

Compliance Assessment Report CAR_NRW0040821

Permit being assessed: LP3439HM.

For: Roath Dock Treatment and Recycling Centre NRW/EPR/LP3439HM/V003, held by Castle Waste Services Limited

At: Roath Dock Transfer Station Old Clipper Road , Roath Dock, Cardiff, CF10 4LX.

Type of assessment carried out: Audit, Reason: Other.

On 17/02/2022 - 15/12/2022.

Parts of permit assessed: Operating Techniques

NRW Lead Officer: Geraint Harris.

Report sent to: Dave Humphriss, Technical Director on 10/01/2023.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
A1 - Specified by permit	C3 Minor (Suspended)	Permit Condition 2.5.1
A1 - Specified by permit	Action only (X)	
A1 - Specified by permit	C3 Minor (Suspended)	Permit condition 2.5.1
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Result types are explained in more detail in the 'Important Information' section below.

Total number of non-compliances recorded	Total non-compliance score
3	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?

Criteria	Action needed	Complete by
A1	Please submit the additional monitoring by the 1st of March 2023.	01/03/2023
A1	Please provide a plan detailing the trigger levels for each of the relevant parameters highlighted in BAT 3 and 7 along with associated procedures if trigger levels are exceeded.	01/03/2023
A1	Castle must undertake the required monitoring within the required frequency as stated within BAT 7. Castle must submit quarterly monitoring results to NRW for all the parameters given in Table S3.3 of their permit using the latest issue of form S1. Any emissions above these limits must be reported as soon as they are discovered using the Schedule	01/08/2024

Criteria	Action needed	Complete by
	5 Notification procedure. Castle must make the necessary improvements by August 2024.	
A1	Please ensure that all containment infrastructure meets ciria736 requirements by September 2023.	30/09/2023

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

Castle Waste Services Limited

EPR/LP3439HM

Castle's permit has been varied following the publication of the revised Best Available Techniques (BAT) Reference Documents (BREF) for Waste Treatment. The associated BAT conclusions to this document were published on 17th of August 2018 in the Official Journal of the European Union. This variation incorporates the changes required by the Industrial Emissions Directive following a statutory review of permits in the Waste Treatment sector. As part of this variation and to ensure that Castle are operating to the latest BAT requirements, Castle were required to submit responses to six improvement conditions by February 2022. Since this deadline the responses have been reviewed along with additional information that was requested as the review progressed. A summary of the improvement condition responses are detailed below:

Improvement condition 3

The operator shall submit a written Fire prevention and mitigation plan to Natural Resources Wales.

A submission was provided on 29/10/2021 outlining the approach Castle have taken with regards to this improvement condition. This has been subject to discussions between Castle and NRW and the approach is considered to be acceptable. Details of the approach and acceptance of this improvement condition are stated in CAR Form CAR_NRW0039589.

Improvement condition 4

The Operator shall submit to Natural Resources Wales for written approval information to evidence compliance with BAT Conclusion 1.

BAT 1 states "In order to improve the overall environmental performance, BAT is to implement and adhere to an environmental management system (EMS) that incorporates all of the following features". A list of these features can be seen in BAT Conclusion 1, section 6.1.1, page 718 of the Waste Treatment BREF. An EMS in accordance with ISO 14001 standard is able to satisfy the majority of the requirements outlined in BATC 1. As part of their response to BAT 1 Castle provided a table detailing where each of the features stated on page 718 can be found within their EMS. Castle go on further to state that, "The EMS is subject to a regular Management Review which is defined within the Management System Manuals. Then formal management review meeting is undertaken on an annual basis. Less formal meetings are undertaken on a site-specific basis monthly. As part of these meetings specific elements of the management system are reviewed. This includes

Objectives and Targets, Calibrations, Power consumption, and various other HSEQ topics.”

Using sections 2.3.12, 2.3.13.1, 2.3.5.1 and 2.3.10.1 of the Waste Treatment BREF as guidance, I can confirm that the information within the documents listed above satisfy the requirements of BAT1. Therefore, Improvement Condition 4 is considered complete.

***Improvement condition 5
(Incorporates a number of BAT conclusions. These will be addressed individually.)***

BAT 3 – In order to facilitate the reduction of emissions to water and air, BAT is to establish and to maintain an inventory of wastewater and waste gas streams, as part of the Environmental Management System, that incorporates all of the following features:

A. Information about the characteristics of the waste to be treated and the waste treatment processes;

Information about the characteristics of the waste to be treated is well established within Castle's Management system. Castle have several procedures related to waste acceptance at the Cardiff site. They also have a well-established waste tracking system. There are two essential reference numbers for the tracking of wastes, these are the Waste Specification Number (WSN) and the Waste Receipt Note (WRN) number. The WSN is assigned during the technical assessment and pre-acceptance stage and is specific to that waste enquiry. All information gathered during initial assessment of the waste is indexed by the WSN, this information is held within an electronic data management system known as Goldmine. As part of the waste inspection process, containers are sampled and tested in accordance with the requirement of the "Waste Inspection" section of the Goldmine system. Details of the waste and the results of the inspection are added to the containerised waste stock system. Each container is assigned an individual number, the format of which is the WRN/00N. WRN/00N+1, etc. This numbering system provides traceability to the container against the incoming paperwork and the goldmine system. The label contains key information such as; description of the waste, chemical components, storage location, treatment route and PPE handling codes. These data fields are contained within the containerised waste tracking system which are transferred directly from the goldmine system. Many additional data fields are contained within the tracking system which are not added to the label, these include WSN, customer details, hazardous properties, EWC codes, etc.

The Cardiff site has an in-house laboratory which is used to undertake regular analysis of samples from all aspects of the waste treatment process. The laboratory provides Atomic Absorption Spectroscopy, Ion Chromatography, Photometry and a wide selection of wet chemistry testing. All analysis is undertaken in accordance with documented Standard Operating Procedures (SOPs). Equipment maintenance and calibration is undertaken in accordance with the ISO 9001 Quality Management System (QMS) in place at the site.

An overview of the waste treatment process was provided in document 'LP3439HM.22.EN.02.01 WW Inv - with flow diagram'. This document has been accepted. This document along with the information stated above satisfies this section of BAT3.

B. information about the characteristics of the wastewater streams;

Onsite testing is predominantly focussed on the parameters specified within the trade effluent consent agreement. Castle state within their document titled 'LP3439HM.22.EN.02.01 WW Inv -with flow diagram', that "Further to the ongoing compliance testing, additional parameters have been analysed in accordance with the revised WT BREF, specifically the BAT conclusion BATC 20." Table 2 within this document lists a significant number of substance/parameters within the waste stream that have been analysed. The

table shows a significant number of data points for each of the parameters tested with the exception of Benzene, Xylenes, HOI and AOX. These four parameters have been recently added to the permit and an understanding of their quantities within Castle's waste stream is still being evaluated. However, for the remaining parameters, it is clear that Castle have a good understanding of the characteristics of their wastewater streams. Therefore, since castle have started analysis of the additional parameters, they are considered to be applying with BAT 3.

BAT 6 - for relevant emissions to water as identified by the inventory of wastewater streams (see BAT 3), BAT is to monitor key process parameters (e.g. wastewater flow, pH, temperature, conductivity, BOD) at key locations (e.g. at the point where the emission leaves the installation). BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.

There are a number of stages within the waste treatment process where wastes undergo sampling and testing, this includes initial batch modelling and in-process sampling. Furthermore, the treated effluent discharge point is provided with an MCERTS accredited autosampler which provides composite samples of the effluent. The Cardiff site has an in-house laboratory which is used to undertake regular analysis of samples from all aspects of the waste treatment process. Testing is predominantly focussed on the parameters specified within the trade effluent consent agreement. The laboratory provides Atomic Absorption Spectroscopy, Ion Chromatography, Photometry and a wide selection of wet chemistry testing. All analysis is undertaken in accordance with documented Standard Operating Procedures (SOPs). Equipment maintenance and calibration is undertaken in accordance with the ISO 9001 Quality Management System (QMS) in place at the site. Compliance with these limits is checked by third party sampling and analysis using a UKAS accredited laboratory. This is undertaken by the sewer undertaker Welsh Water. The response to BAT 6 has been accepted and is considered complete.

BAT 7 - is to monitor emissions to water with at least the frequency given within the table of BAT 7 and in accordance with EN standards.

BATC 7 details monitoring frequencies for specific substances / parameters depending upon the waste treatment process. The text at the bottom of the table of BAT 7 lists a number of caveats related to this conclusion. The more pertinent ones include:

1. Monitoring frequencies may be reduced if the emission levels are proven to be sufficiently stable.
2. In the case of batch discharge less frequent than the minimum monitoring frequency, monitoring is carried out once per batch.
3. The monitoring only applies when the substance concerned is identified as relevant in the waste water inventory mentioned in BAT 3.
4. In the case of an indirect discharge to a receiving water body, the monitoring frequency may be reduced if the downstream waste water treatment plant abates the pollutants concerned.

Castle have highlighted the substances within the table below that they believe are sufficiently low and stable enough to reduce the monitoring frequency. For Arsenic, Mercury, Manganese and Cyanide a sufficient number of monitoring rounds have been undertaken to demonstrate that they are both present in low enough and stable enough qualities to reduce the monitoring regime to monthly. With regards to AOX, HOI, BTEX, PFOS and PFOA, an insufficient number of monitoring rounds have been conducted. With regards to Hexavalent Chromium (Cr(VI)), samples have been analysed by third party external laboratories for Cr(VI). The current permit limit is 0.01 mg/l. On each occasion the concentration has been below the limit of detection for the technique applied. Of the nine samples analysed, eight have an LOD of 0.3mg/l, one has an LOD of 0.06. Castle in their response state, "the selection of an ELV at the lower end of the BAT-AEL range is inconsistent with the other ELVs detailed within the permit. The higher end of the range is 0.1mg/l". Provided that Castle can provide analysis with a much lower LOD which demonstrates low and stable concentrations, NRW will accept a monthly monitoring regime with the upper limit of 0.1mg/l.

As it stands additional monitoring is required to close out BAT conclusion 7. This has already been mentioned to Castle who have been undertaking additional monitoring of the parameters mentioned above. Since Castle do not currently meet the requirements of BAT 7, a non-compliance category 3 is being issued against permit condition 2.5.1, as the BATC implementation date in August has now passed. However, NRW will suspend this score since Castle are taking steps to satisfy BAT 7 requirements. If Castle fail to complete the required work the suspension maybe lifted, and the score applied.

Action 1: please provide the results of the additional monitoring by the **1st of March 2023**.

Substance / Parameter	Monitoring frequency as per BAT 7 and Table S3.3
Adsorbable Organically Bound Halogens (AOX)	Daily
Free Cyanide (CN)	Daily
Hydrocarbon Oil Index (HOI)	Daily
Arsenic (As)	Daily
Manganese (Mn)	Daily
Hexavalent Chromium (Cr(VI))	Daily
Mercury (Hg)	Daily

BAT 20 – in order to reduce emissions to water, BAT is to treat wastewater by using an appropriate combination of the techniques described within the table of BAT 20 with the associated BAT-AELs.

BAT 20 details a range of techniques that should be used to reduce emissions to water. BAT 20 also stipulates the BAT-associated emission levels (BAT-AELs) relating to the application of the specific techniques. Castle currently discharges effluent to sewer under the terms of a Trade Effluent Consent issued by Welsh Water. This is an indirect discharge to sewer, therefore Table 6.2 of BAT 20 is pertinent. Table 6.2 includes notes 2 and 3 which state:

- "2. The BAT-AELs may not apply if the downstream wastewater treatment plant abates the pollutants concerned, provided this does not lead to a higher level of pollution in the environment.
3. The BAT-AELs only apply when the substance concerned is identified as relevant in the wastewater inventory mentioned in BAT 3".

With regards to point 2 above, sewage treatment reduction factors (STRF) may only be applied where the receiving wastewater treatment works (WWTW) can demonstrate that the pollutant is treated and abated, not merely diverted to another receptor (for example, metals in WWTW sludge which is either spread to land or sent to landfill. Neither EA nor NRW will accept this as abatement). This is not in line with the requirements of IED Article 15(1) where it states, 'With regard to indirect releases of polluting substances into water, the effect of a water treatment plant may be taken into account when determining the emission limit values of the installation concerned. However, this is provided an equivalent level of protection of the environment as a whole is guaranteed and that this does not lead to higher levels of pollution in the environment.'

With regards to point 3, if an operator carries out an activity listed in the Bref/BATc (for example, "Treatment of water based liquid waste"), then the relevant BAT associated emission levels (AEL) must be included in the permit. Where the operator can demonstrate that the pollutant is not present in the incoming waste (using BAT3), then the BAT AEL will not apply for that substance (Table 6.2, note 3). As it stands all of the parameters

listed within Schedule 3b of the permit have been measured in sufficient enough quantity to be deemed as relevant and so must remain within the permit with the associated BAT-AELS.

Castle have submitted extensive monitoring data for these improvement conditions. NRW and Castle have assessed the raw data for metals since STRFs cannot be applied to emissions of metals. The average concentrations for all the parameters, excluding CrVI, are within the BAT-AELS. However, Castle state they are not able to achieve them on a reliable and robust basis with the current waste treatment plant. In a subsequent correspondence between Castle and NRW, Castle provided additional monitoring results detailing the average and 90th and 95th percentile values of data obtained within 2021. Castle state “whilst average values are compliant, when taking into account 90th and 95th percentile concentrations we are unable to comply with the BAT-AEL limits for a range of metal ions chromium, copper, lead and potentially nickel”. They further state “To be able to deliver the final 1-2ppm reduction requires significant investment and additional resources. In general terms, we will require the installation of a second polishing stage to the waste treatment process. This stage will require further pH adjustment, addition of a chemical treatment aid and a flocculant, removal of settled solids and most likely microfiltration of the final effluent prior to discharge. This will require the installation of new tanks in addition to the other infrastructure”.

NRW appreciate that Castle will have to make a significant investment in order to meet the BAT AEL consistently and that the approval process for this expenditure and timeframe for installation and commissioning may run over more than one financial year. NRW are prepared to delay the implementation of the BAT AELs given in Table S3.3 as long as Castle provide NRW with a timeline for the installation and commissioning of the modified treatment plant, or an acceptable alternative plan. In addition, all emissions of metals must remain within the limits set in Castle’s Consent to Discharge. A recent response to Improvement Condition IC9, Additional Information LP3439HM/22/IC/09/02, contains a chart showing the timeline for the installation and commissioning of the modified treatment plant being complete by the 1st of August 2024. NRW will hold Castle to this date and will use the suspended score scenario in mentioned below until this date.

NRW will require Castle to undertake the required monitoring within the required frequency as stated within BAT 7. Castle must submit quarterly monitoring results to NRW for all the parameters given in Table S3.3 of their permit using the latest issue of form S1. Non-compliances will be recorded against the parameters given in Table S3.3 and suspended, provided that they are within the limits set by DCWW. Failure to complete the planned ETP improvements within the set time will result in the suspensions being lifted and the scores being applied. Any emissions above these limits must be reported as soon as they are discovered using the Schedule 5 Notification procedure. NRW may, at their discretion, reconsider these decisions at any time.

Since Castle are unable to meet the requirements of BAT 20, a non-compliance category 3 is being issued against permit condition 2.5.1, as the BATC implementation date in August has now passed. However, NRW will suspend this score since Castle are taking steps to satisfy BAT Conclusion 20 requirements. If Castle fails to complete the required work the suspension maybe lifted, and the score applied.

The Operator shall submit for written approval a methodology for monitoring the relevant process parameters listed in Schedule 3b Table S3.3. The methodology shall identify each of the relevant process parameters listed and identified in the wastewater inventory (BAT 3) and detail the frequency and techniques in place to record the data (outlined in BAT 7 and BAT 20). Where a process parameter cannot be monitored justification should be provided and/or a suitable alternative proposed. The methodology should include trigger levels for each of the relevant parameters identified with associated procedures in

place if trigger levels are exceeded.

Action 2: Please provide a plan detailing the *trigger levels for each of the relevant parameters highlighted in BAT 3 and 7 along with associated procedures if trigger levels are exceeded. Due 1st of March 2023.*

Improvement condition 6

BAT 3 - in order to facilitate the reduction of emissions to water and air, BAT is to establish and to maintain an inventory of wastewater and waste gas streams, as part of the Environmental Management System, that incorporates all of the following features:

- **Information about the characteristics of the waste to be treated and the waste treatment processes;**
- **information about the characteristics of the wastewater streams; and**
- **information about the characteristics of the waste gas streams.**

Information related to BAT 3 for liquid waste has been addressed previously. The site does not have any waste gas streams, however there are some techniques applied for the management of displaced air either from waster powder storage silos, waste acid storage tanks or reaction vessels.

BAT 8 - upon completion and review of the inventory of waste gas streams, BAT 8 is to monitor channelled emissions to air with at least the frequency outlined within the table of BAT 8.

In response to improvement condition 6, Castle provided document LP3439HM/22/IC/06/01. Following this, Castle was asked why the displaced air either from waste powder storage silos, waste acid storage tanks or reaction vessels can't be monitored. Castle stated "We believe monitoring of these "emissions" to be impractical and unnecessary. With regard to powder silo dust emissions, all silos are fitted with reverse jet filters these are common across all sectors that store powders in bulk. The silos passively vent via the filters during offloading. We are not aware of any site that has emission limits or monitoring requirements applied to such silos, other than visual monitoring for emissions during filling with the limit value "no visible emission". Acid scrubbers serving tanks are similar in that air only passes through them whilst a tank is being filled. In the case of Cardiff this may be 20-25 cubic metres per day. This is difficult to effectively monitor. We ensure that the scrubber works correctly by checking the pH of the scrubber liquor, an alkali pH indicates the scrubber remains effective. We have previously seen these types of arrangements included into the permit in lieu of an emission limit value and monitoring frequency". Taking into consideration the above response and the difficulty in undertaking monitoring, Castle was asked to demonstrate that the scrubbers are suitably designed and maintained (internal inspection) with good control of the pH.

In response to the above castle provided document LP3439HM.22.IC.06.100 - Improvement Condition IC6 – Abatement System Inspection & Maintenance. Within this document Castle describe the current abatement/scrubber techniques utilised including the dust filters and acid scrubber. The 44-page document details the monitoring and maintenance regime for each of the abatement/scrubber systems. NRW are happy that there is sufficient information within this document to demonstrate that the scrubbers are suitably designed and maintained (internal inspection) with good control of the pH. Therefore BAT 8 is considered complete.

BAT 41 and BAT 53

BAT 41- in order to reduce emissions of dust, organic compounds and NH₃ to air, BAT is to apply BAT 14d and use one or a combination of techniques described within the table of BAT 41 with the associated BAT-AELs.

BAT 53 - in order to reduce emissions to air, BAT is to reduce air emissions by using an appropriate combination of the techniques described within the table of BAT 53 with the associated BAT-AELs.

As mentioned in the response to BAT 8, Castle collect and redirect their emissions to an appropriate system. A fabric filter is used for dust emissions and a wet scrubbing system is used for acidic emissions. Dusts are stored within buildings at the site, therefore BAT 41 and 53 are considered complete.

Improvement Condition 7

The Operator shall submit to Natural Resources Wales for written approval information to evidence compliance with BAT Conclusion 5. The Operator shall submit details for how the installation takes precautions when mixing or blending wastes and how procedures are risk-based and consider the likelihood of accidents, incidents and their environmental impact.

In response to this particular improvement condition (BAT 5), Castle have provided answers to general techniques in section 2.3.13.3 of the BREF -Techniques For The Reduction of The Environmental Risk of Handling and Transferring Waste. The detailed response was provided in appendix 5 document - LP3439HM.22.IC.07.001 - IC7 LP3439HM. In their conclusion to this document Castle state: "The Castle Cardiff facility has sufficient operational control in place to effectively manage the safe and effective handling of wastes. These measures include process safety measures, operational procedures, maintenance programs and emergency response measures". Upon review I agree with this statement and consider IC7 complete.

Improvement Condition 8

The Operator shall submit to Natural Resources Wales for written approval information to evidence compliance with BAT Conclusion 14 in accordance with the requirements specified within the BAT Conclusions of the Waste Treatment BREF Document (EU 2018). BAT 14. In order to prevent or, where that is not practicable, to reduce diffuse emissions to air, in particular of dust, organic compounds and odour, BAT is to use an appropriate combination of the techniques given below.

The control and prevention of diffuse, or fugitive emissions, from the Castle Cardiff site is achieved by compliance with the site Fugitive Emissions Management Plan 2.3.5.1. This was provided as appendix 6 of the improvement conditions responses. The details provided within this document coupled with the response to Improvement condition 6 demonstrate that an appropriate combination of techniques detailed in BAT 14 are being utilised. This Improvement condition is considered complete.

Improvement Condition 9

The Operator shall submit to Natural Resources Wales for written approval information to evidence compliance with BAT Conclusion 19 in accordance with the requirements specified within the BAT Conclusions of the Waste Treatment BREF Document (EU 2018).BAT 19. In order to optimise water consumption, to reduce the volume of wastewater generated and to prevent or, where that is not practicable, to reduce emissions to soil and water, BAT is to use an appropriate combination of the techniques given below.

In response to BAT 19 Castle provided Appendix 7 - 2.3.5.4 Water Management Arrangements. This document details the current and planned water management control systems. Castle have good awareness of their water usage and water collection opportunities. A rainwater harvesting project is due to be implemented within 2022. A process will be put in place to enable both clean rainwater and clean surface water to be re-used in the APCr washing process and the aqueous treatment process. Upon reviewing the different techniques in BAT 19, it is clear that Castle is utilising a significant number within their operations.

For the purpose of the BREF review BAT 19c, the operator must show how they meet the BAT conclusions of BAT 19 by means of referring to Ciria736 standards or equivalent standards. If the operator/site has appropriate other standards in place that will be acceptable. Ideally, we would expect operators to submit what standards they currently have (what they submitted when permitted) and how they have maintained them through the EMS and ensure covers what's listed in BAT 19. BAT 19 c is the one where NRW do need to

know the spec of the impermeable surface i.e confirm spec is to ciria736 or equivalent standard signed off by an appropriately qualified engineer.

Castle have commissioned an independent third-party engineer to undertake a review of the current site infrastructure. This review has drawn upon the available information relating to the infrastructure in place at the site when Castle first adopted the permit from the previous operator Seaport Environmental. This information is limited due to the situation around the transfer of the permit between the two companies and predominantly consists of information provided to NRW as part of the original permit application. In addition, the review provides a design review of the works undertaken by Castle whilst the site has been under their control. The site infrastructure has undergone significant improvement under Castle's tenure. Works completed by Castle have been found to be in accordance with the CIRIA standards.

There are areas of the site where legacy infrastructure remains, due to the age of these areas there is some uncertainty regarding the initial design and construction. These areas of the site are programmed for improvement works. The areas consist of the Yard 1 press house and the Yard 2 tank farm. Due to the decision to remove Tank 7, the press house works will be undertaken in two distinct phases, phase I includes the location of the former powder storage area and approximately 2/3 of the floor space within the press house structure. Phase II consists of the remaining area of the press house and the existing tanker offloading area but can only be completed once Tank 7 has been removed. The current proposal is that enabling works for phase I will begin in January 2023 and be completed by the end of May (inclusive of curing time). Phase II enabling works will then commence mid-June and run until mid-September (inclusive of curing time). The Yard 2 tank farm currently contains 4 off 200 cubic meter storage tanks. It is understood that the bunding in place was originally installed for a much larger storage vessel during a previous use of the site. The report provided by Castle makes some basic assumptions regarding the construction of the bunding wall. Based on these assumptions the retrospective structural calculations conducted in accordance with BS 8002:1994 show the design to be sufficient to manage the potential loading that could be placed upon it in the event of a storage vessel failing. Based on these calculations the design and construction of the bund is suitable for the current usage. Inspection of the bund identified some proposed repair works. These have either been completed or will be completed as part of the Phase I press house works.

The construction planned to Yard 1 in the former press house is designed to be built to current standards. As a consequence, the current infrastructure does not meet the requirements for BAT 19. Since Castle are unable to meet the requirements of BAT 19, a non-compliance category 3 is being issued against permit condition 2.5.1, as the BATC implementation date in August has now passed. However, NRW will suspend this score since Castle are taking steps to satisfy BAT Conclusion 19 requirements. This score is being suspended until the end of September 2023, If Castle fails to complete the required work the suspension maybe lifted, and the score applied.

Improvement Condition 10

The Operator shall submit to Natural Resources Wales for written approval information to evidence compliance with BAT Conclusion 23 in accordance with the requirements specified within the BAT Conclusions of the Waste Treatment BREF Document (EU 2018).

In lieu of a specific energy plan and energy balance record Castle have provided their Energy Efficiency Policy Ref 1.6.18. Within this document Castle state "Whilst maintaining operational goals and providing an acceptable working environment for staff by efficient management of energy utilisation, Castle aim to:

- Minimise energy and water use
- Minimise energy costs
- Minimise environmental impact of harmful emissions

- Minimise the depletion of fossil fuels

The Castle Group is committed to achieving best practice in energy efficiency. The Castle Group will provide senior level commitment, an appropriate management structure and cost-effective resources to achieve these standards which will contribute to environmental improvement and long term sustainability". The policy goes on to state the short-, medium- and long-term goals for efficiency and demonstrates commitment from all levels of management. In addition to this policy Castle have provided examples of projects that have been undertaken to improve efficiency. These projects include:

- Replacing old filter press with a new, more efficient model. The major saving in this instance is the water content of the filter cake (carbon saving on transport per tonne of solid residues), better housekeeping, enabling works for press house improvements. The use of more efficient equipment such as pumps due to new vs. old equipment.
- Lighting - Low energy lighting is due to be installed in the press house as part of the redevelopment works.
- Removal of old infrastructure.
- A group wide review of Air Compressors to ensure efficiency. This has been successful at the Stoke site and we are currently assessing the usage and needs of the Cardiff site.

NRW consider this improvement condition complete.

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.