Compliance Assessment Report CAR_NRW0046411

Permit being assessed: LP3030XA.

For: Cardiff Energy Recovery Facility, **held by:** Viridor Trident Park Limited

At: Trident Park, Glass Avenue, Cardiff, CF24 5EN.

Type of assessment: Site Inspection,

Reason: Routine.

On: 12/12/2024 between 09:30 and 12:00.

Parts of permit assessed: 1.1.1 and 2.3.13 and 3.1.2 and 3.2.1 and 3.6 and 4.2.2.

NRW Lead Officer: Geraint Harris.

Report sent to: Plant Manager, Plant Manager, on 21/02/2025.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR2C - Installations - Operations - Operating techniques	Action only (X)	
IR1D - Installations - Management - Efficient use of raw materials	Action only (X)	
IR1C - Installations - Management - Energy Efficiency	Action only (X)	
IR1E - Installations - Management - Avoidance, recovery and disposal of wastes produced by the activities	Action only (X)	
IR3A(2) - Installations - Emissions and monitoring - Emissions to air	Assessed (A)	
IR3A(1) - Installations - Emissions and monitoring - Emissions to water	Assessed (A)	
IR3E - Installations - Emissions and monitoring - Monitoring	C3 Minor	3.6.1.(a)
IR4B - Installations - Information - Reporting	Assessed (A)	

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

Total non-compliances recorded	Total non-compliance score
1	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
IR2C	Action 1: In addition to implementing Inconel-clad membrane walls in the first pass sidewalls and front wall, what other additional measures to prevent or minimise catastrophic boiler tube failures have been considered, including more extensive use of Inconel cladding, etc.. and why have these not been taken forward? Written response required by 28th March 2025.	28/03/2025
IR1D	Action 2: Please submit your latest efficient use of raw materials review by the 28th of March 2025.	28/03/2025
IR1C	Action 3: Please submit your latest efficient use of energy review by the 28th of March 2025.	28/03/2025
IR1E	Action 4: Please submit your latest avoidance, recovery and disposal of wastes action plan by the 28th of March 2025.	28/03/2025
IR3E	The validity of the valid calibration range shall be evaluated by the plant owner on a weekly basis (Monday to Sunday) in accordance with BS EN 14181	Already completed

Compliance 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

Trident Park Reporting Review and Compliance Assessment

Q2 Monitoring Returns

The 2024, Q2, monitoring returns have been received and assessed. All parameters were found to be compliant. However, during this reporting period, NRW received a Schedule 5 Notice. This is related to elevated VOC emissions as a result of a boiler tube leak which occurred at 0300h on line 1. The emissions data shows the plant in shutdown from 03:00 with no reportable emissions data recorded between 0300 and 10:00 as expected during a shutdown period. The data then shows a period of 'reportable' emissions data recorded between 10:00 and 10:30 that day. Viridor reported that during this period of stabilising the boiler, and to ensure safe conditions for entry for repairs, the feed chute dampers were temporarily re-opened to visually check that all waste had been removed from the feed chute. With the grate and feeders running and feed chute dampers opened to bring the boiler to a safe state, the incineration signal was erroneously brought online. Viridor reported that at this time, the O_2 level was greater than 15% (19.76%) and total steam flow was below 48t/h so, according to their start-up/shutdown criteria in their OTNOC plan, incineration should

have been determined as off. During the investigation, the trigger for the average O_2, on line 1, was found to be incorrectly set to 20%. The E.A.'s start-up and shutdown guidelines state that we would normally expect the O_2 trigger value to be set at 15%. As a result of this, the 'Incineration in operation' trigger was erroneously set to 'ON' logging the emissions as reportable between 10:00 and 10:30 when they shouldn't have been. Due to how operators are required to correct (standardise) the raw monitoring results to a reference oxygen concentration (normally 11% for incinerators and 6% for co-incinerators), high oxygen levels during start-up and shutdown can lead to unrealistically high corrected emission readings way above the ELV in concentration terms, whereas the actual mass emission of the pollutant will often be much lower than during normal operating condition due to less waste being burned at that point in the cycle. This is why such situations are not considered breaches of the permit ELV. This is the case with the reported VOC emissions between 10:00 and 10:30 which was measured as 1029.74mg/m3 with 19.76% oxygen. This is the reason why no exceedance of the VOC ELV will be recorded.

On this occasion, Trident Park had a catastrophic failure of one of their boiler tubes on the outboard sidewall of the 1st pass of the furnace. Such a scenario is listed as one of the OTNOC scenarios. The significance of OTNOC is that the BAT-associated emissions levels (BAT-AELs) specified in the WI BATCs do not apply during OTNOC. However, other permit conditions such as those relating to management conditions can still be breached. The duration and frequency of OTNOC must be minimised as far as practicable, and the BATCs also require certain monitoring to take place. OTNOC is defined in the UK Waste Incineration BAT Conclusions Interpretation (WI BATCs ID) as periods when the plant is in start-up, shut-down or abnormal operation. Shutdown can be summarised as the period time at the end of the plant's operation when it is unreasonable to expect the operator to comply with their emission limits due to high oxygen levels compared to normal operational conditions (leading to unrealistic correction factors), and/or unstable emissions. Table 4, of Viridor's OTNOC plan, defines the criteria which must be met before their plant can be considered to be in shutdown. In table 4 of their plan, Viridor has 'oil burner in operation' as one of their conditions for meeting the shutdown criteria. This is also reflected in permit condition 2.3.13 which requires the operator to have at least one auxiliary burner in each line to be operated at start-up, shutdown and as required during operation to ensure that the operating temperature specified in condition 2.3.8 is maintained as long as incompletely burned waste is present in the combustion chamber. However, since significant/catastrophic boiler tube leaks require immediate action for health and safety reasons, such occurrences are considered emergency shutdown events, which are defined as an instant loss of combustion air (OTNOC guidance). An example of such situations is when the plant has "tripped" (meaning that power is automatically cut to the primary and/or secondary air fans (or total air fans in some cases) and/or induced draft (ID) fan, which will lead to a loss of combustion air. This is as a result of the operation of automated safety systems to ensure compliance with Pressure Systems Safety Regulations (PSSR), which are designed to prevent serious harm to personnel or plant. Plant trips can be caused by events such as boiler tube leaks (leading to low water levels in the steam drum), sensor failures, furnace over-pressure events (e.g. due to nitrous oxide cylinder explosion) compressor failures and motor drive failures (non-exhaustive list). In this instance, such a significant rupture meant the drum level couldn't be maintained to a safe level even at the maximum feedwater replenishment rate, therefore creating a loss of combustion air situation. According to Viridor "this tube leak induced low drum level event caused the safety system to immediately 'lock out' the burners, making it impossible for operators to start them. It is an important safety requirement for us to trip combustion on low drum level, and firing burners after confirming a tube leak in the furnace would never be standard procedure due to the risk of further damage." Given that a burst boiler tube results in a loss of combustion air, and that a loss of combustion air is what effectively defines an emergency shut-down. It can be said that a breakdown situation had occurred (Article 47 of the IED) and so unreasonable to issue a non-compliance against permit condition 2.3.13 for this boiler tube burst.

Furthermore, the emergency shutdown was a short-term duration event (<24 hours) so it is unlikely to have had an impact on air quality. This is because the flue gas flow rate was observed to be very low following the tube burst, so any residual VOC emissions would have represented a small "fugitive" source term out of the

stack. In addition to this, there were no amenity impacts reported during this event. Another aspect of considering non-compliance is whether the actions that led to the emergency shutdown were technically unavoidable. This is an important part of the OTNOC considerations where operators must ensure the duration and frequency of OTNOC are minimised as far as practicable. Therefore, to ascertain if they were minimised, it was essential to check if the relevant areas of the plant were adequately maintained.

The location of this particular tube leak was on the outboard sidewall of the first pass of the furnace. The sidewall tubes are refractory clad to protect them from erosion/corrosion mechanisms. During planned outages, the refractory system is inspected and replaced where damage/defects/excessive wear are identified. This particular section of refractory in Line 1 where the burst occurred, was removed and replaced during the June 2023 outage. After the refractory had been removed the thickness of the boiler tubes was checked and any tube measuring less than 3.0mm wall thickness was replaced before the refractory system was re-applied. This particular tube had sufficient wall thickness (>3.0mm) and therefore was not replaced. Viridor's refractory system is checked at every possible opportunity between planned outages, for example during unplanned breakdown events. Any exposed tubes are thickness checked and replaced if <3.0mm wall thickness and the refractory is re-applied for protection before return to service. The original equipment manufacturer states that the minimal mechanical thickness of 57mm OD x 6.3mm wall thickness 16M03 boiler tube to hold the boiler pressure is 2.52mm. 3.0mm is the Viridor's replacement thickness limit which includes an uncertainty allowance of 10%. Ultrasonic testing thickness checks of the tubes in this area were undertaken before the refractory tiles were installed. All tubes with wall thickness <3mm were replaced or built up with carbon before the refractory system was replaced. The refractory system in the first pass is inspected during every planned outage by a specialist contractor. Photos of the refractory tiling system installation from the 2023 outage were shared with NRW. Viridor stated that their preventative maintenance regime has evolved since commissioning with more thorough NDT during planned outages. During the commissioning phase of the plant, tube thickness banding was carried out on the non-refractory areas. In recent years Viridor cleaned the full boiler waterwalls and carried out visual inspections in addition to the thickness surveys and undertook additional tests where areas of concern are identified. During planned outages over 24,000 tube thickness tests are undertaken on each boiler. This testing is undertaken by a UKAS-accredited inspection body. There have been 15 first-pass tube leaks since 2017 (9 on line 1, 6 on line 2). These occurred while an approximate 12-month inspection regime was in place. On average a boiler tube burst occurred in the first pass after approximately 242 days (8 months) after an outage. The 2023 and the 2024 boiler tube bursts occurred approximately 12 months after the previous planned outage. Since 2017, Viridor has experienced fewer first-pass boiler tube leaks with only one in 2023 and one in 2024.

To increase the energy efficiency of the incineration plant, BAT is to use an appropriate combination of the techniques given in the table in BATC 20. Section F in BAT conclusion 20, of the waste incineration Bref, states "Working at high steam conditions (e.g. above 45 bar, 400 °C) requires the use of special steel alloys or refractory cladding to protect the boiler sections that are exposed to the highest temperatures". The boiler tube burst occurred within the first pass outboard sidewall which is protected by a refractory lining. The following areas are covered by specialist Inconel cladding with additional cladding in areas further downstream planned for the May 2025 outage.

The following sections of the boiler are protected by Inconel:

- 1st pass roof, front wall and sidewalls 3.4m down from the roof
- 1st pass bullnose above grate feeder table
- 1st pass joggle sets around doors, windows and burner boxes
- 2nd pass roof, rear wall and sidewalls 3.4m down from the roof
- 1st pass rear/2nd pass front division wall including bullnose
- 2nd pass rear/3rd pass front division wall
- 2nd pass sidewall sections

- 2nd pass sling tubes and pendant risers

Viridor is planning to replace 150m^2 of refractory-protected carbon steel tubes of the first pass sidewalls and front wall with Inconel-clad membrane walls during the 2025 outage as part of their resilience planning to move to a 24-month major outage cycle. Viridor plans to conduct refractory inspections/repairs during an intermediate week-long outage on each boiler in between major 24-month outages. Any exposed tubes found during this intermediate outage would be thickness checked and any <3mm will be cut out and replaced before having refractory protection re-applied. During the major outages (every 24 months) Viridor plans to do circa 24,000 tube thickness tests on each boiler with replacement of anything <3mm before installing the refractory protection. The Written Scheme of Examination has been approved by Allianz Engineering which is based on a 24-month thorough examination frequency.

When considering all of the information above, it can be concluded that sufficient appropriate measures were in place to try to limit the amount of tube failures, including meeting the requirements of the Waste Incineration BREF (BAT 20). Therefore no non-compliance is being issued for the boiler tube burst. However, extending the outage period does come with the risk of increased boiler tube failures.

Action 1: In addition to implementing Inconel-clad membrane walls in the first pass sidewalls and front wall, what other additional measures to prevent or minimise catastrophic boiler tube failures have been considered, including more extensive use of Inconel cladding, etc.. and why have these not been taken forward? Written response required by 28th March 2025.

CAR_NRW0045320 - 14181

Permit condition 3.6. requires Viridor to undertake the monitoring specified in Schedule 3 of their permit. Included within Schedule 3 is the requirement to comply with BS EN14181, which requires operators to undertake the following:

The validity of the valid calibration range shall be evaluated by the plant owner on a weekly basis (Monday to Sunday). A full new calibration (QAL2) shall be performed, reported and implemented within 6 months, if any of the following conditions occur:

1. *more than 5 % of the number of AMS measured values calculated over this weekly period (based on standardized calibrated values) are outside the valid calibration range for more than 5 weeks in the period between two AST;*
2. *more than 40 % of the number of AMS measured values calculated over this weekly period (based on standardized calibrated values) are outside the valid calibration range for one or more weeks.*

During the OMA it became evident that the above assessments weren't being undertaken. Consequently, the following action was issued to Viridor:

Action 1: Since it was evident during the OMA audit that these checks weren't being undertaken, NRW requests that you review your 2024 CEMs data to ascertain whether the thresholds in checks 1 and 2, in BS EN 141811 (copied above), have been exceeded. Due 31st December 2024.

In response, Viridor has conducted a review of its CEMS data for 2024. The validity check has highlighted that the following parameters failed these BS EN 14181 VCR checks; Oxides of Nitrogen, Sulphur dioxide, Moisture, Carbon dioxide, and Ammonia. 14181 now requires that a full QAL2 on all of these parameters will be completed within 6 months. However, If the exceedances are because of low emissions and frequent spikes,

it is likely that a repeat QAL2 would not help in this situation (procedure c calibration). Therefore, it is advised that operators don't need to repeat the QAL2. However, if the emissions have increased since the last QAL 2, then a repeat QAL2 should be done. In general, the concentrations during the calibration should vary as much as possible within the normal operating conditions of the plant. It is recommended that operators use historical data for the installation to determine sampling times when the emissions are most varied. However, there may be cases where a process operator would need to perform a QAL2 several times due to the unpredictable nature of emissions, to meet the requirements for a sufficient spread for a valid calibration range. Therefore the regulator may be able to waive the above requirements if the operator can demonstrate the unpredictable nature of emissions, and if surrogates can be used to extend the valid calibration range, to a degree of accuracy that is acceptable to the regulator. In such cases, the VCR may be extended using reference materials up to twice the ELV for gases and three times the ELV for particulates, provided that the highest reading with a surrogate does not differ from the extrapolated calibration function by more than half the 95% confidence interval of the ELV. Please refer to TGN M20 for further information. Therefore, if Viridor is confident and can demonstrate that some of the VCR validity checks are a result of spikes, rather than higher emissions that are consistently above the VCR, then there is no benefit in repeating the QAL 2 and so it shouldn't be undertaken. If it is the case that the unpredictable nature of Viridor's emissions means they can't achieve a sufficient valid calibration range, or maintain enough emission data points within their valid calibration range, then please provide a request to waiver the QAL 2 requirements to NRW along with supporting evidence and an a plan for extending the VCR using surrogates.

As already stated, permit condition 3.6.1(a) requires operators, unless otherwise agreed in writing by Natural Resources Wales, to undertake the monitoring specified in tables S3.1, S3.1(a), S3.2 and S3.3. Within these tables is the requirement to comply with BS EN 14181. Since Viridor hasn't been assessing the validity of the valid calibration range, it can be said that they haven't been complying fully with BS EN 14181 and so haven't complied with permit condition 3.6.1(a). **Therefore, a category 3 noncompliance is being issued against permit condition 3.6.1(a)**

Following the OMA Audit and the above investigation, Viridor has now implemented these weekly checks of the validated calibration range. These checks have been included with the weekly emission monitoring spreadsheet, along with the particulates monitoring. This should enable Viridor to track changes and have visibility of the measurements compared to the VCR.

Q3 and Q4 Monitoring returns

These have been reviewed and accepted.

Additional Monitoring and Reporting Requirements

R1 Assessments Indicative R1 Calculation states 0.79, based on an 87% Boiler efficiency +/- 1.5%, which meets the minimum criteria for R1 status. R1 energy recovery factors for 2019, 2020, 2021, 2022, 2023 and 2024 as 0.78, 0.80, 0.80, 0.75, 0.75 and 0.79 respectively.

During this reporting period, Viridor measured an increase in gross electricity generation, primary flow, secondary flow, boiler feedwater flow, soot blowing flow, air heater flow and deaeration flow. They also imported less electricity. These parameters have all had a positive influence on the R1 number. Viridor also had an increase in light fuel usage and superheated steam outlet flow. These have a negative influence on the R1 number. Overall the result has been a net gain with an increase from 0.75 to 0.79.

5-Year Trend

Parameter	Units	2020	2021	2022	2023	2024
Total waste received	Tonnes	379,404	378,402	360,189	404,285	410,379
Total waste combusted	Tonnes	379,390	378,393	360,189	410,913	410,379
Power Generated	MWh	260,289	285,706	277,522	296,880	316,631
Power Exported	MWh	233,023	255,062	246,684	264,456	281,923
Power Used on site	MWh	29,676	31,387	31,116	30,985	34,391
Power Imported	MWh	899	746	1,232	1,439	318
Power Generated	KWh/T	686	755	770	722	772
Power Exported	KWh/T	614	674	685	644	687
Power Used on site	KWh/T	78	83	86	75	84
APC Residues - produced	%	1.5	2.3	1.1	1.1	3
IBA - produced	%	17.5	19.9	18.6	17.4	21.7
Metals recycling	%	2.6	1.9	0.3	0.2	0.2
Mains Water	ltrs	39,213,000	44,693,000	51,834,000	67,394,000	77,077,000
Urea	ltrs	443,640	466,000	477,320	436,460	600,000
Activated Carbon	kgs	131,040	137,000	134,000	168,600	224,000
Lime / hydrated lime	kgs	3,991,280	4,489,000	4,439,000	6,413,000	7,817,000
Fuel oil	ltrs	470,593	546,842	341,898	443,745	286,260
Mains Water	ltr/t	103.36	118.10984	143.91	164.01	187.82
Urea	ltr/t	1.17	1.23	1.3	1.06	1.46
Activated Carbon	kg/t	0.35	0.36	0.37	0.41	0.55
Lime / hydrated lime	kg/t	10.52	11.86	12.32	15.61	19.05
Fuel oil	ltr/t	1.24	1.45	0.95	1.08	0.7
Overall combustion Availability	%	88.6	89.1	85.4	91.5	95.1
Hours of turbine	%	95.5	95.8	91.7	92.9	97.6

operations						

To get a better understanding of the annual performance report, it was decided to review the data from the previous 5 years. The most noticeable trend is that Viridor has combusted more waste in 2023 and 2024 than any preceding years. This has led to the highest generation and exportation of power in 2024 than any previous year. The overall availability of combustion and total hours of turbine operation were the highest over the past 5 years which is reflected in the amount of imported power, which was the lowest over these 5 years. The amount of fuel oil used in 2024 was the lowest compared to the previous 5 years which makes sense since the combustion availability was the highest during this period. The amount of electricity generated and exported per tonne of waste combusted was also the highest during this period. However, with this increase in combustion, Viridor has seen an increase in consumption/use of water, urea, activated carbon and hydrated lime than any previous year. When converting this to a specific usage i.e. comparing their consumption/usage to the amount of waste combusted and power generated, 2024 had the highest figures. In fact, these have increased year on year with water usage almost doubling since 2020. This means on average Viridor is consuming more raw materials per tonne of waste combusted than any previous year. There has also been an increase in the amount of APC residues and IBA produced in 2024. It is difficult to ascertain if there has been a decrease in the efficient use of raw materials because the expected variability of waste feeds will also influence raw material usage. Permit condition 1.3.1. requires the operator to take appropriate measures to ensure that raw materials and water are used efficiently in their activities. It also requires operators to review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use. Compliance assessment report CAR_NRW0041088 makes reference to an 'Efficient Use of Raw Materials Action Plan' dated 12th of May 2020. Since 4 years have passed since May 2020, Viridor should have completed another 4-yearly review. The previous 'Energy Efficiency Review and Action Plan' was dated the 20th of October 2020 and the previous 'Avoidance, Recovery and Disposal of Wastes Action Plan' was dated 30th of May 2020.

Action 2: Please submit your latest efficient use of raw materials review by the 28th of March 2025.

Action 3: Please submit your latest efficient use of energy review by the 28th of March 2025.

Action 4: Please submit your latest avoidance, recovery and disposal of wastes action plan by the 28th of March 2025.

Waste Returns

Waste returns have been reviewed and accepted for 2024. The totals are as follows:

Waste Received Q1 – 112499.27 tonnes.
Waste Removed Q1 – 26587.22 tonnes.
Waste Received Q2 – 103100.65 tonnes.
Waste Removed Q2 – 25674.8 tonnes.

Outstanding Actions

CAR_NRW0044300 Action 3: Please explain how flow is measured/calculated at Trident Park. Due 30th of September 2024.

A response to action 3 from Car Form CAR_NRW0044300 has now been received and accepted.

As mentioned in CAR Form CAR_NRW0043588, Viridor was exploring the feasibility of installing a duty and standby PSU system, whereby if one power supply fails the standby will then supply the control voltage with no disruption to the MCC switchboard. An alarm would be generated informing that a power supply had failed, enabling this to be changed online with no issues/effects to the MCC switchboard. Viridor has confirmed that that this work has been completed with an alarm on the existing DCS. Viridor has also procured critical spares for these units which are stored onsite.

Martin Report 2023

The latest Combustion System Inspection Report (Martin Optimisation Report) for 2023 was reviewed. The report revealed efficient operation of key components such as hydraulic pumping stations and clinker weirs, but also identified challenges around the ID fan's limited capacity, leading to compromised air flow management and irregularities in cleaning cycles, as well as variation in live steam temperatures across different lines. There were several recommendations issued within this report which Viridor has provided updates on. These include:

- **Actively use the primary air curves.** Viridor provided an update on the 12th of December and stated that the combustion specialists came back to the site to provide additional training, Operator training for combustion control will be rolled out in 2025.
- **Check the fire on a regular basis as an essential prerequisite for stable and efficient operation.** Viridor stated that the combustion specialists have shown key personnel what to do and training will be given in 2025.
- **Calibrate the measuring devices, such as the 'wet' O2 instruments, on a regular basis**. These are now being checked and calibrated quarterly by a service contractor.
- **Check the feeder to ensure the IR temperature set points and the actual values correlate well and are not adversely affecting the fuel supply.** Viridor to provide an update at the next compliance meeting.
- **Improve the burden on the ID Fan through reduced operational load.** This has since been improved with the help of Martin. Improved understanding of air curves has decreased the burden.
- **Air ingress study using IR camera and additional gas analysers for cold spot identification and mitigation**. Viridior has completed this study, some cold identified cold spots which have since been rectified in the previous outage.
- **Evaluate the adoption of stationary cleaning methods, such as Shock Pulse Generators (SPG), to reduce the reliance on current online cleaning**. This was also mentioned in the 2022 Martin report. SPGs were fitted in line 1, during the October outage. These were installed in the third pass and high-temperature superheater. On the 12th of December, Viridor explained that they no longer need to do the existing weekly clean and the shower cleaning system in the 2nd and 3rd pass has not been needed and has been switched off. This has the benefit of less water usage and potentially less sticky ash further downstream. Viridor to provide an update on the SPG's performance at the next compliance meeting.

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.

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.