

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

Site	Nantycaws Generation Plant EPR/LP3038SU	Permit Ref	LP3038SU		
Operator/Permit holder	Novera Energy Generation No.2 Limited				
Regime	Installations				
Date of assessment	25/09/2017	Time in	13:00	Out	15:00
Assessment type	Audit				
Parts of the permit assessed	1.1, 2.1, 2.2, 2.2.4, 2.2.5, 2.2.6, 2.3, 2.5, 2.12,				
Lead officer's name	Taylor, Richard				
Accompanied by					
Recipient's name/position	Kate Phillips/ Compliance Engineer	Date issued	02/10/2017		

### 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
C4 - General Management - Storage, handling labelling and Segregation	C4	2.5.1

**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.

<b>Number of breaches recorded</b>	<b>1</b>	<b>Total compliance score</b> (see section 5 for scoring scheme)	0.1
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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

Infinis Nantycaws Site inspection Monday 25<sup>th</sup> Sept 2017

Permit Number LP3038SU

Personnel present. Kate Phillips - Infinis Compliance Engineer, Andrew Jones - Infinis Field Services manager, Lee Denison - Infinis Field Technician, Lyndon Crew - Infinis Gas technician, Gerry Augood - Infinis landfill gas. Richard Taylor - NRW Inspector.

### 1. Site Update.

The site was last visited by NRW on 9<sup>th</sup> Dec 2015.

The gas engines are in place to burn landfill gas produced by the Nantycaws landfill site and convert this into electricity. The landfill site has not taken fresh waste since Dec 2016, and the gas produced by the site is on a long slow decline. There will be a point in future at which the Infinis permitted activities will become uneconomical to pursue. This is thought to be at the point where the output drops below 1000kW/hr. At present the site produces approximately 7,500kW/hr but this is diminishing. This situation will need to be constantly monitored with a view for the site to surrender their current permit to us. To do this, the Operator needs to apply for a permit surrender through NRW permitting pages.

<http://naturalresources.wales/permits-and-permissions/installations/apply-to-vary-change-a-permit-for-installations/?lang=en>

Engine No 1 has been out of service since August 2015. The unit has been mothballed until a decision is made about its future. No2 engine is still operational and was tested on the day. Both engines are Jenbacher J320's with a rated output of 1003kW each.

Engine details.

Engine	Make	Rated output	Current Output	Current LFG	Comments
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		kW	kW	usage m3/hr	
1.NGR:SN4727617488	Jenbacher J320	1003	0	0	Engine not used since August 2015 and is currently mothballed.
2.NGR:SN4727917483	Jenbacher J320	1003	726	459	Operational. Readings taken after flare switchover test and engine returning back to full efficiency.  Originally commissioned by Enderby Warren in 2001. Moved to Nantycaws and recommissioned in June 2006.

2. Site reported Air monitoring results and permit limits. The annual air quality results for 2017 were sent to NRW on 8<sup>th</sup> May 2017.

Year	Parameter	Permit Limit	Results
2017	Nitrogen Oxides (NOx)	650mg/m <sup>3</sup>	320 mg/m <sup>3</sup>
	Carbon Monoxide (CO)	1500mg/m <sup>3</sup>	1475 mg/m <sup>3</sup>
	Total Volatile Organic compounds (VOC's)	1750mg/m <sup>3</sup>	1669 mg/m <sup>3</sup>

All emission limits have been complied with and are within the uncertainty parameters. (Reference LFGN08)

### 3. Flare emissions testing

The permit held by Infinis does not extend to the landfill site flare which is held on a separate permit operated by Cwm Environmental (Permit CP3735PB). There is a close working relationship between Cwm and Infinis with the latter being contracted to manage the landfill gas collection infrastructure and operate the flare stack on behalf of Cwm who remain responsible for the permitted operation. We have included the annual flare stack results here as a comparison to the results observed on the day of the inspection. The switch over from gas engines to flare stack was witnessed. The flare was observed to reach 1000°C after approximately 20 minutes. The demonstration showed that the switchover works well

2017 monitoring results for the flare stack

Species	Average measured concentration mg/m <sup>3</sup>	Permitted limit

NOx	109	150
CO	31.2	100
Total VOC	2	10
SO2	83	n/a

Combustion temperature >1000°C.

The site has two flame arrestors. One for the main flare input and one for the pilot light. Both are checked regularly and the gas inlet temperature at the time of the audit was below 60°C which is within the manufacturers operating range.

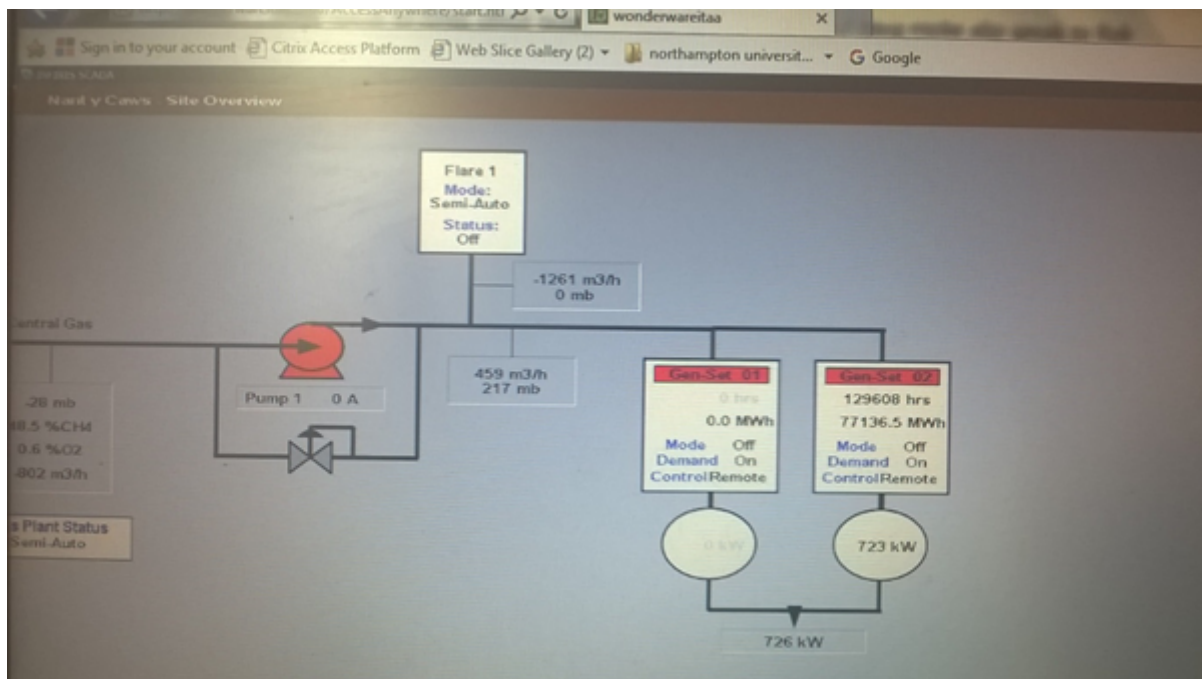
4. Flare stack run-hours – 22661.88 hours at the time of the inspection.

Booster run hours – 34442.83 hours.

#### 5. Gas Inlet Quality

A calibrated hand held gas analyser was provided by Infinis for measuring the inflow gas quality. The machine was hooked up to the landfill gas inlet pipe at the entrance to the compound. The readings at the time were compared to readings from the Infinis head office computer system and showed a strong correlation.

Substance	Reading	Head Office reading
Methane content	46.8%	48.5%
Carbon Dioxide CO2	31.3%	
O2	0.08%	0.6%
Suction/extraction pressure	33 mb	217 mb



Pic 1. Readings taken from head Office at Northamptonshire at the time of the inspection.

6. Refractory lining check. There was no observed refractory lining witnessed on the floor of the stack. No staining of the ground was observed.

7. Chemical/Oil stores Inspection. The oil and chemical stores are housed within a roofed compound. Drums were seen to be left open without lids attached. Containers within the compound were left to vent to atmosphere. The open sources contained

flammable substances. This breaches permit condition 2.5.1.

*'The Operator shall design, maintain, and operate all facilities for the storage and handling waste on the permitted installation such that there are no release to water or land during normal operation and that emissions to air and the risk of accidental release to water or land are minimised'*

**Action - NRW imposes a Cat 4 breach of this permit condition due to the increased risk of pollution from the compound due to not having lids in place over potential polluting sources.**

**note - No pollution was seen at the site on the day. The minimum Cat 4 breach reflects the risk of pollution, not the actual pollution.**

**Improvement recommendation - Site needs to ensure lids are in place over waste receptacles when not in use to ensure risks of pollution and fire are minimised.**



Pic 2. Chemicals/Oil store. Open vessels seen containing waste materials need to have lids attached when not in use to reduce the risk of pollution and fire.



Pic 3. Waste was stored on plastic bunds. Waste types need to be separated wherever possible. A general tidy up of the area is needed.

8. Fuel and waste oil tank.

Fuel and waste oil is stored in a proprietary double bunded steel tank. Pipework is stored within the bunded area and the system is enclosed to prevent rainwater collecting in the bund. The tanks are routinely inspected as part of the Infinis maintenance schedule. Dip stick readings are taken each day to record the levels. Collection is arranged on an ad hoc basis. Pipes are fed through the metal railings to be pumped to the collection lorry. EWC codes and paperwork is recorded in the office.

There was no evidence of liquid leaks or staining of the ground. No evidence of pollution seen at the collection point. The area was clean and tidy and a credit to the Infinis staff who work there – apart from the chem stores highlighted above.

## EPR Compliance Assessment Report

**Report ID:  
CAR\_NRW0032226**

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

Site	Nantycaws Generation Plant EPR/LP3038SU	Permit Ref	LP3038SU
Operator/Permit holder	Novera Energy Generation No.2 Limited	Date	25/09/2017

### 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			
C4	C4	Ensure lids are attached when not in use	02/10/2017

## 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.