

## Compliance Assessment Report

Report ID:  
CAR\_NRW0033761

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

Site	CWMRHYDYCEIRW QUARRY LANDFILL	Permit Ref	TP3835LV		
Operator/Permit holder	SI Green UK Limited				
Regime	Installations				
Date of assessment	06/08/2018 - 07/08/2018	Time in	N/A	Out	N/A
Assessment type	Report/Data Review				
Parts of the permit assessed	2.7.4				
Lead officer's name	Thomas, Ffion				
Accompanied by					
Recipient's name/position	Jo Congo/ MJCA consultants acting for SI Green	Date issued	07/08/2018		

### 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
B1 - Infrastructure - Engineering for prevention and control of emissions	A	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	A	
<b>KEY:</b> See Section 5 for breach categories, suspended scores will be indicated as such. <b>A</b> = Assessed or assessed in part (no evidence of non-compliance), <b>X</b> = Action only, <b>O</b> = 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

### **Review of Specification, CQA Plan and Stability Risk Assessment for Capping Works at Cwmrhydyceirw Quarry Landfill**

This compliance assessment report form has been completed following the review of the CQA Plan and Stability Risk Assessment (SRA) for permanent Capping works at CRC landfill.

The "Specification for the Engineering Requirements for the Capping of Cwmrhydyceirw Quarry Landfill" has been prepared by MJCA on behalf of SI Green, the site operator. The specification comprises a single document with the reference SIG/CW/LCH/3221/01 Specification May 2018. The document comprises the Specification together with three Appendices, including a Stability Risk Assessment and the Construction Quality Assurance Plan for the construction works. The submission was received by NRW on 18 May 2018 as per permit condition 2.7.4

Comments to the above named CQA plan and SRA were forwarded to MJCA by NRW on the 12/6/18. Response from MJCA was received via email on 4/7/18

The specification document above and the supplementary information has been reviewed by NRW (via subcontractors Geotechnology employed to undertake assessment due to limited resource within NRW at the time of submission) T

### **Background:**

SI Green applied for an Environmental Permit to authorise further landfilling in 2010, and though this was granted the site has accepted no wastes since. The landfill is now to be closed and the site is to be redeveloped for residential use, but before redevelopment works commence the waste mass present in part of the quarry is to be formally capped. The documents submitted for review are concerned with capping the entire waste mass in the quarry.

The documents describe a capping scheme which will cover the existing historic waste mass in the base of the quarry and provides the specification for the performance of the various engineering elements together with a formal means of validating the construction of the works. The documents also include a Stability Risk Assessment which has been submitted to demonstrate that the capping system design is stable in the long term.

When NRW's predecessor, EAW, issued the Permit for the site Geotechnology provided independent expert advice on engineering matters and accordingly has a good understanding of engineering issues at the site. Geotechnology has therefore been asked to review the submission to ensure that the capping scheme and the CQA procedures are acceptable and in line with current best practice. As part of the submission the SRA information has also been reviewed.

### **Scope of Submission:**

The submission reviewed comprises a series of 7 sections and three appendices:

Section 1 Introduction

Section 2 General Items

Section 3 Site Clearance and Preparation of Sub-grade

Section 4 Geomembrane

Section 5 Drainage Geocomposite

Section 6 Restoration Soils

Section 7 Drainage Ditch

Appendix A CQA Plan

Appendix B Chemical Testing Results

Appendix C Stability Risk Assessment

### **General Observations:**

The document has quite obviously been prepared by an organisation that is very familiar with EA/NRW Guidance and is experienced in producing Specifications and CQA Plans for landfill engineering. The Specification has been prepared in such a way that it not only provides the Regulator with the required design information but is also suitable for issuing to contractors for tendering and construction purposes.

### **Items that Required Further Information:**

The Specification (and the underlying design) is suitable for the proposed works and follows available guidance. However, several aspects of the design had not been explained in sufficient detail and previously Geotechnology had questioned the detail underlying certain design aspects:

1 The SRA does not fully explain why there is no requirement for a landfill gas pressure relief layer beneath the capping system. Supplementary information received from MJCA has now provided a suitable justification for the absence of this layer, with reference to gas monitoring results and calculated worst case gas pressures.

2 Water pressures acting on the upper surface of the capping system have to be controlled for the worst-case slope to have an adequate factor of safety. MJCA has provided supplementary information to justify the small saturated thickness assumed in the SRA calculations and these appear to be entirely reasonable. The additional information also includes a sensitivity analysis, and this reveals that even if the saturated thickness was to double the capping system would still retain a suitable Factor of safety.

3 MJCA has confirmed that in the event that actual interface shear strengths fall below expectation NRW will be informed as part of a redesign submission. However, it is not considered likely that this will be required.

4 The in-plane water flow capacity of the drainage geocomposite has been justified with further calculations and is shown to be sufficient.

5 Whilst MJCA required a very rapid turn-around of samples, the inclusion of a requirement to obtain data within 24hrs seems to be an unnecessary constraint on the works and could lead to compliance failures even if data is provided by off-site labs in a timely manner. MJCA has acknowledged that this relaxation is appropriate but has decided not to relax the specification.

### **Conclusion**

With this supplementary information in the form of an e-mail submission received 4/7/18 the

underlying design issues are now considered to be fully justified.

This being the case, the documents are considered to be acceptable and can be approved for construction.

Please note that the acceptance of this CQA plan by Natural Resources Wales does not mean that the assumptions, design, specifications, testing regimes will be suitable for any future infrastructure development at the site.

## **Recommendation**

The email containing the additional design information should be attached to the Submission so that these issues are clearly seen in any future review.

**Any compliance criteria not highlighted in the above summary should be considered as not assessed.**

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

## EPR Compliance Assessment Report

**Report ID:  
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Site	CWMRHYDYCEIRW QUARRY LANDFILL	Permit Ref	TP3835LV
Operator/Permit holder	SI Green UK Limited	Date	06/08/2018

### 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.

### 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			

## 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](mailto: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.