

# Variation notice with introductory note

Environmental Permitting (England & Wales) Regulations 2010

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The Royal Mint

The Royal Mint Limited  
Llantrisant  
Pontyclun  
CF72 8YT

Variation notice number  
EPR/KP3135KV/V002

Permit number  
EPR/KP3135KV

# **The Royal Mint**

## **Permit number EPR/KP3135KV**

### **Introductory note**

***This introductory note does not form a part of the permit***

The following notice, which is issued pursuant to Regulation 20 and Part 1 of Schedule 5 of the Environmental Permitting (England and Wales) Regulations 2010 S.I.2010 No. 675 (the Regulations), gives notice of the variation of an environmental permit to operate a regulated facility.

The changes are:

- Installation of two new nickel plating lines.
- Installation of a new effluent treatment plant to replace existing effluent plant, which involves changing the original installation boundary.
- Removal of one nickel plating line and one chrome plating line.

In addition, a number of minor changes to the process and omissions from the original permit application reference VP3539SL have been incorporated in this variation.

Schedule 1 of this notice lists any deleted conditions, Schedule 2 lists any amended conditions, Schedule 3 lists any conditions that have been added and Schedule 4 shows any changes to the plan.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status Log of the permit		
Detail	Date	Response Date
Application EPR/VP3539SL	Duly made 25/10/2004	
Additional Information Received	Request dated 27/10/2004	08/11/2004
Additional Information Received	Request dated 30/11/2004	09/12/2004, 15/12/2004
Additional Information Received	Request dated 20/12/2004	22/12/2004, 07/01/2005
Permit determined EPR/VP3539SL	10/01/2005	
Transfer application EPR/KP3135KV/T001 (full transfer of permit EPR/VP3539SL)	Duly made 27/10/2009	
Transfer issued EPR/KP3135KV/T001	18/12/09, effective 01/01/10	
Application EPR/KP3135KV/V002	Duly made 15/09/10	
Additional Information Received	Request dated 18/10/2010	25/10/10
Variation issued EPR/KP3135KV/V002	25/11/10	

End of Introductory Note

**Notice of variation**

Environmental Permitting  
(England and Wales) Regulations 2010

Permit number

**EPR/KP3135KV**

The Environment Agency in exercise of its powers under Regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 (SI 2010 No 675) varies the permit as set out below.

**The Royal Mint Limited** (“the operator”),

Whose registered office is

**The Royal Mint**

**Llantrisant**

**Pontyclun**

**CF72 8YT**

company registration number 06964873

holds a permit to operate a regulated facility at

**The Royal Mint**

**Llantrisant**

**Pontyclun**

**CF72 8YT**

and that permit is varied to the extent set out in Schedules 1 to 4 of this notice.

The notice shall take effect from 25/11/10

Name	Date
	25 <sup>th</sup> November 2010

S. Attwood

Principal Permitting Team Leader, National Permitting Service

Authorised on behalf of the Environment Agency

## **Schedule 1 – conditions to be deleted**

The following conditions are deleted:

All conditions in permit VP3539SL and subsequently transferred as permit KP3135KV.

## **Schedule 2 – conditions to be amended**

None.

## **Schedule 3 – conditions to be added**

The following conditions are added to the permit:

### **1 Management**

#### **1.1 General management**

1.1.1 The operator shall manage and operate the activities:

- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
- (b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

#### **1.2 Energy efficiency**

1.2.1 The operator shall:

- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
- (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (c) take any further appropriate measures identified by a review.

#### **1.3 Efficient use of raw materials**

1.3.1 The operator shall:

- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
- (b) maintain records of raw materials and water used in the activities;
- (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
- (d) take any further appropriate measures identified by a review.

## **1.4 Avoidance, recovery and disposal of wastes produced by the activities**

1.4.1 The operator shall:

- (a) take appropriate measures to ensure that waste produced by the activities is avoided or reduced, or where waste is produced it is recovered wherever practicable or otherwise disposed of in a manner which minimises its impact on the environment;
- (b) review and record at least every four years whether changes to those measures should be made; and
- (c) take any further appropriate measures identified by a review.

## **2 Operations**

### **2.1 Permitted activities**

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).

### **2.2 The site**

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

### **2.3 Operating techniques**

- 2.3.1
- (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
  - (b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan specified in schedule 1, table S1.2 or otherwise required under this permit, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
  - (b) the composition of the waste;
  - (c) the handling requirements of the waste;
  - (d) the hazardous property associated with the waste, if applicable; and
  - (e) the waste code of the waste.



- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

## **2.4 Improvement programme**

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

## **3 Emissions and monitoring**

### **3.1 Emissions to water, air or land**

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Total annual emissions from the emission point(s) set out in table(s) schedule 3 S3.1, S3.2 and S3.3 of a substance listed in schedule 3 table S3.4 shall not exceed the relevant limit in table S3.4.

### **3.2 Emissions of substances not controlled by emission limits**

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

### **3.3 Monitoring**

- 3.3.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1, S3.2 and S3.3.

- 3.3.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.3.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.3.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.3.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.

## **3.4 Noise and vibration**

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

# **4 Information**

## **4.1 Records**

- 4.1.1 All records required to be made by this permit shall:
- (a) be legible;
  - (b) be made as soon as reasonably practicable;
  - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
  - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
    - (i) off-site environmental effects; and
    - (ii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

## **4.2 Reporting**

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
  - (b) the annual production /treatment data set out in schedule 4 table S4.2; and
  - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
  - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4 ; and
  - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

### **4.3 Notifications**

- 4.3.1 The Environment Agency shall be notified without delay following the detection of:
- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;
  - (b) the breach of a limit specified in the permit; or
  - (c) any significant adverse environmental effects.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

- (a) a decision by the Secretary of State not to re-certify the agreement;
- (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
- (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

## 4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

## Schedule 1 - Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A1	S2.3A(1)(a)	Surface treatment of metals	From receipt of raw materials to despatch of finished products and waste
A2	2.2A(1)(b)	Melting and casting of metals	From receipt of raw materials to despatch of finished products and waste
Directly Associated Activity			
A3	S5.3A(1)(b)(ii)	Effluent treatment	From receipt of effluent until discharge to public sewer
A4	NA	Drainage of surface water	Handling and storage of site drainage prior to discharge of uncontaminated surface water into controlled waters
A5	NA	Annealing and burnishing	From receipt of raw materials to despatch of finished products and waste
A6	NA	Heat treatment of tool dies	From receipt of raw materials to despatch of finished products and waste

Table S1.2 Operating techniques		
Description	Parts	Date Received
Permit Application Reference VP3539SL	Section 2.5.3 of 'Installation report' Section 2.10.5 'Emission Point A14' of 'Installation report'	25/10/2004
Letter dated 07/01/2005 'Response to PPC Permit Application VP3539SL'	Item 4 (cyclone bypass)	07/01/2005
Permit Variation Application Supporting Information	Section 2.2 In Process Controls Section 2.3.1 Emissions to air Table 2.3.2 Emissions to water Section 2.10.3 Monitoring and Reporting of Emissions to Sewer Section 2.10.4 Monitoring and Reporting of Emissions to Surface Water Section 2.10.6 Monitoring and Reporting of Emissions to Air	15/09/2010

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IP1	<p>The Operator shall submit a methodology, including timescales, to the Agency for the implementation of alternative technical measures to control air emissions from A1 to A13 including, but not limited, to the following:</p> <ul style="list-style-type: none"> <li>▪ Treatment tank temperature control</li> <li>▪ Treatment tank chemical concentration</li> <li>▪ Treatment tank levels and freeboard depth</li> <li>▪ Treatment tank agitation methods</li> </ul> <p>Improvements and procedures shall be agreed with the Agency in writing.</p>	01/09/2005
IP2	The Operator shall implement alternative technical measures as defined by the approved methodology proposed in response to IP1.	As agreed in response to IP1
IP3	The operator shall assess the feasibility of installing a composite sampler at emission point W1. A written report summarising the findings shall be submitted to the Agency.	01/10/2005
IP4	<p>The Operator shall implement operating procedures for discharges to controlled water from the COMAH area surface water containment tank. The procedures shall consider:</p> <ul style="list-style-type: none"> <li>• Operating techniques during normal operation and emergency conditions</li> <li>• Calibration and maintenance of conductivity meter(s)</li> <li>• Training of relevant staff</li> </ul> <p>A summary of the procedures shall be submitted to the Agency. Improvements identified shall be agreed in writing with the Agency including timescales and undertaken as agreed.</p>	01/08/2005
IP5	The Operator shall submit a report to the Agency by the date given in this programme, demonstrating whether the conductivity probes used for continuous measurement of conductivity on the effluent discharge to water meets with the performance standards given in the MCERTS document 'Continuous Water Monitoring Equipment Part 2, v1 February 2003'. The report shall include an assessment of the probes' performance with the criteria given in the standard and where these are not met, proposals and time-scales required to achieve the standard.	01/09/2005
IP6	<p>The Operator shall provide to the Agency a report detailing improvements to the installation effluent treatment techniques in terms of reducing emissions to sewer, in particular copper and cyanide, to levels detailed in Table 3.2 of 'Guidance for the Surface Treatment of Metals and Plastics &amp;c.' S2.07. The report shall include a BAT justification for the techniques used and where necessary the report should also include the details for upgrading or replacement of these.</p> <p>This report shall include effluent treatment operational procedures, in particular:</p> <ul style="list-style-type: none"> <li>▪ In house monitoring regime to include methods and frequency of analysis of key pollutants including but not limited to copper and cyanide</li> <li>▪ Chemical treatment</li> <li>▪ Control of flow rate</li> </ul> <p>The report shall provide a plan with timescales for the implementation of the improvements identified and shall be agreed by the Agency in writing.</p>	01/12/2005
IP7	The operator shall complete the improvements identified in the previous condition relating to emissions to sewer and associated installation effluent treatment techniques.	As agreed in previous improvement condition.

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IP8	<p>The Operator shall submit to the Agency in writing, a programme of regular testing and inspection of all waste and chemical storage areas commencing with an initial audit to identify any necessary improvements to standards detailed in Section 2.2.5 of 'Guidance for the Surface Treatment of Metals and Plastics &amp;c.' S2.07. The audit and programme shall include the following:</p> <ul style="list-style-type: none"> <li>▪ Inspection of primary, secondary and tertiary containment measures</li> <li>▪ Inspection of coatings applied to secondary and tertiary containment</li> <li>▪ Segregation of chemicals dependent upon reactivity</li> <li>▪ Size of containment based on maximum stock levels</li> </ul> <p>The proposed inspection regime shall be agreed with the Agency in writing and implemented throughout the installation. A summary of the audit findings shall also be submitted to the Agency for approval with improvements identified as appropriate.</p>	01/12/2005
IP9	The operator shall undertake improvements identified in initial audit as approved by the Agency in IP8	As agreed in writing by the Agency
IP10	The Operator shall undertake a feasibility study to investigate reuse of water from the installation effluent treatment plant. A summary of the report shall be submitted to the Agency. Improvements identified shall be agreed in writing with the Agency including timescales and undertaken as agreed.	01/04/2006
IP11	The Operator shall submit a report to the Agency, demonstrating whether the PCME DT 200 used for continuous measurement of particulate matter at release point A14 meets with the performance standards given in the MCERTs document 'MCERTs Performance Standard for Continuous Emission Monitoring Systems, version 2 revision 1, April 2003'. The report shall include an assessment of the instruments' performance with the criteria given in the standard and where these are not met, proposals and a time-scale to achieve the standard.	01/01/2006 (unless otherwise agreed in writing with Agency)
IP12	The Operator shall implement a programme of integrity testing of all underground storage chambers and sub-surface structures. Improvements identified shall be agreed in writing with the Agency including timescales and undertaken as agreed.	01/01/2006
IP13	The Operator shall obtain full ISO14001 certification for the operator's EMS as detailed in the application.	01/02/2006 (unless otherwise agreed in writing by the Agency)
IP14	The operator shall submit proposals for an impact assessment procedure for air emissions to include all emissions from the MRB and surface treatment activities. The assessment procedure shall follow the horizontal guidance IPPC H1, or an equivalent appropriate assessment. The proposals shall be agreed in writing with the Agency and assessment carried out as agreed.	01/06/2006
IP15	<p>The Operator shall identify and investigate minimisation, reuse or recycling of raw materials including, but not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Pickling acid</li> <li>• Copper and Nickel from plating process</li> </ul> <p>A summary of the report shall be submitted to the Agency. Improvements identified shall be agreed in writing with the Agency including timescales and undertaken as agreed.</p>	01/06/2006

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IP16	The Operator shall undertake a feasibility study to reduce emissions to water at W1 of free cyanide and free chlorine. The study shall be submitted to the Agency to include a monitoring programme and propose improvements to operating techniques to enable levels of the above parameters to fall to within proven environmentally acceptable limits. Improvements identified shall be agreed in writing with the Agency including timescales and undertaken as agreed.	01/09/2006
IP17	The Operator shall provide a report in writing to the Agency detailing the monitoring method used to determine effluent flow at release point W1 and S1. The monitoring method shall be agreed in writing with the Agency.	01/06/2005
IP18	The Operator shall assess the current method for effluent flow as agreed in IP17 with the requirements given in the MCERTS standard 'Minimum requirements for the self-monitoring of effluent flow' version 2, Aug 2004. A written report shall be provided to the Agency detailing how this standard is to be achieved and shall include time scales for implementation.	01/01/2006 (unless otherwise agreed in writing with Agency)
IP19	Submit a written commissioning report to the Environment Agency for approval. The report shall include a review of all measures in place to minimise emissions to the environment. Where deficiencies are identified, the report must contain dates for the implementation of individual improvements. The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the report.	01/04/11
IP20	Submit proposals to the Environment Agency for approval to undertake monitoring, followed by an environmental assessment, of air emissions from a representative number of emissions points associated with the annealing processes and new nickel plating lines (A15 – A27 inclusive). The assessment shall be submitted to the Environment Agency having regard to the Environment Agency's Guidance Note H1 Annex F: Air Emissions. The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the report.	01/05/11



## Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
None	

## Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 and A2 (Points A1 and A2 on Figure 2 in Annex A)	No parameters set	Zinc plating ZP1	No monitoring required			
A3 and A4 (Points A3 and A4 on Figure 2 in Annex A)	No parameters set	Copper plating CP2	No monitoring required			
A7 and A8 (Points A7 and A8 on Figure 2 in Annex A)	No parameters set	Copper plating CP3	No monitoring required			
A9 and A10 (Points A9 and A10 on Figure 2 in Annex A)	No parameters set	Nickel Plating Plant 2	No monitoring required			
A14 (Point A14 on Figure 2 in Annex A)	Copper and its compounds	Melting Rolling Blanking (MRB) Furnace	5mg/m <sup>3</sup>	Spot sample	Annually	BS EN 14385:2004
A14 (Point A14 on Figure 2 in Annex A)	Nickel and its compounds as Ni	Melting Rolling Blanking (MRB) Furnace	1mg/m <sup>3</sup>	Spot sample	Annually	BS EN 14385:2004
A14 (Point A14 on Figure 2 in Annex A)	Particulate matter	Melting Rolling Blanking Furnace	50mg/m <sup>3</sup>	Spot sample	Annually	BS EN13284-1:2002
A15 and 16 (Point A15 and A16 on Figure 2 in Annex A)	No parameters set	Nickel plating lines 4 and 5	No monitoring required			
A17-27 (Points A17-27 on Figure 2 in Annex A)	No parameters set	Annealing ovens and A&P building vents	No monitoring required			
A28 (Point A28 on Figure 2 in Annex A)	No parameters set	Melting Rolling Blanking Mill Extraction	No monitoring required			
A29 Die Heat Treatment Ovens	No parameters set	Heat treatment and tool room vents	No monitoring required			

**Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements**

Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 (Point W1 on Figure 3 in Annex A)	Free chlorine	Uncontaminated non-contact cooling water and uncontaminated surface water	0.1mg/l	Spot sample	Monthly	As approved by Environment Agency
W1 (Point W1 on Figure 3 in Annex A)	Suspended solids	Uncontaminated non-contact cooling water and uncontaminated surface water	50mg/l	24-hour flow proportional sample	Monthly	BS EN 872:1996 BS6068-2.54:1996
W1 (Point W1 on Figure 3 in Annex A)	Temperature	Uncontaminated non-contact cooling water and uncontaminated surface water	30°C	Spot sample	Monthly	As approved by Environment Agency
W1 (Point W1 on Figure 3 in Annex A)	Oil	Uncontaminated surface water from roadways and roofs	None visible	Spot sample	Weekly	Visual check
W2 (Point W2 on Figure 3 in Annex A)	No parameters set	Uncontaminated surface water from copper plating CP3 roof	No monitoring required			
W3 (Point W3 on Figure 3 in Annex A)	Oil	Uncontaminated surface water from roofs and COMAH area sump	None visible	Spot sample	Weekly	Visual check
W5 (Point W5 on Figure 3 in Annex A)	Oil	Uncontaminated surface water from roadways and roofs	None visible	Spot sample	Weekly	Visual check
W6 (Point W6 on Figure 3 in Annex A)	Oil	Uncontaminated surface water from roadways and roofs	None visible	Spot sample	Weekly	Visual check
W7 (Point W7 on Figure 3 in Annex A)	Oil	Uncontaminated surface water from roadways and roofs	None visible	Spot sample	Weekly	Visual check

**Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site–  
emission limits and monitoring requirements**

<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (incl. Unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
S1 (Point S1 on Figure 3 in Annex A)	Free cyanide	Site effluent treatment plant	0.2mg/l	Spot sample	Monthly	BS EN ISO 14403:2002 BS6068-2.75:2002
S1 (Point S1 on Figure 3 in Annex A)	Copper and its compounds	Site effluent treatment plant	1.0mg/l	Spot sample	Monthly	BS ISO 17294-2:2003, BS6068-2.89:2003
S1 (Point S1 on Figure 3 in Annex A)	pH	Site effluent treatment plant	Minimum 6, Maximum 11	Hourly average	Continuous	BS6068-2.50

## Schedule 4 - Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.3.1.	A14	Every 12 months	1 January each year.
Emissions to water Parameters as required by condition 3.3.1	W1, W3, W5, W6, W7	Every 6 months	1 January, 1 July
Emissions to sewer Parameters as required by condition 3.3.1	S1	Every 3 months	1 January, 1 April, 1 July, 1 October.

Table S4.2: Annual production/treatment	
Parameter	Units
Final product tonnage (treated coins)	Tonnes

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water abstraction from river	Annually	m <sup>3</sup> /year
Mains water used	Annually	m <sup>3</sup> / year
Electricity usage	Annually	MWh
Natural gas usage	Annually	MWh
CO <sub>2</sub> / final product tonnage	Annually	Kg/Tonne
Total waste/ final product tonnage	Annually	Tonne/Tonnes

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Form Air1 or other form as agreed in writing by the Environment Agency	25/11/10
Water	Form Water1 or other form as agreed in writing by the Environment Agency	25/11/10
Sewer	Form Sewer1 or other form as agreed in writing by the Environment Agency	25/11/10
Water usage	Form WaterUsage 1 or other form as agreed in writing by the Environment Agency	25/11/10
Energy usage	Form Energy1 or other form as agreed in writing by the Environment Agency	25/11/10
Other performance indicators	Form Performance1 or other form as agreed in writing by the Environment Agency	25/11/10

## Schedule 5 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

### Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

**(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution**

To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

**(b) Notification requirements for the breach of a limit**

To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

### Part B - to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of The Royal Mint Limited

## Schedule 6 - Interpretation

“accident” means an accident that may result in pollution.

“annually” means once every year.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“hazardous property” has the meaning given in Schedule 3 of the Hazardous Waste (England and Wales) Regulations 2005 No.894 and the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138).

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“year” means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- (a) in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- (b) in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content



## Schedule 4 – amended plan

Amended plan attached



Permit Number: KP3135KV

Operator: The Royal Mint Limited

Facility: The Royal Mint

Form Number: Air1 / 25/11/10

### Reporting of emissions to air for the year 2011

Emission Point	Substance / Parameter	Emission	Reference Period	Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Uncertainty <sup>[4]</sup>
		Limit Value					
A14	Particulate Matter	50 mg/m <sup>3</sup>	Spot sample		BS EN 13284-1		
A14	Copper and its compounds	5 mg/m <sup>3</sup>	Spot sample		BS EN 14385:2004		
A14	Nickel and its compounds as Ni	1 mg/m <sup>3</sup>	Spot sample		BS EN 14385:2004		

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed .....  
(Authorised to sign as representative of Operator)

Date.....

Permit Number: KP3135KV

Operator: The Royal Mint Limited

Facility: The Royal Mint

Form Number: Water 1 / 25/11/10

**Reporting of emissions to water (other than to sewer) for the period from .....**

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result <sup>[1] [5]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Uncertainty <sup>[4]</sup>
W1	Free Chlorine	0.1mg/l	Spot sample		As approved by Environment Agency		
W1	Temperature	30°C	Spot sample		As approved by Environment Agency		
W1	Suspended solids	50mg/l	24-hour flow proportional sample		BS EN 872:1996 BS6068-2.54:1996		
W1	Oil	None Visible	Spot check		Visual		
W3	Oil	None Visible	Spot check		Visual		
W4	Oil	None Visible	Spot check		Visual		
W5	Oil	None Visible	Spot check		Visual		
W6	Oil	None Visible	Spot check		Visual		
W7	Oil	None Visible	Spot check		Visual		

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

[5] Only include on report if oil is visible.

Signed .....  
(Authorised to sign as representative of Operator)

Date.....

Permit Number: KP3135KV

Operator: The Royal Mint Limited

Facility: The Royal Mint

Form Number: Sewer 1 / 25/11/10

### Reporting of emissions to sewer for the year 2011

Emission Point	Substance / Parameter	Emission		Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Uncertainty <sup>[4]</sup>
		Limit Value	Reference Period				
S1	Free cyanide	0.2mg/l	24-hour flow proportional sample		BS EN ISO 14403:2002 BS6068-2.75:2002		
S1	Copper and its compounds	1.0mg/l	24-hour flow proportional sample		BS ISO 17294-2:2003, BS6068-2.89:2003		
S1	pH	Minimum 6, Maximum 11	Continuous		BS6068-2.50		

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed .....  
(Authorised to sign as representative of Operator)

Date.....

Permit Number: KP3135KV

Operator: The Royal Mint Limited

Facility: The Royal Mint

Form Number: WaterUsage 1 / 25/11/10

### Reporting of Water Usage for the year 2011

Water Source	Usage (m <sup>3</sup> /year)	Specific Usage (m <sup>3</sup> /unit output)
Mains water		
River abstraction		
TOTAL WATER USAGE		

Operator's comments :

Signed .....  
(authorised to sign as representative of Operator)

Date.....

Permit Number: KP3135KV

Operator: The Royal Mint Limited

Facility: The Royal Mint

Form Number: Energy 1 / 25/11/10

### Reporting of Energy Usage for the year 2011

Energy Source	Energy Usage		
	Quantity	Primary Energy (MWh)	Specific Usage (MWh/unit output)
Electricity *	MWh		
Natural Gas	MWh		
TOTAL	-		

\* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments :

Signed .....  
(Authorised to sign as representative of Operator)

Date.....

Permit Number: KP3135KV

Operator: The Royal Mint Limited

Facility: The Royal Mint

Form Number: Performance 1 / 25/11/10

### Reporting of other performance indicators for the year 2011

Parameter	Units
Total final product tonnage	tonnes
CO <sub>2</sub> / final product tonnage	kg CO <sub>2</sub> / tonnes of product
Total waste / final product tonnage	Tonne waste/tonne of product

Operator's comments :

Signed .....  
(Authorised to sign as representative of Operator)

Date.....