Remediation Authority’s customer service standards expected of your role
* Follow and contribute to the improvement of operational and team processes and procedures
* Assist with the preparation and delivery of the team’s objectives, budgets and financial records
* Identify opportunities and implement change leading to team development, system improvement and ensuring good value for money
* Maintain and develop positive stakeholder relationships in order to promote the Mining Remediation Authority and assist it to meet its objectives
* Support research and development projects
* Ensure that the Mining Remediation Authority’s statutory responsibilities are effectively discharged
* Carry out any further reasonable requests from your line manager

**Competencies Level**

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| **Seeing the bigger picture** - has an in-depth understanding and knowledge of how the role fits with and supports The Mining Remediation Authority’s business priorities | **4** |
| **Changing and improving** - responsive, innovative and seek out opportunities for continuous improvement | **4** |
| **Making effective decisions** - objective; uses sound judgement, evidence and knowledge to provide accurate, expert and professional advice in a timely manner | **4** |
| **Leading and communicating** - leads from the front and communicates with clarity, conviction and enthusiasm | **4** |
| **Collaborating and partnering** - creates and maintains positive, professional and trusting working relationships with a wide range of people, within and outside The Mining Remediation Authority, to achieve results | **4** |
| **Building capability for all** - has a strong focus on continuous learning for self, others and the organisation | **4** |
| **Achieving commercial outcomes** - has a commercial, financial and sustainable mind-set to ensure all products and services deliver added value and stimulate growth | **4** |
| **Delivering good value for money** - achieves a good mix of quality and effectiveness for minimal cost and to improve return on investment | **4** |
| **Managing a quality service** - plans, organises and manages their time and activities to deliver a high-quality customer experience | **4** |
| **Delivering at pace** - delivers timely performance, with energy, and taking responsibility and accountability for high-quality outcomes | **4** |

**Person specification**

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|  | **Essential** | **Desirable** |
| **Qualifications and Training** | A relevant degree in chemistry, chemical or process engineering or equivalent. | Postgraduate qualification or equivalent in chemistry or process engineering Qualification in the design of process plants preferably related to water management Chartered status with relevant professional body |
| **Experience and Knowledge** | Experience in the design and operation of water treatment plants in one or more of the following areas: biological, chemical, process engineering. Aqueous metals chemistry including experience in the removal of metals from waterExperience managing testing and development for new treatment processes and improvement projects | Water industry experience Mine water treatment experience, especially in mining industryTrack record of innovation and introduction of efficiencies Understanding of mechanical and electrical plant associated with waste water treatment facilities. Experience with process safety |
| **Skills and Abilities** | Excellent communication and interpersonal skills (inc. report writing).Negotiation skills Decision making skills Team player Financial monitoring and control Ability to deal with sustained and high workloads Working to tight deadlines Analytical skillsAbility to challenge and innovate.Holds valid licence to drive in the UK |  |

 Travel and overnight stays – The role-holder is expected to undertake regular travel to the Mining Remediation Authority’s operational and construction sites in the UK (estimated mileage 5,000-10,000 per annum) including the requirement for occasional overnight stays. Overseas travel to attend conferences may also be required on an infrequent basis.