

## Compliance Assessment Report

Report ID:  
CAR\_NRW0035526

This form will report compliance with your permit as determined by an NRW officer

|                              |                                             |             |            |     |     |
|------------------------------|---------------------------------------------|-------------|------------|-----|-----|
| Site                         | Royal Mint EPR/KP3135KV                     | Permit Ref  | KP3135KV   |     |     |
| Operator/Permit holder       | The Royal Mint Ltd                          |             |            |     |     |
| Regime                       | Installations                               |             |            |     |     |
| Date of assessment           | 08/08/2019                                  | Time in     | N/A        | Out | N/A |
| Assessment type              | Report/Data Review                          |             |            |     |     |
| Parts of the permit assessed | Electrokinetic Remediation Report July 2019 |             |            |     |     |
| Lead officer's name          | Green, Rebecca                              |             |            |     |     |
| Accompanied by               |                                             |             |            |     |     |
| Recipient's name/position    | Martyn Grant/ Environmental Manager         | Date issued | 08/08/2019 |     |     |

### Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations or the licence under the Water Resources Act 1991 as amended by the Water Act 2003. A detailed explanation is captured in "Compliance Assessment Report Detail" (Section 2) and any actions you may need to take are given in the "Action(s)" (section 4). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our Compliance Classification Scheme (CCS). CCS Scores can be consolidated or suspended where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your local office.

| Permit conditions and compliance summary                                                                       | CCS Category | Condition(s) breached |
|----------------------------------------------------------------------------------------------------------------|--------------|-----------------------|
| A1 - Specified by permit                                                                                       | A            |                       |
| E2 - Emissions - Land and groundwater                                                                          | A            |                       |
| E3 - Emissions - Surface water                                                                                 | A            |                       |
| G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment               | A            |                       |
| G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales | A            |                       |

**KEY:** See Section 5 for breach categories, suspended scores will be indicated as such.

**A** = Assessed or assessed in part (no evidence of non-compliance), **X** = Action only,

**O** = Ongoing non-compliance, not scored.

|                             |   |                                                           |   |
|-----------------------------|---|-----------------------------------------------------------|---|
| Number of breaches recorded | 0 | Total compliance score (see section 5 for scoring scheme) | 0 |
|-----------------------------|---|-----------------------------------------------------------|---|

If the Number of breaches recorded is greater than zero, please see Section 3 for our proposed enforcement response

## Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- The part(s) of the permit that were assessed (eg. Maintenance, training, combustion plant, etc)
- Where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- Any non-compliances identified
- Any non-compliances with directly applicable legislation
- Details of any multiple non-compliances
- Information on the compliance score accrued inc.
- Details of advice given
- Any other areas of concern
- Any actions requested
- Any examples of good practice
- A reference to photos taken

A second progress report on the electrokinetic remediation work being carried out adjacent to Building NP1 was received on 30<sup>th</sup> July 2019. Another, slightly amended version, was received on 8<sup>th</sup> August 2019. The report is accepted.

Comparing the most recent analysis results with those from the start of the project, nickel (Ni) concentrations have generally decreased by a significant amount. The plume of Ni contamination around the treatment area also seems to have reduced significantly since December 2018. Ni concentrations in the various boreholes in the vicinity of the remediation work are still very variable, but they seem to be showing an overall tendency to reduce.

The technique is proving more effective than previous remediation methods.

The trial is using mild steel anodes but these do have some disadvantages compared with stainless steel. They will be eroded over time, reducing their surface area and releasing iron ions in the "electrolyte". The reducing area means that the current density at the anode will increase, causing an increase in anodic polarisation which makes it more difficult to deposit the Ni ions at the cathode. The iron ions are likely to compete with the Ni for deposition sites at the cathode, increasing polarisation at the cathode.

Mild steel anodes have an average life of about three months. It is unlikely that stainless steel anodes would need to be replaced more than once a year. The change in cross sectional area of the cathodes should not be a cause for concern as this will only increase their effective surface area, which is advantageous.

Extra cathodes have been added "upstream" (with respect to groundwater flow) of the anodes. Previous trials seemed to show that the remediation worked better with "downstream" cathodes so it will be interesting to see if these extra cathodes are of any benefit. It is usual practice in electrochemical treatment to have an anode to cathode ratio of at least 1:1, rather than 1:2, as in this case. An increased anode area will help to reduce polarisation, especially in solutions with low conductivity.

Natural Resources Wales (NRW) agree that it would be sensible to treat the contaminated abstracted water in the on-site effluent treatment plant, if this is feasible.

Please continue to keep NRW updated with progress reports on this remediation work.

**END.**

## EPR Compliance Assessment Report

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|                        |                         |            |            |
|------------------------|-------------------------|------------|------------|
| Site                   | Royal Mint EPR/KP3135KV | Permit Ref | KP3135KV   |
| Operator/Permit holder | The Royal Mint Ltd      | Date       | 08/08/2019 |

### Section 3 – Enforcement Response

You must take immediate action to rectify any non-compliance and prevent repetition. Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed.

### Section 4 – Action(s)

This section summarises the actions identified during the assessment along with the timescales for when they will need to be completed.

| Criteria Ref.       | CCS Category | Action required/advised | Due Date |
|---------------------|--------------|-------------------------|----------|
| See Section 1 above |              |                         |          |

## Section 5 – Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- Advise on corrective actions verbally or in writing
- Require you to take specific actions verbally or in writing
- Issue a notice
- Require you to review your procedures or management system
- Change some of the conditions of your permit
- Decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and/or suspension or revocation of the permit.

**See our Enforcement and Civil Sanctions guidance for further information**

This report does not relieve the site operator of the responsibility to

- Ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- Ensure you comply with other legislative provisions which may apply

### Non-compliance scores and categories

| CCS category | Description                                                          | Score |
|--------------|----------------------------------------------------------------------|-------|
| C1           | A non-compliance that could have a major environmental effect        | 60    |
| C2           | A non-compliance which could have a significant environmental effect | 31    |
| C3           | A non-compliance which could have a minor environmental effect       | 4     |
| C4           | A non-compliance which has no potential environmental effect         | 0.1   |

**Operational Risk Appraisal (Opra)** - Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

## Section 6 – General information

### Data protection notice

The information on this form will be processed by the Natural Resources Wales (NRW) to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s). The NRW may also use and/or disclose it in connection with:

- Offering/providing you with its literature/services relating to environmental matters
- Consulting with the public, public bodies and other organisations (eg. Health and Safety Executive, local authorities) on environmental issues
- Carrying out statistical analysis, research and development on environmental issues
- Providing public register information to enquirers
- Investigating possible breaches of environmental law
- Assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Regulations request

The NRW may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

### Disclosure of information

The NRW will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within fifteen working days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

### Customer charter

#### What can I do if I disagree with this compliance assessment report?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with officer's line managers using the informal appeals procedure. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 0300 065 3000 (Mon to Fri 08.00 – 18.00) and ask for the Customer Contact team or send an email to [enquiries@naturalresourceswales.gov.uk](mailto:enquiries@naturalresourceswales.gov.uk). If you are still dissatisfied you can make a complaint to the Public Services Ombudsman for Wales. For advice on how to complain to the Ombudsman phone their helpline on 0845 607 0987.

#### Welsh Language

If you would like this form in Welsh please contact your Regulatory Officer.