

	EPR Compliance Assessment Report	Report ID: DP3735NP/0246993			
This form will report compliance with your permit as determined by an NRW officer					
Site	Waen Anaerobic Digestion Plant		Permit Ref	DP3735NP	
Operator/ Permit holder	Biogen Waen Ltd				
Date	18/08/2015		Time in	10:00	Out 15:45
What parts of the permit were assessed	EMS / Odour Control				
Assessment	Audit	EPR Activity:	Installation	X	Waste Op
					Water Discharge
Recipient's name/position	Colin Williams / Grame Outridge				
Officer's name	Stuart Ross, Aled Zachary		Date issued	28/08/2015	

Section 1 - Compliance Assessment Summary					
This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). 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					Condition(s) breached
a) Permitted activities	1. Specified by permit	A			
b) Infrastructure	1. Engineering for prevention & control of pollution	A			
	2. Closure & decommissioning	N			
	3. Site drainage engineering (clean & foul)	A			
	4. Containment of stored materials	A			
	5. Plant and equipment	A			
c) General management	1. Staff competency/ training	A			
	2. Management system & operating procedures	A			
	3. Materials acceptance	N			
	4. Storage handling, labelling, segregation	N			
d) Incident management	1. Site security	N			
	2. Accident, emergency & incident planning	A			
e) Emissions	1. Air	N			
	2. Land & Groundwater	N			
	3. Surface water	N			
	4. Sewer	N			
	5. Waste	N			
f) Amenity	1. Odour	A			
	2. Noise	N			
	3. Dust/fibres/particulates	N			
	4. Pests, birds & scavengers	N			
	5. Deposits on road	N			
g) Monitoring and records, maintenance and reporting	1. Monitoring of emissions & environment	N			
	2. Records of activity, site diary, journal & events	N			
	3. Maintenance records	N			
	4. Reporting & notification	N			
h) Resource efficiency	1. Efficient use of raw materials	N			
	2. Energy	N			
KEY: C1, C2, C3, C4 = CCS breach category (* suspended scores are marked with an asterisk), A = Assessed (no evidence of non-compliance), N = Not assessed, NA = Not Applicable, 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 Total No Breaches is greater than zero, then please see Section 3 for details of 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 (e.g. 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 suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and normally completed within 14 days of an assessment.

In this document 'Natural Resources Wales' means the Natural Resources Body for Wales established by Article 3 of the Natural Resources Body for Wales (Establishment) Order 2012.

1.0 Scope of Audit

The anaerobic digestion plant (operated by Biogen Waen Ltd) was commissioned during the summer of 2014.

The permit contained a pre-operational condition 'POM1' and required that '*a finalised copy of the Environment Management System (EMS) shall be submitted to Natural Resources Wales for written approval prior to operations commencing on site*'.

The EMS was reviewed by Natural Resources Wales 30/06/14 and found to be satisfactory and therefore approved.

The plant has since become fully operational and established. The purpose of this audit was to review the implementation of the EMS and in particular the controls related to odour prevention and minimisation.

During the audit the Regional Operations Director and Biogen Environment Officer. The plant manager was on leave at this time.

2.0 Permit Conditions

The following permit conditions were audited;

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 if 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.*

1.1.4 *The operator shall comply with the requirements of an approved competence scheme.*

Odour

3.4.1 *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 Natural Resources Wales, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or there that is not practicable to minimise the odour.*

3.4.2 The operators shall;

- (a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to odour, submit to Natural Resources Wales for approved 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 Natural Resources Wales.

3.0 Audit Observations

Environmental Management System

Biogen (Group) operate an Integrated Management System and 'Biogen Waen Ltd' has been accredited to ISO 14001 since the plant became operational.

The EMS is an electronic/computer based system called "Activ" that holds the site's relevant procedures, including the permit itself. Site staff have access to the system via the onsite computer terminals. Maintenance records and daily check sheets are paper based and completed by site personnel (records held on site).

Maintenance checks and record keeping are periodically audited by Biogen's compliance team,

The Regional Operations Director and Biogen Environment Officer were present during the audit and demonstrated an excellent understanding of plant operations, the EMS and the environmentally critical controls. All procedures and documents requested were readily available. The site manager was on leave at the time of the audit.

It is our opinion that there are a suitable number of personnel on site to ensure permit compliance;

1 x Site Manager, 2 x Engineers, 1 x technician & 1x operator.

The new site manager is currently in the process of gaining a Certificate of Technical Competence in waste management. A site Engineer holds a Certificate of Technical Competence although the certificate was not subject to audit.

Due to the nature of anaerobic digestion, the plant operates 24hrs a day 7 days a week. Waste reception occurs 8am – 5pm Monday to Friday and during these periods the plant is fully manned. Out of hours there is a Duty Manager rota, whereby by a member of staff attends the site at weekends to ensure the plant is operating normally. Plant telemetry / controls (SCADA) and CCTV is accessible remotely via mobile phone 24hrs/day.

Alarms have been built into the system (to alert staff on duty), including CHP failure, site power loss and floods. In the event of an engine failure the flare will cut in automatically as required. This also raises an alarm. The site has an emergency generator to ensure biogas can be managed safely in the event of a power cut.

Odour Management

A site inspection of the operational areas (waste reception hall, tank farm and yard areas) identified no issues of concern. Housekeeping was to a very high standard, materials were stored appropriately, and plant and equipment appears to be maintained to a high standard.

No significant odours were noticed on site (external areas). There was a limited, localised odour from the biogas holder which has recently had its hatch replaced and the carbon filter (off gas) tested for efficacy. The filter was found to be operating effectively (media not exhausted).

It was confirmed that final digestate is only stirred immediately prior to offloading, although no issues with the tank going anoxic have been identified as a result of the practice. Regular emptying of the tank, pasteurisation of the digestate, and testing of residual biogas content as required by the PAS110 standard also help with this aspect. It was confirmed that all tankers are now back vented when being loaded to prevent and minimise any odours. A floating clay media "crust" was installed on the 01/05/15 to assist with odour control. No odours were noted around the final digestate tank at the time of audit.

The waste reception hall and fibre separation room are both under negative pressure, with extracted air passed through dedicated carbon filters to remove odour prior to discharge to atmosphere. Activated carbon becomes exhausted and requires periodic replacement with new media.

Accordingly, Biogen collect carbon samples for laboratory analysis to estimate the remaining lifespan of the media and organise renewal before odour 'breakthrough' occurs. Biogen report that recent testing shows that the media is operating effectively and does not yet require replacement.

Odour Management Plan (OMP)

The most recent version of the OMP (Version 2, 30/07/15) was obtained prior to the audit and has been reviewed by NRW. The plan was recently revised following a number of issues identified in Compliance Assessment Report ref. DP3735NP/0236528 dated 26/03/15

Following the latest revision, refresher training was provided to site staff on 31/07/15 (training record provided).

The OMP is comprehensive, and includes appropriate control measures and procedures to prevent and minimise emissions from plant operations. The OMP and associated procedures are held on the electronic system and

accessible by site staff.

The plan includes references to several associated procedures including;

- Pre-acceptance procedure for waste
- The procedure for safety checks on pipework and pressure release valves ('wessoes').
- Daily checks procedure (includes sniff testing) – **Records inspected**
- The procedure for odour abatement maintenance – **Records inspected**
- Complaints Procedure – **Records inspected**
- Accident Management Plan

Maintenance

There is an extensive list of daily checks on various aspects of the plant. This includes the basic operation of the carbon filters, building integrity and a perimeter odour assessment. Further checks are as follows.

Weekly checks include;

- The ammonia concentration in the surface water attenuation tank to monitor concentrations / trends. Typically harvested rainwater is used on site as part of the digestion process and not discharged to surface waters. Samples are collected and tested prior to discharge. Biogen area also testing for ammonia in drainage arising from the now demolished abattoir site. It was reported that ammonia is still being detected in this drainage system.
- The carbon filter abatement systems (main reception hall and separator building) are inspected for drops in flow via anemometer and also subjected to a sniff test on a weekly basis.

Monthly checks include;

- The operation of the high level tank alarms (Digester 1 &2, Raw Waste Buffer Tank, Digestate storage tank and pasteuriser).
- Flood alarms, reception hall, tank farm bunded area, fibre separator building and tanker loading point.
- The carbon filter serving the waste reception hall and separator building are subjected to ammonia and hydrogen sulphide testing (using RAE tubes)
- Wessoes pressure release valves (biogas) operation is checked monthly (previously 6 monthly)

Six Monthly checks include;

- Carbon filter media testing (testing frequency may vary depending on sample results).

It was reported that an electronic maintenance system is due to be added to the "Activ" management system from 01/09/15 – we welcome this development.

Spill Prevention / Emergency Procedures

We reviewed some of the procedures relating to spill prevention and containment on site. The site is stocked with spill kits at strategic locations for small spill containment, these kits are checked on a weekly basis and replenished where required. A copy of the site drainage plan is stored in the control room on site. Manhole keys are stored in both the control room and on the fence by the isolation penstock. A visual check of the clean water attenuation tank is carried out weekly to assess contamination and remaining capacity.

All Biogen site's plan and conduct an emergency drill at least yearly, usually involving a catastrophic loss of stored materials. No issues were identified in the last drill. An emergency contract with the local tanker company GEWS is maintained in the event of a large spill being detected.

4.0 Actions / Recommendations

The site is well managed and maintained by competent staff using an effective Environmental Management System.

Recommendation – ensure the pumps for the tank farm bund sump are suitably labelled to prevent the discharge of foul water to the attenuation tank.

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Operator/ Permit	Biogen Waen Ltd	Date	18/08/2015

Section 3- Enforcement Response	Only one of the boxes below should be ticked
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.	☐
In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.	☐
We will now consider what enforcement action is appropriate and notify you, referencing this form.	☐

Section 4- Action(s)			
Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.			
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 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 which 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 fulfill 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 (e.g. 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 and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information 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 twenty 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 the officer's line managers. 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.