

Compliance Assessment Report CAR_NRW0044954

Permit being assessed: YP3937SH.

For: Amex Park, **held by:** Mekatek Limited

At: Llanstephan Road, Johnstown, SA31 3NF.

Type of assessment: Site Inspection,

Reason: Routine.

On: 19/07/2024 between 13:10 and 16:00.

Parts of permit assessed: Site Management, Operations, Emissions and Monitoring, Information..

NRW Lead Officer: Alex Bowder.

Report sent to: Daniel Lewis, Technical and Compliance Director, on 13/08/2024.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR1A - Installations - Management - General Management	Assessed (A)	
IR2A - Installations - Operations - Permitted activities	Assessed (A)	
IR2B - Installations - Operations - The site	Assessed (A)	
IR2C - Installations - Operations - Operating techniques	Assessed (A)	
IR3A - Installations - Emissions and monitoring - Emissions to water, air or land	Assessed (A)	
IR3C - Installations - Emissions and monitoring - Odour	Assessed (A)	
IR3D - Installations - Emissions and monitoring - Noise and vibration	Assessed (A)	
IR3E - Installations - Emissions and monitoring - Monitoring	Assessed (A)	
IR3F - Installations - Emissions and monitoring - Pests	Assessed (A)	
IR4A - Installations - Information - Records	Assessed (A)	

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

Total non-compliances recorded	Total non-compliance score
0	0

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?

No action required.

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

This Compliance Assessment Report (CAR) details the comments of Natural Resources Wales (NRW) Officers for the site inspection conducted on 19 July 2024 at Amex Park, Llansteffan Road, Johnstown, Carmarthen SA31 3NF for activities held by Mekatek Ltd (the operator) under the environmental permit EPR-YP3937SH.

Introduction

The visit purpose was to conduct a general inspection of site activities listed on the operator's environmental permit by Officer Alex BOWDER. A partial audit of the effluent treatment process was conducted looking at the measures implemented to achieve compliance with emission limits to the permitted discharge point. A further focus was on measures implemented to effectively control the anti-foam additive used in the process.

There were no non-compliances recorded against the operator's permit conditions on this inspection.

Attendees

- Alex Bowder - Senior Regulation Officer, NRW
- Technical and Compliance Director, Mekatek Ltd

The operator is in the process of sourcing a new Senior Compliance Officer.

Permit Overview - EPR-YP3937SH/V007

The installation is located on the industrial estate Amex Park based on the site of a previous dairy. Its infrastructure and wastewater treatment works have been adapted and modified to treat industrial waste effluents. Removed solids are sent for disposal to landfill and the treated effluent is discharged into the River Tywi.

Environmental Waste Permit - EPR/BP3098FC

The operator holds a second environmental permit that sits within same permit boundary as the IED

activities, which is an Environmental Permitting Regulations (England and Wales) 2016 waste transfer station operation. Activities under this permit take place within the same site boundary but with distinct areas, waste streams, and treatment methods. The Officer mentioned how any wastes transferred between these work activities/areas must be noted via waste transfer note documentation to create an audit trail of materials movement as required by Duty of Care legislation. It was asked about the action taken if an unwanted or unpermitted waste stream is identified within a load; this is dealt with in-line with the operational rejection procedure.

Permit Variation

The operator voiced its intention to consolidate the two respective IED and EPR waste permits going forward. The plan is to submit an application that requests the removal of the asbestos transfer station activity and potentially move the emission point W1 further along the Tywi.

Improvement Condition Programme - Waste Treatment BREF

In April 2023, the operator's permit was varied following the publication of the revised Best Available Techniques (BAT) Reference. The Officer raised points around the Improvement Condition requirements following the publication of the revised BAT in-line with permit Condition S1.3 (IC25 - 35). There are no outstanding actions remaining.

Emission Points

The permit has one emission source point to water listed as **W1** for treated liquid effluent from the biological treatment plant and roof surface waters via the treatment plant. There was a previous emission point to air listed as A1 for the boiler plant and stack, which has since been removed and has no reporting requirements.

The main environmental risks from permitted activities are:

- Storage and application of hazardous and chemical substances
- Emissions to land and water
- Effluent discharge to sensitive receptor

Prior to the visit the Officer requested all procedural/maintenance documents that cover environment management systems for the effluent treatment plant (ETP), accompanied with details regarding the new bacteria used in the biological treatment process. The following documents were submitted by the operator:

- De-Nitrifying Microbial Concentrate i1
- De-Nitrifying Microbial Concentrate Liquid v1
- AmphiPure 33 Sol – Powder i1
- AmphiPure F33 Sol i1.3
- SOP03 Monthly sample prep and collection
- W1 Data management & reporting procedure

Inspection Commentary

At 13:20 Officer BOWDER arrived at the site office and signed in where he was met by the operator's Compliance Director. In the office, an overview of the visit purpose was relayed with discussions regarding the site's compliance history and recent reported incidents. Procedures were examined and processes questioned with regard to the various site activity areas, effluent treatment, and sampling & monitoring regimes.

Following the discussion in the office, a site tour was conducted looking at the various process activities. This included the: (i) oil storage and separation area, (ii) waste transfer station, (iii) effluent treatment plant (storage tankers, DAF, plant chambers), and (iv) W1 emission point.

Oil treatment and storage

The recovery and disposal of waste oils and oil/water mixtures is carried out in the free oil separation area. Wastes are delivered to the site by road tanker from received from customer

sources such as interceptor contents and gully washings, for instance. Free oil/water mixtures are discharged to the free oil separation tanks where the oil is separated by gravity.

Oils are separated using an ultrafiltration unit. Oil is then stored in secure IBCs on site for around six months to naturally separate the oils from liquids. The infrastructure in the area is built to industry standard specifications and was in decent condition displaying no signs of weakness or fracture. There were no issues noted with the drainage at the time of inspection.



Image 1 – showing oil storage and separation area, taken on 19 July 2024

Monthly Composite Sampling

The operator conducts composite samples of the effluent where a portion of the wastewater is sampled over a determined period. Sampling is taken into a container until a maximum volume is reached giving a representative sample of for the period recorded for. The bottled sample is then transferred for refrigeration ready for collection and offsite testing via a courier - this process is detailed in procedure document *SOP03*. It was discussed how the courier follows site procedures with regard to collection to ensure the accuracy and reliability of results.

The operator conducts checks three times day for odour or visual abnormality at the W1 emission point. If any odour, abnormal discharge, or excessive emission limit value exceedance is detected, the site has to ability to switch the effluent plant to recirculation to prevent any further effluent being discharged. This allows for investigation into the source of the potential issue.

The lab on-site conducts in-house analysis testing of materials received to determine its composition and infer the EWC code.

Waste Transfer Station

Activities in this area are undercover within a unit and benefit from a sealed drainage system. Waste materials enter the unit via an inspection bay and are sorted / segregated into the appropriate waste streams ready for removal from site. There is CCTV coverage of the various bays accessible via various IT mediums. It was mentioned how the unit's drainage system can be isolated from joining primary network is there was a containment issue or spill.

A unit exists for plastic granulation, however, that was non-operational at the time of inspection. It was noted that there was no asbestos transfer station activity.



Image 2 – showing bays inside the transfer station unit, taken on 19 July 2024

Borehole Abstraction

The site has a water abstraction licence that permits two boreholes on site. The abstracted water is used for onsite processes such as the hydraulic loading to the effluent plant to keep levels stable. This has annual reporting requirements of the amount abstracted.

Effluent Treatment Plant

The Officer investigated the site's effluent processing from start to finish looking at the various treatment stages of the wastewater before being discharged to the river Tywi. Once the wastewater has been through the various stages of the plant, the treated effluent is pumped to a treated effluent tank where it is continuously monitored to ensure it meets the correct specification and pre-set values. This is before being released to a final effluent sump prior to discharge via a pipeline to the Afon Tywi. If the effluent does not meet the correct specification and pre-set values, it is pumped back to a balance tank for further treatment.

Tanks 5, 6, 8, and 9 are located sequentially situated on an impermeable surface with bunded edges, as seen in image 3. There are two filter beds present in this area of the site – it was discussed how maintenance is done annually to turn the surface stones to counter the organic growth and optimise the filtration mechanism. This area is also on impermeable surface with bunded edges for containment. The final stage of the treatment in the humus chamber allows the removal of any last remaining solid waste particles.

The operator reiterated that if there is an issue detected with its effluent or a failing process on site, the plant has the capacity to be shut off and run on recirculation. As there is not a continual input stream to the plant, this gives an element of control dependent on how much effluent is in the system.



Image 3 – showing tanks 5, 6, 8, and 9 on the left, taken on 19 July 2024

Ammonia as Nitrogen

Officer BOWDER raised the compliance issue surrounding the site's exceedance of nitrogen to emission point W1 in quarters 3 and 4 of 2023/24. To address this, the operator investigated methods to better denitrify its effluent involving changes to the bacteria strains used in the biological treatment.

The operator detailed how it has begun exclusively using Tank 9 for denitrification of the effluent and associated clarifiers. A combination of liquid and powdered bacteria product is dosed to optimise the microbial water treatment quality. Since the reported N exceedances of last year, there have been no further instances of levels reaching emission limit value, and monitoring has determined that levels were compliant in Q1 (January - March) of 2024. Q2 monitoring returns will be assessed independently of this assessment.

Officer BOWDER inspected the Dissolved Air Flootation (DAF) unit with associated storage vessels for phosphate, coagulant polymer, and sodium hydroxide - this area is afforded with an impermeable surface. Then proceeded to the sludge filter cake production area - this process will be examined further on future inspections.

It is noted that the non-hazardous industrial effluents are treated in the biological treatment plant. Materials shipped off site under EWC 19 08 01 are stated to be a mixture of primary screenings and de-watered sludges from the primary and secondary clarification process on the effluent plant operation.



Image 4 – showing the DAF unit and chemical dosing vessels, taken on 19 July 2024

Foam Incident - 28 June 2024

On 28 June 2024 a report was sent to our Incident Communication Centre (ICC) detailing a foam substance discharging into the River Tywi from the outfall permitted emission point. NRW contacted the operator requesting urgent investigation into the matter, CCTV footage of the outfall at the time of the report and emission sampling results for the period. The operator conducted internal investigation and reported back to NRW in a timely manner.

During the inspection a discussion was had around how foam from effluent can sometimes appear in the final discharge to the Tywi. This may occur as a result of the organic matter in the effluent and/or aeration as it passes through the stages of the ETP. Foam can indicate a cleaner effluent from the operator's treatment process despite looking visually abnormal and would not necessarily be considered a polluting material. Furthermore, foam can be exacerbated by the level of drop from the outfall to the rocks on the bank of the Tywi at varying states of the tide.

Antifoam

An anti-foam additive is injected into the treated final effluent prior to discharge to disperse bubbles in the foam; this activity was added to the permit in 2018. In this instance of the foam witnessed on 27 June, this was caused by an intermittent fault on the operator's anti-foam dosing system. This contributed to the higher level of foam being seen in the discharge, which the operator has since corrected and implemented measures to monitor as part of its routine inspection.

The operator identified that, overtime a sediment layer would develop on the surface of the antifoam liquid within the vessel, which affected the proper dosage of antifoam to be injected into the effluent. This was attributed to the root cause of the foam witnessed on 27 June. The operator has since implemented a stirring mechanism within the vessel set on a timer to prevent layers from forming and interfering with the dilution of the antifoam additive and pumped final effluent.



Image 5 – showing the antiffoam dosing system housed in a unit, taken on 19 July 2024

W1 emission point outfall

The Officer walked outside of the permit boundary down to the outfall point on the Tywi. The operator detailed how it had recently erected fencing above the outfall along the public footpath to stabilise the walk path perimeter. No odour or discolouration was witnessed at the outfall during the time of inspection. Based on the results submitted by the operator, in Quarter 1 of 2024 (January to March) the discharge was compliant with all emission limit parameters in the permit.



Image 5 – showing permitted discharge point W1 to the River Tywi, taken on 19 July 2024

Officer returned to the office for an inspection summary detailing listing any action requirements and NRW's regulatory expectations going forward.

Left site at 16:00.

Alex Bowder

Senior Officer - Southwest Wales Industry Regulation

Alex.Bowder@cyfoethnaturiolcymru.gov.uk

END OF REPORT

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.

If your assessment result in Section 1 is suspended, what does this mean?

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 compliance criteria (used in section 1 and 2):

1. Management

- IR1A – General management
- IR1B – Finance (only applicable to Landfill)
- IR1C – Energy efficiency
- IR1D - Efficient use of raw materials
- IR1E - Avoidance, recovery and disposal of wastes produced by the activities
- IR1F - Multiple operator installations

2. Operations

- IR2A – Permitted activities
- IR2B – The site
- IR2C – Operating techniques
- IR2D – Technical requirements
- IR2E – Improvement programme
- IR2F – Pre-operational conditions
- IR2G – Landfill engineering (only applicable to Landfill)
- IR2H – Waste acceptance (only applicable to Landfill)
- IR2I – Leachate levels (only applicable to Landfill)
- IR2J – Closure and aftercare (only applicable to Landfill)
- IR2K – Landfill gas management (only applicable to Landfill)

3. Emission and Monitoring

- IR3A – Emissions to water, air or land
- IR3B – Emissions of substances not controlled by emission limits
- IR3C – Odour
- IR3D – Noise and vibration
- IR3E – Monitoring
- IR3F – Pests
- IR3G – Air quality management plans
- IR3H – Monitoring for the purposes of the Industrial Emissions Directive (this heading includes Large Combustion Plants)
- IR3I – Fire

4. Information

- IR4A – Records
- IR4B – Reporting
- IR4C – Notification

Enforcement response

Any non-compliance with a permit condition 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 twenty 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 to 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.