

Compliance Assessment Report CAR_NRW0041175

Permit being assessed: MP3036SS.

For: Whitehall Landfill, held by Cemex UK Materials Ltd

At: Old Port Road, Cardiff, Glamorgan, CF5 6AW.

Type of assessment carried out: Report/Data Review, Reason: Routine.

On 31/12/2022.

Parts of permit assessed: Annual Returns

NRW Lead Officer: Richard Taylor.

Report sent to: Helen Vonka, Principle Consultant Sustainability on 17/02/2023.

1. Summary of our findings (full details in section 4)

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C4 No impact	4.3.1(b)
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C4 No impact	4.3.2
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C4 No impact	4.2.1(b)
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C4 No impact	4.3.1(g)
E2 - Emissions - Land and groundwater	Ongoing (O)	3.2.3
E2 - Emissions - Land and groundwater	Ongoing (O)	3.2.3
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E2 - Emissions - Land and groundwater	Ongoing (O)	3.2.3

Result types are explained in more detail in the 'Important Information' section below.

Total number of non-compliances recorded	Total non-compliance score
4	0.4

How we use the non-compliance score to calculate your annual fee is explained in the 'Important Information' section below.

2. What action is required?

Criteria	Action needed	Complete by
G4	Improve reporting permit limit breaches	Already completed
G4	Follow permit schedule 6 reporting procedure	Already

Criteria	Action needed	Complete by
		completed
G4	Identify improvement targets and report for next year.	31/01/2024
G4	Assess the settlement behaviour of the landfill body for next years reporting.	31/01/2024
E2	Continue monitoring	Already completed
E2	continue monitoring	Already completed
E2	continue monitoring	Already completed
E2	continue monitoring	Already completed

Action criteria codes are listed in the 'Important information' section below.

3. What will happen next?

Any non-compliance we have identified and recorded on this form is an offence. It can result in criminal prosecution and/or suspension or revocation of your permit.

At this time, we do not intend to take any further action.

This statement does not stop us from taking additional enforcement action if further relevant information comes to light or offences continue.

4. Details of our assessment

Cemex Whitehall Quarry

Permit MP3036SS

Annual Reports Review for 2022.

Current Status – Site has a new Variation in place in Jan 2023. The last HRA report was submitted in Sept 2021 from Stantec. Site received the last load of waste October 2018. 11 new boreholes were drilled into the waste mass mid-2021 with approved CQA plans. These are monitored monthly for CH₄, CO₂, O₂, pressure, diff pressure and flow rate and numbered GF1 to GF11.

1.0 Quarterly Returns

Site are required to report data on a quarterly basis under permit condition 4.2.2. All Q reports were received on time throughout 2022.

2.0 Schedule 6 reports

Site reported the following during 2022.

- Q3 July 19th – BH12 AmmNi reading 0.91mg/l against a permit limit 0.39mg/l
- Q3 July 19th – BH1 AmmNi reading of 0.52mg/l against a permit limit 0.39mg/l
- Q3 July 19th – BH1 Naphthalene reading of 0.1µg/l against a permit limit of 0.05µg/l
- Q4 Oct 5th – BH13 AmmNi reading of 3.9mg/l against a permit limit of 0.39mg/l

- Q4 Oct 5th – BH13 Iron reading of 272µg/l against a permit limit of 200µg/l
- Q4 Oct 5th – BH13 Potassium reading of 23mg/l against a permit limit of 12mg

3.0 Annual Report

Groundwater –

Site reported 9 exceedances to groundwater limits. In addition to the above, Schedule 6 notification were not received for following permit limit exceedances.

- Naphthalene on 21st Apr 2022 at BH12 with a reading of 0.057µg/l against a permit limit of 0.5µg/l. (Note the current permit does not include this limit. The limit is set by the last HRA issued in Sept 2021 by Stantec).
- Naphthalene on 5th Oct 2022 – BH12 – 0.1µg/l against a permit limit 0.05µg/l
- Naphthalene on 5th Oct 2022 – BH13 – 1.16µg/l against a permit limit 0.05µg/l

Care must be taken in reporting exceedances to NRW on the quarterly reports. The 3 exceedances listed above were not reported in the quarterly summary report or as schedule 6 notifications in accordance with reporting condition 4.3.2. We have issued 2 separate non-compliances for these attracting the minimum 0.1 compliance points with an **Action** to check the lab results thoroughly for future reporting.

Action – A noncompliance to permit condition 4.3.1(b) for not notifying NRW of a breach of permit limit as agreed through HRA 2021 on 3 occasions during 2022.

Cat 4 – 0.1 points

Action – A noncompliance to permit condition 4.3.2 for not following the schedule 6 reporting format in informing NRW of permit limit exceedances.

Cat 4 – 0.1 points

Groundwater Quality

As above, the site exceeded the permit limits on 9 occasions from boreholes BH1, BH12 and BH13. These boreholes are all downstream of the site. Usually this would mean a straight noncompliance to the limits, but NRW take into account the whole site which includes any elevated levels of substances which may be migrating through the site from upstream sources. Also, the nature of the measurements needs to be considered. The concentrations are effectively governed by the amount of water they are measured with. The dryer the well, the higher the concentration. It can be seen that there is a correlation to the higher readings in the summer months against the drop off in readings when there is more rainfall comparatively during the Winter. In all the above exceedances, the readings correspond with low water levels. They are also downstream to points upstream which have high readings. This indicates that elevated levels may be moving through the site. Spikes of AmmNi seen in the middle to late 2022 correspond to readings seen 6 months earlier in the upstream boreholes. High potassium corresponds with high levels from upstream. The high iron measurement of BH15 in October could indicate that a flow of iron rich groundwater started to pass under the site after July when the measurements were <0.025mg/l and was measured at >5.0mg/l in October at the same time as being measured at 10mg/l at BH13 and 0.1mg/l at BH3 downstream. Likewise with Naphthalene. Upstream borehole BH15 produced 0.146µg/l in October at the same time as BH5, BH12 and BH13 produced 0.1µg/l, 0.1 µg/l and 0.116 µg/l respectively.

Therefore, as a whole picture it can be seen that it is likely that the downstream readings for Potassium Iron, naphthalene, and AmmNi are affected by migrating substances which originate upstream and are external

to the site but are migrating slowly through the site. Also, that downstream readings are likely to be more concentrated after periods of dryness.

NRW will list the readings as a breach of permit limits but not apply a noncompliance score for groundwater readings of the above.

Action – Site breached permit limits for AmmNi during 2022 on 3 occasions from downstream boreholes. Upstream boreholes indicated a likely offsite causal effect resulting in a breach of permit limits with mitigating circumstances resulting in a non-scoring noncompliance to pc3.2.3.

Listed non-scoring noncompliance – 0 points

Site breached permit limits for Naphthalene during 2022 on 4 occasions from downstream boreholes. Upstream boreholes indicated a likely offsite causal effect resulting in a breach of permit limits with mitigating circumstances resulting in a non-scoring noncompliance to pc3.2.3.

Listed non-scoring noncompliance – 0 points

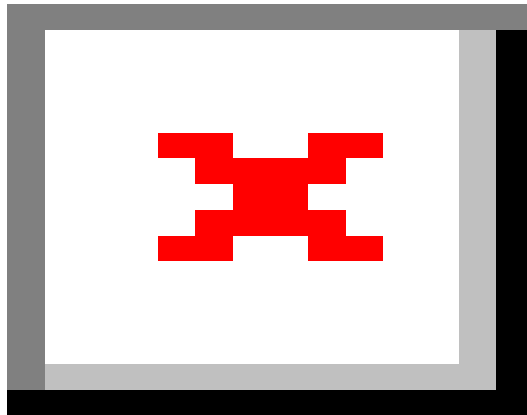
Site breached permit limits for Iron during 2022 on 1 occasion from downstream boreholes. Upstream boreholes indicated a likely offsite causal effect resulting in a breach of permit limits with mitigating circumstances resulting in a non-scoring noncompliance to pc3.2.3.

Listed non-scoring noncompliance – 0 points

Site breached permit limits for Potassium during 2022 on 1 occasion from downstream boreholes. Upstream boreholes indicated a likely offsite causal effect resulting in a breach of permit limits with mitigating circumstances resulting in a non-scoring noncompliance to pc3.2.3.

Listed non-scoring noncompliance – 0 points

Map of monitoring points for 2022. From mid-2021 new boreholes have been drilled into the waste mass. The groundwater flow is generally from the NW to SE direction meaning that upstream boreholes are an indicator of downstream borehole quality in the future.



4. Gas Monitoring

7 perimeter wells are monitored for Methane and CO₂ percentages. Readings for 2022 were within the permit limits.

!! new wells were installed within the inert waste mass in 2021 and are monitored for CH₄, CO₂, O₂, pressure, diff pressure and flow rate. No permit limits apply.

5.0 Permit Condition 4.2.1 Reports

Site submitted their annual report to satisfy the permit condition. The submission has been evaluated against the permit requirements as follows.

- (a) a review of the results of the monitoring and assessment - **condition satisfied.**
- (b) where the operator's management system encompasses annual improvement targets, a summary report of the previous year's progress against such targets. **No improvement targets have been submitted. Site should consider setting improvement targets for the site based on the management system i.e., reduction in ELV exceedances. Please ensure this is submitted in next years report.**

Action – A noncompliance to pc 4.2.1(b) is issued where site have not reported on improvement targets and progress against the targets.

Cat 4 – 0.1 point

- (c) the annual production/treatment set you in schedule 5 table S5.2 – **Condition satisfied.**
- (d) details of any contamination or decontamination of the site which has occurred. **Condition satisfied.**
- (e) the topographical surveys required by condition 3.6.3 other than those submitted as part of a CQA validation report; **Condition satisfied; Site topographical survey results enclosed in the Annex.**
- (f) the volumetric difference (reported in cubic metres) between the most recent topographical survey and

the previous annual topographical survey i.e., the additional volume of the landfill void that is occupied by waste; **Not required as the landfill is closed to new waste input.**

(g) an assessment of the settlement behaviour of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys. **Not received. A settlement behaviour assessment would be beneficial in evaluating the behaviour of the landfill mass to enable transition into aftercare. Please ensure this is submitted in next years report.**

Action – A noncompliance to pc4.2.1(g) is issued for site not assessing the settlement behaviour of the landfill body.

Cat 4 – 0.1 point

(h) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey; **Not required.**

(i) a summary of the WAC compliance testing undertaken in the period. **Not required.**

6.0 Permit Issues

- NRW received No complaints against the site in 2022.
- Site have received 0.4 compliance points in 2022 placing the site as a Band B performer.

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End.

If you have any queries about this report, or to discuss completion of any actions, please contact the NRW Officer named above.

Important information

Legal status of this report

Your permit is issued to you under the Environmental Permitting Regulations. You have a responsibility to comply with the conditions of your permit and prevent pollution/harm of the environment. You must also ensure that you comply with any other relevant legislation that may apply to your site's operations.

This report explains the findings of our assessment and any action you are required to take. We categorise non-compliance using our guidance for assessing non-compliance at regulated sites.

When we find potential non-compliance/s we will normally give you advice on how to maintain compliance.

To correct non-compliance, we may:

- require you to take specific actions
- issue a notice
- review the conditions of your permit.

Any advice and guidance we give will be without prejudice to any other enforcement response that we consider may be required.

Assessment results and non-compliance categories (used in section 1):

Assessment result	Description
Assessed (A)	Assessed or assessed in part, no evidence of non-compliance found
Action only (X)	Action only relating to the activity assessment
Ongoing (O)	Ongoing non-compliance, not scored

Non-compliance category	Description	Score
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property	60
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property	31
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property	4
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property	0.1

How we use assessment scores

The number and severity of non-compliances recorded in a year will affect your annual subsistence fee the following year. A non-compliance factor is added to your site's Operator

Performance Risk Appraisal (OPRA) score when we calculate your fee to reflect the additional resource we use to assess permit compliance.

What are suspended scores?

In line with our guidance, we may suspend scores for up to six months to allow time for remedial action to be taken. Suspended scores will be re-instated if the action is not completed.

Full list of Industry and Waste action criteria (used in section 1 and 2):

A: Permitted activities

- A1 Specified by permit

B: Infrastructure

- B1 Infrastructure – Engineering for prevention and control of emissions
- B2 Infrastructure – Closure and decommissioning
- B3 Infrastructure – Site drainage engineering (clean and foul)
- B4 Infrastructure – Containment of stored materials
- B5 Infrastructure – Plant and equipment

C: General management

- C1 General management – Staff competency/training
- C2 General management – Management system and operating procedures
- C3 General management – Materials acceptance
- C4 General management – Storage, handling, labelling and segregation

D: Incident management

- D1 Incident management – Site security
- D2 Incident management – Accidents, emergency and incident planning

E: Emissions

- E1 Emissions – Air
- E2 Emissions – Land and groundwater
- E3 Emissions – Surface water
- E4 Emissions – Sewer
- E5 Emissions – Waste

F: Amenity

- F1 Amenity – Odour
- F2 Amenity – Noise
- F3 Amenity – Dust/fibres/particulates and litter
- F4 Amenity – Pests/birds and scavengers
- F5 Amenity – Deposits on road

G: Monitoring and records, maintenance and reporting

- G1 Monitoring and records, maintenance and reporting – Monitoring of emissions and environment
- G2 Monitoring and records, maintenance and reporting – Records of activity, site diary/journal/events
- G3 Monitoring and records, maintenance and reporting – Maintenance records
- G4 Monitoring and records, maintenance and reporting – Reporting and notification to Natural Resources Wales

H: Resources efficiency

- H1 Resource efficiency – Efficient use of raw materials
- H2 Resource efficiency – Energy efficiency

Enforcement response

Any permit condition non-compliance is an offence and we may take legal action against you. Action we take can include prosecution, serving a notice on you and/or suspension or revocation of your permit. See our Enforcement and Sanctions Guidance for further information.

Data protection notice

You should make sure that anyone named in this report knows that the information it contains will be processed by Natural Resources Wales to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s).

We may also use and/or disclose the report in connection with:

- offering or providing you with our literature or 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
- assessing customer service satisfaction and improving our service
- Freedom of Information Act or Environmental Information Regulations requests.

We may also pass it on to our agents or representatives to do these things on our behalf.

Disclosure of information – this report will be available to view on-line

If you think this report contains commercially confidential information that should not be placed on our public register, you must contact your local Natural Resources Wales office within **fifteen working days** of receiving this report, using the contact details in the accompanying email or letter. You must give a full explanation of why it should not be added to our public register, including specifying which information is commercially confidential. We will assess your request and respond to you within 20 working days to let you know if we agree to your request.

What do I do if I disagree with the report or have a complaint?

If you disagree with this compliance assessment report, you should contact the lead officer without delay to discuss your concerns.

If you are unable to resolve the issue with the lead officer or their line manager you should contact our Customer Contact team on 0300 065 3000 (Monday to Friday 08:00 – 18:00), or email enquiries@naturalresourceswales.gov.uk for details of how to raise your dispute further through our Complaints and Commendations procedure.

If you are dissatisfied with our response, you can contact the Public Services Ombudsman for Wales by phone on 0300 7900203 or by email at ask@ombudsman.wales

Welsh Language Standards

We are committed to establishing Natural Resources Wales as a naturally bilingual organisation. We will provide compliance reports in your preferred language.