

03 August 2021

John McClean
Environment Agency
By Email Only

Our Ref: 416.09314.00002
Your Ref: EPR/GB3604UQ/V002

Dear John,

RE: *BIFFA WASTE SERVICES LIMITED – ENVIRONMENTAL PERMIT VARIATION APPLICATION, NOT DULY MADE RESPONSE*

We are writing on behalf of Biffa Waste Services Limited (Biffa) in response to the request for further information in the Not Duly Made Letter issued on 14th July 2021, in support of the Environmental Permit (EP) variation application for the Sunderland Recycling Centre and Transfer Station.

For clarity, the questions from the Environment Agency (EA) are listed below in italics with the response from SLR shown in blue.

1. *Type of variation required to the waste operation (Application Form, Part C2, Section 2a).*

You have applied for a minor variation to the existing waste operation to install the polymers recycling plant. You have not demonstrated that a minor variation is the correct application type.

Our Environmental permitting chares guidance defines a minor variation as “one that: needs some technical input from the Environment Agency – but much less than for a normal variation” and defines a normal variation as one that “will need technical input by the Environment Agency”.

An example of a normal variation is given as one that would “make a change that would alter the nature of your facility’s operation or increase the environmental risk posed”.

The flow diagram of the polymers recycling plant outlined in Appendix A to your Best Available Techniques Assessment document shows process washings being created from the operation of the polymers recycling plant and being directed to the proposed new waste water treatment plant. This indicates that the polymers recycling plant produces a new site waste water discharge requiring treatment which would increase the environmental risk posed from your site if that polymers recycling plant was not present.

You must either:

- *Justify that the installation and operation of the polymers recycling plant fully meets the definition of a minor variation; or*
- *Apply for a normal variation to the waste operation to address the installation of the polymers recycling plant by:*
 - *Resubmitting a revised copy of Application Form, Part C2, with “Normal Variation” ticked in section 2a; and*
 - *Making an additional payment of £1,586 which is the difference between the £3,965 fee for a normal variation to a transfer station taking non-biodegradable*

wastes (1.16.10 of our charging scheme) and the fee of £2,379 which you have paid for a minor variation.

SLR Response

Biffa have decided to pay the additional fee and apply for a normal variation. However, as discussed Biffa will apply for a fee abatement. The Fee Abatement Letter is included as Enclosure 1 to this response.

Therefore, application form Part C2 has been updated with “Normal Variation” ticked in Section 2a to reflect this change and is included as Enclosure 1 to this response.

The additional fee of £1,586 ha was paid on 28th July 2021 by Biffa Waste Services Ltd with the reference number PSCAPPBIFFA604.

2. Habitats assessment (Application Form, Part C2, Section 6 – Environmental risk assessment).

Section 3.5.1 of the Environmental Risk Assessment submitted states that there are no Ramsar sites, Sites of Special Scientific Interest (SSSI), Special Protection Areas (SPA), Special Areas of Conservation (SAC) or Local Nature Reserves within 1km of the site. Our screening distance for Ramsar sites, SACs and SPAs is 10km from the permitted site and for SSSIs and LNRs is 2km from the permitted site.

- a) You must assess and document whether there are habitats sites within the 10km and 2km screening distances; and*
- b) If these sites are present, you must assess if there is a potential source/pathway/receptor linkage to those sites from your proposed new operations, and if so, you must pay an additional fee of £779 for us to carry out a habitats assessment.*

SLR Response

The relevant habitat sites within the 2km and 10km screening distances from the environmental permit boundary have been assessed and are included in Section 3.5.2 and Section 3.5.3 of the updated Environmental Risk Assessment (ERA), which is included as Enclosure 2.

Both a SSSI and LNR are located within a 2km radius of the site and a Ramsar site, SAC and SPA are located within 10km of the site. The habitat sites and the reasons for their designations are described below:

Sites located within 2km;

- Dawson’s Quarry SSSI is located approximately 1,700m south east of the site. It is designated because it contains an excellent exposure of submarine debris flow that lies a few metres above the base of the Raisby Formation. Generally, this is less than a metre thick but debris flow at Dawson’s Plantation displays great lateral variation. It forms part of a more extensive but discontinuous thin sheet of disrupted strata. The quarry also features many curved joints and minor movement planes, possibly caused by contemporary movements. The quarry provides the best example of a debris flow in the marine Permian of the Durham

- province; and
- Barmston Pond LNR lies approximately 1,500m to the north. The pond is important for birds and, in autumn waders frequently stop to feed whilst on their migration south.

Sites located within 10km;

- Two areas of the Northumbrian Coast Ramsar are situated within a 10km radius of the site. The closest area lies approximately 9,300m to the east and the second area is approximately 9,600m north east. The coast comprises several discrete sections of rocky foreshore that regularly support internationally important numbers of purple sand piper and turnstone. The area also includes a sandy beach which supports a nationally important breeding colony of little tern. The area is also a SPA and SSSI;
- Durham Coast SAC is located approximately 9,300m from the site's eastern boundary. It is one of the only examples of vegetated sea cliffs on magnesium limestone exposures in the UK. The cliffs extend along the North Sea for over 20km from South Shields, southwards towards Blackhall Rocks. The vegetation is unique in the British Isles. Rare species often grow together creating unusual and species-rich communities of high scientific interest; and
- Northumbria Coast SPA lies approximately 9,300m east of the site and also approximately 9,600m to the north east. The area is also a SSSI and Ramsar site. Multiple sections of the rocky foreshore along the coast support internationally important numbers of purple sand piper and turnstone.

As detailed in the ERA, there will be no point source emissions to groundwater, air or land resulting from the proposed variation.

The treated effluent from the wastewater treatment plant, associated with the polymers recycling facility, will be discharged to the foul sewer network. The discharge is managed and monitored by Northumbrian Water via a Discharge Consent (as detailed in the response to Question 6 below) which allows for the discharge to the Washington Sewage Treatment Plant.

As detailed in the H1 SW Risk Assessment submitted with this application, the point at which the final effluent is discharged from Washington Sewage Treatment Plant, is located to the east of the site into the River Wear (NGR: NZ3310553). The River Wear is not a local, national or European designated site, and does not flow into a protected site (the North Sea).

From the point at which the discharge is released into the River Wear (**source**) there is no direct **pathway** to the designated sites (**receptors**) detailed in the above points. Therefore, we believe that a Habitats Assessment is not required.

3. Technically Competent Staff (Application Form, Part C2, Section 3b – Technical ability.

The Environmental Working Plan indicates that the technically competent managers for the site will be Steve Cormack (whose Continuing Competence certification runs until January 2023) and Chris Murphy (whose Continuing Competence certification expired in March 2021).

You must demonstrate that either Chris Murphy has extended his Continuing Competence Certificate or is booked into an examination to do so.

SLR Response

Chris Murphy has extended his Continuing Competence Certificate. His most recent Continuing Competence Certificate expires on the 25th March 2023 and a copy has been included as Enclosure 3 of this response.

4. Site Condition Report (Application Form, Part B3 or C3, Table 3 – Technical standards).

There is no evidence in the Site Condition Report template provided that addresses hazardous substances. If a facility stores, uses, produces or releases hazardous substances, then the Site Condition Report should identify 'relevant hazardous substances (RHS)' and, if the Stage 1-3 assessment identifies a risk to soil or groundwater, baseline reference data should be established. The H1 risk assessment provided indicates that hazardous substances such as toluene, benzene and cadmium may be present in the effluent released from the permitted process.

You must address and assess, if required, the potential presence of hazardous substances within the Site Condition Report provided.

SLR Response

Section 2.4 Relevant Hazardous Substances of the Site Condition Report has been updated to identify the relevant hazardous substances on site, and their storage arrangements. The updated Site Condition Report is included as Enclosure 4.

In relation to the storage of hazardous components from the wastewater treatment plant; the Washington Sewage Treatment Works will remove a proportion of certain hazardous chemicals and elements in the discharge via physical and biological processes (i.e. activated sludge) before it's discharged to the River Wear. The amount of each hazardous chemical or element that will be removed by the STW is known as a sewage treatment reduction factor (STRF). The EA provide STRF values for certain hazardous chemicals or elements in their guidance.

Table 3-1 of the H1 SW Risk Assessment, shows the chemical composition of the proxy site effluent obtained from Biffa and the STRFs applied to the applicable hazardous chemicals and elements. In total, 16 hazardous chemicals and elements have been assessed in the SW risk assessment.

The first phase of screening is devised to quickly screen out hazardous chemicals and elements. If the concentration of the hazardous chemical or element in the discharge is less than its corresponding AA and/or MAC EQS value, then it cannot deteriorate the receiving watercourse beyond the EQS value.

The test was carried out on both average and maximum release concentrations of hazardous chemicals and elements contained in Table 3-1 and accounted for STRF's. As a result, test 1 screened out 5 of 16 hazardous chemicals and elements assessed (see green highlighted cells in Table 3-1).

The H1 SW Risk Assessment concluded that the assessed hazardous chemicals and element are not considered to be a risk to the environment.

Therefore, in light of the conclusions of the H1 SW Risk assessment and due to the containment methods employed at the facility for the wastewater treatment plant, which operates as a closed loop system and where operations are undertaken on sealed surfacing and a sealed drainage system, it is highly unlikely that there is a risk to groundwater or soils.

5. Odour (Application Form, Part C2, Section 6 – Environmental risk assessment).

The Risk assessment provided addresses the impact of odour from the proposed changes. It is not evident if the facility already has an Odour Management Plan. The evidence provided does not fully justify the conclusion that odour may not be an issue at off-site receptors.

For example, the application Risk Assessment states that the baled plastic received on site contains a “negligible quantity of putrescible or readily degradable residues”. However it is not evident if the quantity of baled plastic received on site would increase as a result of new polymers recycling process (with the overall waste received on site remaining within the limit of 500,000 tonnes/year) and possible increasing the risk of detectable odour off-site.

In addition, the risk of odour from the screened solids removed in the waste water treatment plant and stored on site in a skip is not considered fully.

You must address further the potential impact of odour from the proposed polymers recycling plant and waste water treatment plant and demonstrate that this odour risk is controlled, managed and does not pose a risk at sensitive off-site receptors.

Should an Odour Management Plan be required, you must submit that Plan which should meet the requirement of our H4 Guidance. The charge for our assessment of your plan is not included in your baseline application charge. You would therefore need to make an additional payment of £1,246 should the Odour Management Plan be submitted.

SLR Response

Table 4-1 Odour Risk Assessment and Management Plan of the ERA, included as Enclosure 2, has been updated to further address the potential impact of odour from the proposed polymers recycling plant and wastewater treatment plant and demonstrate how this odour risk is controlled and managed so it does not pose a risk to sensitive off-site receptors.

Wastes being handled at the site will continue to be in accordance with the existing permit. No increase in the permitted annual throughput of 500,000 tonnes per annum will be required. Baled plastics have already been transferred, via the site, to polymer recycling facilities and in the future will be subject to processing within the building on site instead of export from the site.

Waste destined for treatment at the polymers plant will consist only of plastics with a negligible quantity of putrescible or readily degradable residues. The plastic waste will mostly be sourced from Biffa’s Materials Recycling Facilities (MRFs) and Polymers Recycling Facilities (PRFs) where the plastic waste will be sorted prior to arrival on site, minimising the potential for odour emissions.

Furthermore, the waste types accepted at the polymers plant are already included in the current environmental permit. The site is principally a skip yard therefore, the waste types on site mostly consist of inert and non-hazardous wastes including polymers, commercial wastes, aggregates and skip wastes. Long-term experience from the operator has demonstrated that the generation of off-

site malodours at the site is uncommon. Therefore, we believe that for this variation application the site does not require an Odour Management Plan.

6. Monitoring of wastewater discharges (Application Form, Part B3 or C3, Section 4 – Monitoring)

The application does not outline if monitoring is proposed for the discharge from the wastewater treatment plant to ensure compliance against the Trade Effluent Discharge Consent.

You must outline:

- If monitoring is proposed on waste water discharges to Northumbrian Water and, if so, what parameters are proposed to be monitored, at what frequency and to what standards (including if the equipment used or methods proposed meet MCERTS standards).*

SLR Response

The Discharge of Trade Effluent consent is included as Enclosure 5.

Monitoring is proposed for the discharge from the wastewater treatment plant to ensure compliance against this consent. Monitoring will be monthly and the sample will be analysed for the substances described in the table below as well as pH. The sample must have a pH value between 6 and 10.

Constituents	Limit (milligrams per litre)	When expressed as
Total Chemical Oxygen Demand (Dichromate Value)	2500	O ₂
Suspended solids dried at 105°C (Non-volatile matter extractable by 40/60 petroleum spirit)	500	-
Non-volatile matter extractable by 40/60 petroleum spirit	200	-
Anionic detergents	50	Sodium Lauryl Sulphate
Non-ionic detergents	50	Cobalt Thiocyanate active substances
Total Mercury	1 ug/l	Hg
Total Cadmium	1 ug/l	Cd

The analytical method used to determine the concentration of the constituent in any sample shall be that method used from time to time by Northumbrian Water Group's analyst or agent. The

method will be a Standing Committee of Analysts or equivalent method, where “equivalent” relates to the same accuracy and precision. All monthly compliance samples will be analysed by Sembcorp UK Limited, a UKAS accredited lab.

7. Site plans (Application Form, Part C2, Section 5a)

You have not submitted a drainage plan for the operation of the Polymers Recycling Plant and wastewater treatment plant.

You must submit a drainage plan for the operation of the Polymers Recycling Plant and wastewater treatment plant.

SLR Response

The site’s drainage plan has been included as Enclosure 6.

Yours sincerely
SLR Consulting Limited



Samantha Pople
Principal – Environment Management, Permitting and Compliance

CC
Graham Peacock – Biffa Waste Services Limited
Lana Mcardell – Biffa Waste Services Limited

Enc
Enclosure 1 – Fee Abatement Letter and EA Form Part C2
Enclosure 2 – Updated ERA
Enclosure 3 – COTC
Enclosure 4 – Updated Site Condition Report
Enclosure 5 – Trade Effluent Discharge Consent
Enclosure 6 – Site Drainage Plan