

# Notice of variation and consolidation with introductory note

**The Environmental Permitting (England & Wales) Regulations 2016**

---

AWE PLC

Aldermaston Carbon Activity  
Aldermaston  
Reading  
Berkshire  
RG7 4PR

**Variation application number**

EPR/WP3436UJ/V002

**Permit number**

EPR/WP3436UJ

# Aldermaston Carbon Activity

## Permit number EPR/WP3436UJ

### Introductory note

#### **This introductory note does not form a part of the notice.**

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

#### **Changes introduced by this variation notice/statutory review**

This variation has been issued to update some of the conditions following a statutory review of the permits in the industry sector for non-ferrous metals. The opportunity has also been taken to consolidate the original permit and subsequent variations.

The Industrial Emissions Directive (IED) came into force on 7th January 2014 with the requirement to implement all relevant Best Available Techniques (BAT) Conclusions as described in the Commission Implementing Decision. The BAT Conclusions (BATc) for the non-ferrous metals industries were published on 30<sup>th</sup> June 2016 in the Official Journal of the European Union (L174) following a European Union wide review of BAT, implementing decision (EU) 2016/1032 of 13<sup>th</sup> June 2016. The BATc for this installation which would apply from 30<sup>th</sup> June 2020 are 1, 2, 3, 14, 18 and 19. The operator is already compliant with the BATc.

The schedules specify the changes made to the permit. Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

#### **Brief description of the process**

The main features of the installation are as follows.

The Atomic Weapons Establishment (AWE) is central to the defence of the United Kingdom; providing and maintaining the warheads for the country's nuclear deterrent. AWE operations cover the whole life cycle of nuclear warheads. This includes initial concept, research and design, through component manufacture and assembly, to in-service support and, finally, decommissioning and disposal. It also undertakes a wide range of research activities into the behaviour and chemical and physical properties of radioactive and non-active materials.

The AWE Aldermaston site occupies an area of approximately 3.5 km<sup>2</sup> and lies immediately east of the A340, 15 km south west of Reading, 11 km north of Basingstoke and 13 km south east of Newbury. The village of Aldermaston lies to the north of the site with the built-up areas of Tadley and Pamber Heath to the south. To the east and north east are coniferous woodlands, commons and agricultural land between the site and the communities of Burghfield Common and Mortimer. The closest residential properties are 200-300 metres south of the main entrance to the site and there are a number of other isolated properties along the southern perimeter.

The permitted activities at the installation are:

- Section 6.2 Part A (1)(a) - *producing carbon or hard-burnt coal or electro-graphite by means of incineration or graphitisation, and*
- Section 4.2 Part A (1)(b) - *unless falling within any other Section, any manufacturing activity which is likely to result in the release into the air of any hydrogen halide ... or which is likely to result in the release into the air or water of any halogen...*(in this case a manufacturing activity with potential to release into air or into water hydrogen chloride).

The permitted activities are carried out in two facilities on the site. The activities produce specialised carbon products, primarily from carbon forming material; hydrogen; chlorine; and non-ferrous metals. Furnaces are used in the carbon and chlorination activity. Water is used for cooling purposes. The activities use small quantities of chlorine which produce emissions of hydrogen chloride which have been shown in an environmental impact assessment to be insignificant when released to air or water at the quantity used. There are small releases of various other pollutants to air that an environmental impact assessment has also shown to be insignificant, the main ones being carbon fibre, hydrogen cyanide, carbon dioxide, ammonia, carbon monoxide, methane and hydrogen.

There are no sensitive receptors (Sites of Special Scientific Interest (SSSI) or European sites) affected by the installation and there are no impacts on local inhabitants.

The activities meet the criteria of a Low Impact Installation.

Aldermaston Carbon Activity (the Installation) is operated by AWE PLC and is located in Aldermaston, Berkshire, England.

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

Status log of the permit		
Description	Date	Comments
Application received EPR/WP3436UJ/A001	Duly made 24/03/04	
Additional information received	Received 25/07/07	Updated Application Form, Part 1 and 2
Additional information received	Received 25/07/07	Additional information Doc SCT03/AD/284/B
Request for determination extension to 29/02/08	Request 19/11/07	
Additional information A89/AD/54/B, Map 1.1, Map 1.2a, Map 1.2b, Plan 1.2.1 and Plan 1.2.2.	Received 15/11/07	
Permit determined	25/01/08	Low Impact Installation
Regulation 60 Notice dated 16/12/16 (Notice requiring information for statutory review of permit)	Response Received 30/03/17	Technical standards detailed in response to the information notice.  Information to demonstrate that relevant BAT Conclusions are met for the non-ferrous metals industries as detailed in document reference L174.
Notified of change of Registered Office	23/01/18	Registered office changed to Room 20, Building F161.2, Atomic Weapons Establishment, Aldermaston, Reading, RG7 4PR.
Environment Agency initiated variation EPR/WP3436UJ/A001/V002 (variation and consolidation)  Variation determined EPR/WP3436UJ/V002 (PAS / Billing Ref: QP3634JU)	14/06/18	Statutory review of permit – Non-ferrous metals BAT Conclusions published 30/06/16  Varied and consolidated permit issued

Other Part A installation permits relating to this installation		
Process	Permit number	Date of issue
Aldermaston Non-ferrous Metals activity	BK5746IC	21/01/08
Aldermaston Combustion Process	VP3436UY	31/01/08

End of introductory note

# Notice of variation and consolidation

## The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates

### Permit number

**EPR/WP3436UJ**

### Issued to

**AWE PLC** ("the operator")

whose registered office is

**Room 20**

**Building F161.2**

**Atomic Weapons Establishment**

**Aldermaston**

**Reading**

**RG7 4PR**

company registration number 02763902

to operate an installation at

**Aldermaston Carbon Activity**

**Aldermaston**

**Reading**

**Berkshire**

**RG7 4PR**

to the extent set out in the schedules.

The notice shall take effect from 14/06/2018

Name	Date
Tom Swift	14/06/2018

Authorised on behalf of the Environment Agency

## **Schedule 1**

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

## **Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.

# Permit

## The Environmental Permitting (England and Wales) Regulations 2016

### Permit number

**EPR/WP3436UJ**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/WP3436UJ/V002 authorising,

**AWE PLC** ("the operator"),

whose registered office is

**Room 20**

**Building F161.2**

**Atomic Weapons Establishment**

**Aldermaston**

**Reading**

**RG7 4PR**

company registration number 02763902

to operate an installation at

**Aldermaston Carbon Activity**

**Aldermaston**

**Reading**

**Berkshire**

**RG7 4PR**

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Tom Swift	14/06/2018

Authorised on behalf of the Environment Agency

# Conditions

## 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 take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
  - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
  - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and 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 identified in the Application, Map 1.2a, Map 1.2b, Plan 1.2.1 and Plan 1.2.2. This is within the area edged in red on the site plan at schedule 7 to this permit and represents the extent of the installation covered by this permit and that of the operator of the installation. (For National Security the plans and maps are not included in the Permit).

### **2.3 Operating techniques**

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated in accordance with the Low Impact Installation criteria specified in the Environment Agency’s Environmental Permitting application form at the time the permit application was duly made.
- 2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 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.

## **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 and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.

### **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

which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;

- (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 Odour**

3.3.1 Emissions from the activities shall be free from odour 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 odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
- (b) implement the approved odour management plan, from the date of approval, 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.

3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## **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 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 shall include as a minimum, a review of the results of the actual and anticipated operation of the installation against the low impact criteria issued by the Environment Agency at the time of the review.

## 4.3 Notifications

- 4.3.1 In the event:
  - (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
    - (i) inform the Environment Agency,
    - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
    - (iii) take the measures necessary to prevent further possible incidents or accidents;
  - (b) of a breach of any permit condition the operator must immediately—
    - (i) inform the Environment Agency, and
    - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
  - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i) 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 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 "immediately" in which case it may be provided by telephone.

# Schedule 1 – Operations

Table S1.1 - activities		
Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
Section 6.2 A(1)(a)	Producing carbon or hard-burnt coal or electro-graphite by means of incineration or graphitisation	From receipt of raw materials into process, to transfer to packaging and storage.
Section 4.2 A(1)(b)	Unless falling within any other Section, any manufacturing activity which is likely to result in the release into the air of any hydrogen halide (other than the manufacture of glass or the coating, plating or surface treatment of metal) or which is likely to result in the release into the air or water of any halogen or any of the compounds mentioned in paragraph (a)(vi) (other than the treatment of water).	From receipt of raw materials into process to transfer to storage and packaging.

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

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
--	--

## Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 (Facility 1 stack EA1) Plan 1.2.2 and Map 1.2a	Furnace operation	No parameters set	-	-	-	-
A2 (Facility 2 stack EA2) from off gas scrubber) - Plan 1.2.1 and Map 1.2a	Furnace operation	No parameters set	-	-	-	-

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
L1 [Discharge (EW1) to shared sump tank (Facility 1) for onward discharge to site Effluent Treatment Plant] Plan 1.2.2 and Map 1.2a	Dry pumps, cooling and water scrubber.	No parameters set	-	-	-	-

## Schedule 4 – Reporting

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
No parameters set	-	-	-

Table S4.2: Annual production/treatment	
Parameter	Units
No parameters set	-

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	tonnes
Chlorine usage	Annually	tonnes

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	14/06/18
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	14/06/18

# 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	

<b>(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</b>	
<b>To be notified within 24 hours of detection</b>	
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>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Measures taken, or intended to be taken, to stop the emission	

<b>Time periods for notification following detection of a breach of a limit</b>	
<b>Parameter</b>	<b>Notification period</b>

<b>(c) Notification requirements for the detection of any significant adverse environmental effect</b>	
<b>To be notified within 24 hours of detection</b>	
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.	

Name*	
Post	
Signature	
Date	

\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

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

“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 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

“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 in Annex III of the Waste Framework Directive.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions.

“year” means calendar year ending 31 December.

## Schedule 7 – Site plan

Location of AWE Aldermaston Site showing site boundary (not installation boundary)



“©Crown Copyright. All rights reserved. Environment Agency, 100024198, 2018.”

END OF PERMIT