

EPR Compliance Assessment Report

Report ID: 6086

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

Site	Carmarthen Animal Feed Mill			Permit Ref	BV966IV		
Operator/ Permit holder	ForFarmers UK Ltd						
Date	17 December 2015			Time in	10:00	Out	15:00
What parts of the permit were assessed	Energy and Water Efficiency (Operator Resource Efficiency)						
Assessment	Audit	EPR Activity:	Installation	X	Waste Op	Water Discharge	
Officer's name	Nick Jenkins & Guy Baskerville			Date issued	27/01/16		

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	N	
b) Infrastructure	1. Engineering for prevention & control of pollution	N	
	2. Closure & decommissioning	N	
	3. Site drainage engineering (clean & foul)	N	
	4. Containment of stored materials	N	
	5. Plant and equipment	N	
c) General management	1. Staff competency/ training	N	
	2. Management system & operating procedures	N	
	3. Materials acceptance	N	
	4. Storage handling, labelling, segregation	N	
d) Incident management	1. Site security	N	
	2. Accident, emergency & incident planning	N	
e) Emissions	1. Air	N	
	2. Land & Groundwater	N	
	3. Surface water	N	
	4. Sewer	N	
	5. Waste	N	
f) Amenity	1. Odour	N	
	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	A	
	2. Energy	A	

KEY: C1, C2, C3, C4 = CCS breach category (* suspended scores are marked with an asterisk),
A = Assessed or assessed in part (no evidence of non-compliance), N = Not assessed, NA = Not Applicable

Number of breaches recorded

0

Total compliance score
(see section 5 for scoring scheme)

0

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

Attendees

Graham Reith – Site Manager (Forfarmers)
Jeff Davies – Production Manager (Forfarmers)
Nick Jenkins – PPC Officer (Natural Resources Wales)
Guy Baskerville – PPC Officer (Natural Resources Wales)

Agenda

1. Introductions & overview of site operations
2. Actions from last visit
3. Operator Resource Efficiency
 - a. Energy
 - b. Water
4. AOB
5. Site tour

1. Introductions & overview of site operations

Guy Baskerville was introduced to the operator as the new regulating officer for the site. One of the objectives for the meeting was to provide Guy with an overview of the operations and to meet the operational staff. Guy is also the regulating officer for Wynnstay feed mill in Carmarthen. The main purpose of the visit is to undertake an Efficiency audit of the operator's energy and water use by trialling a method developed by NRW in the auditing of these subjects i.e. Operator Resource Efficiency (ORE).

Overview of site operations

On 2 March 2015 BOCM Pauls Limited was replaced on Companies House by Forfarmers UK Limited. The Companies House registration will remain unchanged i.e. 00062904 but the ultimate UK holding company (ForFarmers UK Holdings Limited) is now 7999325. There has also been a change to the registered address. NRW acknowledge the change in accordance with permit condition 5.1.5.1.

Forfarmers employs around 2,300 staff across 42 facilities in four countries and produces around 8.9 million tonnes of total feed with a revenue of €2.3 billion (2014). We discussed the operations at the site including the raw materials used and the processing required to manufacture around 100 different products. The operator also provided an overview of their commitment to sustainability and the proposed change of focus in the future of the business. This was clear in their Horizon 2020 campaign. Within the environment theme are the following objectives:

- a. 10% reduction in energy consumption (KWh) per tonne of feed produced compared to 2013
- b. At least 10% increase in kilometres per litre of fuel in transport
- c. Improvement in feed efficiency of an average 1% per year
- d. Reduction of zinc and copper in feed

2. Actions from last visit

The following table presents the actions and recommendations presented in the last CAR form (ref 5660).

Reference	Action/Recommendation	Deadline	Comments
A1	Undertake the actions specified in points 1 and 2 of CAR form 4291 relating to surface water drainage	07/08/14	A response was provided by the operator 05/08/14. COMPLETE
A2	Investigate the efficiency of their cyclone system to ensure they are operating within their designated conditions	End Nov 2014	The operator confirmed that the monitoring for the four emission points are well below the permitted limits of 50mg/m3. Evidence from annual monitoring substantiates this statement. COMPLETE
R1	Undertake an investigation into the quantity and quality of discharge to the s/w system	End Nov 2014	An assessment was made of the discharge 19/11/14 by ALS Environmental and a copy of which was presented at the meeting. NRW will

	from boiler and compressor blow down		assess the report and provide a response at the next opportunity. ONGOING
R2	Consider placing the relocation of their fuel storage as CAPEX project	End Nov 2014	The operator has been in discussions with the local authority (pre-application) with the intention of creating a new exit/entrance onto Cilfrew Industrial Estate. This will allow the operator to have a one way system of traffic around the site. In this proposal there is an intention to relocate the existing fuel storage tanks onto the east side of the installation. ONGOING
R3	Discuss any changes to the operation of the plant with NRW at the earliest opportunity	At next opportunity	ONGOING
R4	Undertake a BAT gap analysis of the conditions in the permit under 2.9 and the techniques outlined in their application	End Nov 2014	The operator provided an overview of the improvements it has made toward reducing sound levels onsite. NRW advised that the exercise undertaken 17 July 2014 had shown that the difference in sound levels produced by the installation on that day against the Background sound level were not large enough for an assessment to be made. Instead a calculation of the sound level at a location closer to the installation is required. NRW will consider revisiting this action during the summer 2016. ONGOING
R5	Repair damage to the tipping booth	End Nov 2014	The operator advised that the damage had been repaired but during the site tour additional damage had been identified. The operator has replaced the tipping booth wall with a number of panels instead of one sheet which allows sections to be removed instead of the whole partition. COMPLETE
R6	Install suitable measures to avoid future damage of the tipping booth	End Nov 2014	Lorry stops have been installed to avoid tippers reversing too far thus reducing the tipping angle and avoiding potential damage to the booth. COMPLETE

3. Operator Resource Efficiency (ORE)

Food and drink manufacturing businesses often use significant quantities of resources including raw materials, energy and water. Efficient use of these resources benefits the environment and also makes good commercial sense.

ORE audits allow NRW to make an assessment of the resource efficiency measures implemented at regulated sites. Making better use of resources enables operators to reduce costs, improve profitability and decrease their environmental impact. It can also provide a mechanism to demonstrate their environmental credentials to stakeholders such as customers, investors and staff.

To improve resource efficiency, operators should adopt a step-by-step approach, looking at the way resources such as materials and utilities are stored, used, recovered and disposed of.

ORE allows us to make an assessment as to whether operators have identified and implemented suitable measures to improve their resource efficiency but can also help identify areas where improvement can be made.

We will use the ORE scheme to:

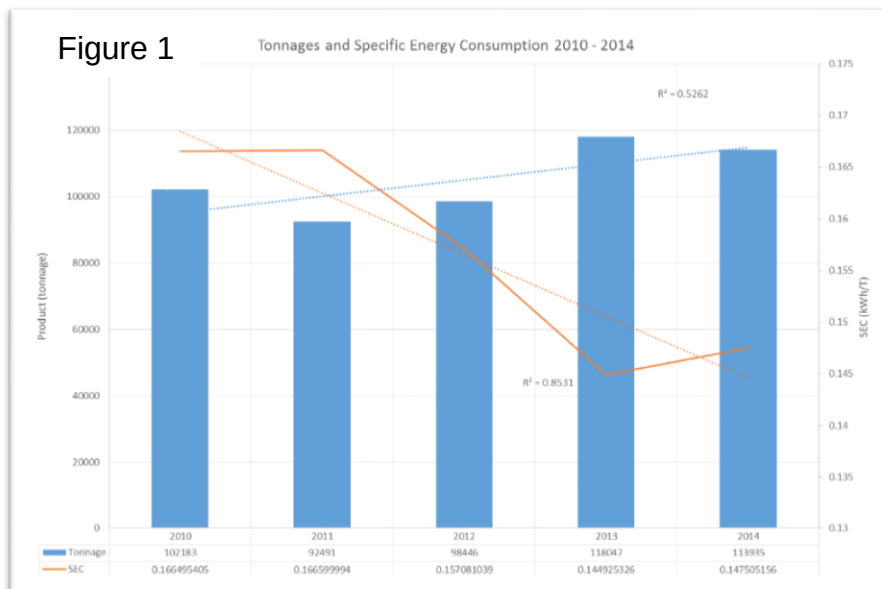
- Assess whether resource efficiency measures, as required by the site permit have been complied with;
- Identify any potential areas for improving resource efficiency;
- Allow operators to understand how they compare with other operators within their sector.

There are four ORE sections which contain a brief question set, benchmarks, guidance and examples. Each section will be scored 1, 2 or 3 with 1 being poor, 2 being acceptable and 3 being best practice. This will produce an overall average score for each section e.g. Water – An average score of 1 would require improvements to be made.

The intention of the audit was to go through the four sections but time did not allow us to do more than to assess water and energy. These are discussed below. The remaining two sections i.e. raw materials and EMS will be reviewed at the next opportunity.

Energy (permit condition 2.7)

ForFarmers use an automated system (DSL) for process control on their weighbridge, intake, dispensary, blending, press lines and out-loading bays. This provides real time control of their process but can also provide data which can be used in the reporting of efficiency data i.e. energy and water use. Although not completely integrated with the whole plant there are significant advantages of using such a system particularly with the measuring and reporting of data to NRW.



There is a downward trend in the Specific Energy Consumption since 2010 but an upward trend in the amount of product (See figure 1). The SEC is based on all energy usage (primary) at the site and not specific to electricity. This decreasing SEC against a higher production figure is encouraging.

Six questions and associated answers relating to energy efficiency are provided below. A summary of each section will be provided.

1) Do you measure Energy usage?	Scoring	Findings
Score - 3	1 – Yes basic/incoming for billing	The Operator manually takes meter readings at process area locations. These are recorded and transferred onto an Excel spreadsheet. These figures are then uploaded to populate the group usage figures (where trending is available) but also the annual submission to NRW. Electronic system available (DSL) but this only manages the usage at the grinders. Energy usage diagrams were shown with the heavy, medium and low and very low use processes identified using a colour scheme. 57% of energy is consumed at the four press lines. This is where Forfarmers should be focussing their efforts on reducing energy.
	2 – Some metering/sub metering	
	3 – Sub metering/trending/main energy users identified/mass balance	

2) Have you carried out an audit?	Scoring	Findings
Score - 3	1 – Yes > 2 years	Regular internal energy audits are carried out by the plant site manager and the process engineer. Every 12 months alternative plant managers across the ForFarmers company attend site to undertake audits of the plant where observations are raised and reviewed. External audits are carried out on a 3 year cycle with SGS.
	2 – Yes < 2 years	
	3 – Yes continually reviewing	

3) Have you developed a plan or improvement programme?	Scoring	Findings
Score - 3	1 – Limited, some work planned, not directed	Energy plan was shown for the Carmarthen site. 14 efficiency projects were identified and progress toward completion was provided. This plan is updated annually and is uploaded onto the European drive to share best practice. Horizon 2020 project identifies Corporate goals and these are integrated into site plan.
	2 – Corporate goals, not site enacted	
	3 – Corporate and site plan integrated, continuous improvement	

4) Do you or your organisation set KPI targets for energy efficiency?	Scoring	Findings
Score - 3	1 – Some, not really derived from any data	Corporate goal under Horizon programme is 10% reduction in energy consumption (KWh) per tonne of feed produced compared to 2013. Projections for energy usage were shown for other ForFarmers sites against a 2% reduction target. Operator believes that 2% target is stretching and that further investment in efficient technology at the plant will mean greater savings.
	2 – Corporate goals set for site	
	3 – Achievable stretch targets set & achieved	

5) Can you show real year on year reductions in energy use?	Scoring	Findings
Score - 2	1 – Some but no documentary evidence	Energy usage had shown a year on year reduction between 2010 and 2013 but an increase in 2014. The operator stated that a change in raw material can lead to increased friction in the process and therefore an increase in energy.
	2 – 1 year	
	3 – > 3 years	

6) Have you identified/implemented efficiency measures carried out maintenance, optimised production, used insulation where required for -	Scoring	Findings
Motors/Drives	1 – No	Forfarmers have an energy efficiency policy on the purchase of new drives/motors i.e. requirement to purchase IE3 motors. The plant uses heat recovery on the boiler blowdown (payback was within 6 months). Maintenance schedule for steam traps and the site manager is the 'Steam champion' for the ForFarmers UK. The operator has pioneered thermographic inspections at the plant and evidence of the tests were provided. Boiler is suitably sized for the operation. Site is under a 3 year change programme or the replacement of metal halide lighting. Fork lift trucks powered by fuel are being phased out to be replaced by electrical alternatives.
Boilers/Heat distribution	2 – Blockages/ Icing/ Leaks/ Loading	
Compressed air	3 – Variable speed drives/ High Efficiency motors	
Distillation/Drying/Evaporation	3 – Low NOx burners, heat recovery	
Score - 3	2 - Process control	
	3 – Yields vs. production volumes	
	2 – Pressure/Leaks/Dead sections	

Available score - 18
Actual score - 17
Percentage – 94%

Comments

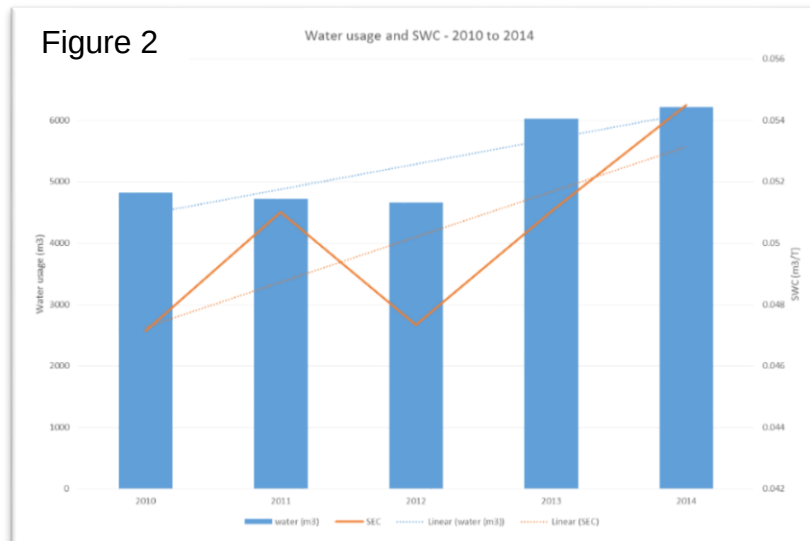
The operator has shown good evidence that energy at the site and across the company is considered a valuable commodity which needs to be resourced, reported and reviewed. The commitment is also very clear in the company's vision up to 2020 which has seen marked investment in the plant and across its sister plants in Europe.

It is recommended that more emphasis is placed on the DSL system as this is likely to improve the quality of the data reported to the group but also to NRW. We understand that the energy flow from the whole site is not linked to the DSL system but with the improvements discussed during the audit, we can see the opportunities.

d. Water

ForFarmers do not consider it appropriate to set water efficiency objectives for the installation due to the small amount of water that the process consumes. In 2014, the plant used approximately 6200 m3 of water. It is worth considering whether this figure is considered a small amount. The average 4 person house will generate approximately 165m3/year (based on consumer council for water), so the plant will use approximately 38 times as much as an average sized house.

Figure 2 below is water usage and Specific Water Consumption (m3/T) which shows an increase in total volume but also an increase in SWC.



The operator has undertaken a water efficiency audit in line with permit condition 2.4.1.2 which was submitted in 2015 and reviewed opportunities to reduce water consumption. The majority of water is used in two processes (based on 2014 data):

- 1) steam raising approx. 42.5% of total water
- 2) process mixing approx. 43.4% of total water – used to increase the product workability, consistency, quality and to kill bacteria as required under Feed Hygiene Regulations.

The remaining water is used as

domestic (13.4%) or vehicle wash (0.7%).

Improvements outlined in their 2015 water minimisation report identified the following: automated boiler water softening plant; training and insulation of pipes to reduce frost damage and leaks.

The DSL system is also designed to measure and record water usage at the site and as it does for energy, it provides real time control of their process.

Seven questions and associated answers relating to water efficiency are provided below. A summary of the section will be provided.

1) Do you measure water usage?	Scoring	Findings
Score – 2	1 – Yes basic/incoming for billing 2 - Some metering/sub metering 3 – Sub-metering/trending/main water users identified/mass balance	Town's water usage is measured manually on a weekly basis. Data is collected at 22:00hrs on a Sunday by operational staff and provided to the site manager, where it is inputted into a spreadsheet. Trending is then made available through Excel and shared amongst the group. High usage sites are challenged but also best practice can be shared. Usage is discussed at site management meetings. DSL system is also capable of measuring water usage across the plant and provide trending etc but the capabilities are not fully utilised. We compared spreadsheet and DSL water usage figures and the difference was approx. 2% (201T spreadsheet 205T DSL). We discussed the possibilities of using the DSL system instead of the current manual collection of data and the operator could see some advantages.

2) Main water users – Has a mass balance been done?	Scoring	Findings
Score – 2	1 – Some anecdotal evidence 2 - Some kit/areas identified, some measures in place 3 – Mass balance done	Flow diagram of where water is used in the process was available but no mass balance provided.

3) Have you carried out a Water Efficiency Audit?	Scoring	Findings
Score – 2	1 – Yes - >2 years 2 - Yes - <2 years 3 – Yes continually reviewing	Last external audit was carried out in 2007 by Envirowise. Operator advised that other site managers have visited the site but having viewed the reports there was no evidence that water efficiency was considered. Operator did advise that as a company they organise national meetings to discuss water efficiency. No evidence provided.

4) Have you developed a plan or improvement programme following any Audit work or from other drivers?	Scoring	Findings
Score – 1	1 – Limited, some work planned, not directed 2 – Corporate goals, not site enacted 3 – Corporate and site plan integrated, continuous improvement	Envirowise report was not available and therefore unable to assess whether improvement plan had been implemented following the audit. The report was completed in 2007 and no evidence was provided to show more up-to-date drivers to reduce water usage.

5) Do you or your organisation set KPI targets for water reduction?	Scoring	Findings
Have you signed up for the Federation House Commitment to reduction in water, FDF, Ripple Effect? (or something similar) Score – 1	1 – Some not really derived from any data 2 – Corporate goals set for site 3 – Achievable stretch targets set and agreed, some benchmarking	No KPIs at Corporate or site level. Some anecdotal evidence of reduction in domestic water usage rather than process i.e. waterless urinals, sensors on taps. The operator has not signed up to any water minimisation schemes.

6) Can you show real year on year reduction in water use?	Scoring	Findings
Score – 1	1 – Some (but no documentary evidence) 2 - 1 year 3 – > 3 years	Water usage increased year on year since 2013 (2015 figures yet to be reported) and this has been reflected in the specific water consumption (SWC) figures as they have increased accordingly. The increase in water was noted as an increase in steam injection. The operator advised that a specific level of water is required (2-3%) to reduce energy consumption through friction.

7) Have you identified/implemented efficiency measures?	Scoring	Findings
Score – 2	1 – No	ForFarmers highlighted that their consumption of water is small and therefore have not set any efficiency objectives for installation. Nevertheless, they do consider opportunities to reduce water consumption including: - Automatic blowdown system on the boiler - Heat exchanger on the boiler for reuse at hot well - Automated boiler water softening - Lagging of pipes - Trigger hoses on vehicle wash The operator advised they are constrained by the Feed Hygiene Regulations but also have an optimum volume of water to allow efficiency savings on the presses. We would encourage the operator to consider alternative methods for increasing efficiency at the plant through best practice.
	1 - Low volume/spray/trigger hoses	
	1-2 - Optimised cleaning regimes	
	2 – Optimised CIP/Basic ETP such as pH balances, screening and basic fat removal	
	2-3 Re-use of water/low grade effluent	
	2 – condensate water use	
	1-2 - Outside pipes lagged	
	2-3 – Counter flow technology	
	2-3 – Rainwater harvesting	
	3 – Effluent Treatment/Membrane technology/Reverse Osmosis Technology	
	3 – Lean Technology	

Available score - 21 Actual score - 11 Overall score – 52%
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Forfarmers are clear that water does not rate as high as energy in their objectives and this is clear in the audit and the scores produced following the assessment. The operator consumed approximately 6200m3 of water in 2014 (approximately 17m3/day) which is not insignificant but we agree that they are confined in some respects by the hygiene regulations set upon them (although these have not been reviewed in this assessment). We recommend that the operator continues to review alternative methods

for water efficiency savings through best practice and by considering the participation in relevant water schemes.

The use of the DSL system will also provide reports which are likely to be more accurate than the current method of manually collecting weekly readings and inputting these into a spreadsheet and we recommend that this is used more widely at the Carmarthen site.

4. AOB
Nothing raised

[END]

 Cyfoeth Naturiol Cymru Natural Resources Wales	EPR Compliance Assessment Report	Report ID: 6086
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This form will report non-compliance with your permit as determined by an NRW officer

Site	Carmarthen Animal Feed Mill	Permit	BV966IV
Operator/ Permit	ForFarmers UK Ltd	Date	17 December 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 a 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			
NA			

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 Natural Resources Wales (NRW) to fulfill its regulatory and monitoring functions and to maintain the relevant public register(s). 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.

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

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) 601 0987**.