

Compliance Assessment Report

Report ID:
CAR_NRW0031997

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

Site	Newport Ceramic Works EPR/BP3532HX	Permit Ref	BP3532HX			
Operator/Permit holder	Kennametal UK Ltd					
Regime	Installations					
Date of assessment	08/08/2017	Time in	10:00	Out	13:30	
Assessment type	Site Inspection					
Parts of the permit assessed	Emissions to Air					
Lead officer's name	Green, Rebecca					
Accompanied by	Leakey, Antony, Collins, Andy					
Recipient's name/position	James Wham/ EHS Analyst	Date issued	10/08/2017			

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	
B1 - Infrastructure - Engineering for prevention and control of emissions	X	
C2 - General Management - Management system and operating procedures	A	
E1 - Emissions - Air	X	
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
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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

This meeting was arranged to discuss the continuing breaches of emission limit values (ELV) for particulates from emission point A6, the scrubber attached to the drying ovens. This started in December 2015, just after the small oven was moved next to the large oven.

Kennametal have tried various modifications to the system, but none have been successful. Monitoring over the full 11 hour process cycle showed that there is a significant peak in emissions about four hours after the process starts, lasting for about three hours.

Present at the meeting

Mike Williams, Senior Manager, Earthworks and Ceramics, Kennametal (K);

David Willis, Production Manager, K;

James Wham, EHS Analyst, K;

Lloyd Barrett, Maintenance Team Leader, K;

Tony Leakey (AWL), Technical Specialist PPC/RSR, Natural Resources Wales (NRW);

Andy Collins, Air Quality Specialist, NRW;

Rebecca Green (RVG), PPC Compliance Officer, NRW.

Agenda (not all items were discussed)

1. Introductions.
2. Process overview, oven No.2.
3. Abatement equipment at emission point A6
 - a. Description;
 - b. Maintenance procedures;
 - c. Maintenance history;
 - d. Manufacturer's comments and advice.
4. Results of Kennametal's internal investigations since September 2016.
5. Review of modifications carried out since September 2016.
6. Review of particulate emissions from emission point A6 since September 2016.
7. In-situ equipment inspection.
8. Findings, observations and comments.
9. AOB.

The discussions were wide ranging.

The conclusions were that the problem with the emissions might be because they are not particulates but fume or acid mist. The venturi scrubber may not be designed to remove these types of emission. Several potential alternatives were suggested, including mop head scrubbers, cold traps and candle filter mist/fume eliminators. Kennametal will need to contact equipment suppliers to determine which might be most effective.

In the meantime Kennametal should carry out some investigations to try to determine the nature of the emission. It would be useful to know the composition of the material that sublimes around the oven doors and in the pipework leading to the scrubber. This could be done by X-Ray Fluorescence (XRF), which would not give an exact composition, but could identify the elements present. They might also try to

identify the pH of the emission and to determine the temperature at which the individual components of the mixture sublime. Particle size distribution of the releases could also be determined to help select the most appropriate type of abatement.

Kennametal should also monitor the full cycle emissions from each oven separately. The full cycle monitoring carried out in June was with both ovens running simultaneously (the standard process). Monitoring each oven independently would show if they both show peak emissions at the same stage in the drying process. This may allow Kennametal to stagger start up of each oven, which would help to keep emissions within the ELV, but this is only feasible if the liquor in the scrubber does not have to be changed after each drying cycle and is a short-term measure. It would also be useful to try to measure the upstream temperature profile of the emissions.

Some short term measures to optimise scrubber performance were also discussed. These included introducing an air bleed into the small oven to reduce the vapour pressure and installing a larger capacity water pump in the scrubber so that the fan speed can be reduced without losing the shower curtain.

The introduction of the chemical sector Waste Gas Treatment BREF Conclusions and their associated mandatory AELs was briefly discussed. It is quite likely that present ELVs will be reduced. There is no timetable yet for their introduction, but it is likely to be within the next four to five years, with four years for implementation. Kennametal will need to consider this when taking any decisions about replacing equipment or changing operating procedures.

AWL and RVG will also discuss whether the early introduction of IED compliant monitoring is feasible and acceptable at this stage. This would allow Kennametal to take three 30 minute samples over the full process cycle, which may give a more representative measurement of the emissions.

There is a lot of work to be done to improve the particulate emissions from A6. The first things that should be done are -

- to contact equipment suppliers for their suggestions of suitable equipment;
- to monitor each oven separately during the full process cycle; and
- to identify the nature of the sublimate on the oven doors and in the extraction pipework.

NRW would like to discuss the results of the findings at another meeting later in the year.

END.

EPR Compliance Assessment Report

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Operator/Permit holder	Kennametal UK Ltd	Date	08/08/2017

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			
B1	X	Improve efficiency of abatement equipment either by modifying existing scrubber or replacing it with more suitable equipment.	03/11/2017
E1	X	Identify nature of emissions from ovens during operation. Determine whether more effective abatement equipment is available & suitable for this application.	03/11/2017

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. 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.