From:	Dylan Thomas
То:	Hemsley, Tamara
Cc:	Wakefield, Charlie; Venning, Sarah; Russell, James; Burston, Kellie-marie
Subject:	RE: Skelbrooke Landfill variation DfR
•	
Date:	27 March 2025 14:42:54
Attachments:	image001.png
	image002.png
	image003.png
	image004.png
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	image006.png
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	image318092.png
	image997787.png
	<u>image742896.png</u>
	image062271.png
	image704249.png
	image087821.png
	image894838.png

Tamara,

Thanks for sending through the revised draft of the permit. On review, we have noted the following:-

- Table S1.3 PO1 the wording of the condition suggests that you believe that the
 positions of boreholes SK15-SK19 shown in the application documents are 'proposed' for
 installation. The boreholes were installed some time ago, we believe as part of the
 original permitted landfill requirements, therefore their positions are now fixed. FCC are
 currently undertaking a more detailed review of the position of SK15 and SK17 relative to
 the direction of groundwater flow locally. Can this pre-op measure be removed or altered
 to facilitate the current installed status of the boreholes?
- 2. Table S1.3 PO2 and Table S3.1 baseline monitoring has already commenced on boreholes SK15-SK19 and it is anticipated that that a suitable number of datasets will be available shortly after anticipated permit issue to support the derivation of compliance limits. An initial review of current available datasets has indicated that not all the parameters listed in Table S3.1 have been routinely monitored at these installations, specifically arsenic. It is understood that the parameters listed in Table S3.1 are based on the priority species selected for assessment in the HRA. However, it is preferred that the parameters against which groundwater compliance limits are derived are subject to the selection as part of the review prepared under the pre-operational measures instead of being prescribed in Table S3.1. Alternatively, at the very least, as arsenic represents the only hazardous substance listed in Table S3.1 it is proposed that this parameter is swapped for another hazardous substance (i.e. lead), for which a greater number of datasets will be available to support discharge of PO2 after issue of the permit.

Additionally, borehole SK19 is only installed to a shallow depth and is not currently yielding any water for monitoring purposes and is unlikely to be suitable as a groundwater monitoring installation. Can this borehole reference be removed from all groundwater monitoring schedules. The narrative against PO2 also needs to be adapted to recognise the current installed status of the relevant boreholes.

We'll be happy to discuss any of the above matters further should it help getting this application over the line.

Regards

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From: Hemsley, Tamara <tamara.hemsley@environment-agency.gov.uk> Sent: 20 March 2025 09:25

To: Dylan Thomas <Dylan.Thomas@thesiriusgroup.com>; Burston, Kellie-marie <kellie-marie.burston@fccenvironment.co.uk>

Cc: Wakefield, Charlie <charlotte.wakefield@environment-agency.gov.uk>; Venning, Sarah <Sarah.Venning@environment-agency.gov.uk>; Russell, James <James.Russell@environment-agency.gov.uk>

Subject: RE: Skelbrooke Landfill variation DfR

Dylan, Kellie – Marie,

Please see below the responses added in red to your questions below.

Please also find attached the final draft variation notice with the changes highlighted in yellow. If you notice any errors in the draft variation notice, please can you let me know by 27 March or earlier if possible – so that the variation notice can be issued.

Kind regards

Tamara

Tamara Hemsley BSc (Hons) MSc

Senior Permitting Officer (Waste Deposit Team) Permitting – National Regulation and Monitoring **Environment Agency** | Lateral, 8 City Walk, Leeds, LS11 9AT

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<u>tamara.hemsley@environment-agency.gov.uk</u> Mobile: 07770 792744 **Help us to improve our service and complete our customer survey – click <u>NPS Survey</u>**

From: Dylan Thomas <<u>Dylan.Thomas@thesiriusgroup.com</u>>
Sent: 10 January 2025 18:01
To: Hemsley, Tamara <<u>tamara.hemsley@environment-agency.gov.uk</u>>; Burston, Kellie-marie <<u>kellie-</u>marie.burston@fccenvironment.co.uk>

Cc: Wakefield, Charlie <<u>charlotte.wakefield@environment-agency.gov.uk</u>>; Venning, Sarah <<u>Sarah.Venning@environment-agency.gov.uk</u>>

Tamara,

Please find attached a commented version of the draft permit variation notice forwarded on 19th December 2024. I've also listed the key comments below for ease of reference.

- 1. **Introductory Note:** the total volume of imported wastes required to restore the extension area is 224,000m3. The remaining 6,000m3 (of the overall 230,000m3) will be from regrading of existing materials around the edges of the void. This amendment has been made.
- 2. **Registered Office Address**: addresses need to be updated to the 3 Sidings Court, White Rose, Way, Doncester, DN4 5NU. This amendment has been made.
- 3. Conditions 2.5.1-2.5.2 and Table S1.1: As specified in the agreed Closure Plan, no wastes were disposed at the site under the current permit. The landfill void originally permitted under this permit will now be wholly superseded by the DfR Activity. Should this variation application result in the DfR superseding/replacing the landfill activity? We cannot make this amendment at this late stage in the application as this would require an additional application form and fee. Indications show that this could be covered by an application to partially surrender the permit to remove an activity which has not commenced (£770 fee). If you submit this application it should be relatively quick to determine.
- 4. **Condition 2.5.5**: Dwg ESSD4 doesn't include the final levels. These contours are shown in Dwgs ESSD5 (rev1), WRP01 (rev 2) or HRA1 (rev3). ESSD5 (rev1) does not contain proposed restoration contours so I have included WRP01 (ERV2) in the permit.
- 5. **Condition 2.6.5-2.6.6:** incorrect/invalid conditions referenced. This amendment has been made.
- 6. **Table S1.2:** updates to report references and dates required in lieu of recent submission in repose to the Request for Further Information issued on 5th Dec 2024. This table has been updated with the latest submissions
- 7. Table S1.3 PO1: The operator will also be testing groundwater with the void as it is filled. Is this not suitable as a monitoring point? The activity has the potential to discharge contaminants to groundwater and therefore under EPR2016 Schedule 22 para 7 (5) "A permit may only be granted if the regulator has checked that the groundwater (and, in particular, its quality) will undergo the requisite surveillance". The application states that the water in the flooded void, which includes surface water from the adjacent landfill, is failing existing compliance limits. Furthermore, following completion of filling there will be no groundwater within this void. For these reasons, the water quality of the void is not acceptable for requisite surveillance. The groundwater monitoring boreholes are required to be installed and compliance limits derived prior to waste being accepted at this site.
- 8. **Table S2.1:** total waste accepted per year will be 224,000 tonnes. Total for the site overall will be 448,000 tonnes. These quantities have been added to the table.
- 9. **Table S2.2**: total waste accepted per year under this table for the construction of haul roads will be 5,000 tonnes. Total for the site overall will be 5,000 tonnes. These quantities have been added to the table.
- 10. Table S3.1: elevated concentrations of AmmN and CI concentrations have been observed in the lagoon waters in recent times, although only Amm N concentration currently exceeds the compliance limits set out in the main landfill permit (as is currently proposed to be set for this permit). In the lieu of the elevated concentrations, it is proposed that alternatively compliance parameters and limits are proposed. Further details are presented below. See response below regarding table S3.1.
- 11. It is not possible to use monitoring on the incoming surface water to provide background contaminant concentrations due to both the flooded void containing groundwater and

surface, and inertia in the contaminant concentrations relative to surface water inputs.

- 12. In conclusion, it appears to us that there is no viable method of setting defensive compliance limits on the lagoon water at this time and consequently the compliance limits for the lagoon should be removed. The monitoring of the water quality will still be required at a monthly frequency in accordance with Table S3.3.
- 13. **Schedule 7**: the site plan displays several different coloured boundaries. It would therefore be of benefit including the key/legend to distinguish what each boundary represents. A legend has been added.

Alternative Surface Water Compliance Limits (Table S3.1).

A review of ammoniacal nitrogen and chloride concentrations recorded within the lagoon waters in recent times has indicated increased concentrations, with ammoniacal nitrogen concentration exceeding the compliance limit of 1.2mgN/l proposed for this permit. Initial reviews of other parameters have also highlighted increasing concentration trends. The source of these increases has yet to be fully investigated, but it currently considered that the most likely contributors are the adjacent unlined Doncaster MBC landfill (known to be impacted local groundwater quality) or agricultural run-off from surrounding fields. Alternative compliance parameters and limits are there proposed to ensure that permit compliance considers impacts from the DfR activities only. Consequently, it is proposed that the sulphate is selected as appropriate parameter that is representative of the waste streams being deposited and is not significantly influenced by any other contamination sources locally.

As shown in the attached spreadsheet (*Ref.: WR7640/14/03.R0*), sulphate concentrations recorded in the quarry extension void waters (Monitoring Point Ref.: SKLAGOON) since 2012 has typically returned concentrations of between 350-400mg/l (Max: 405mg/l), with a reducing trend observed since late 2020 (with a subsequent peak concentration of 324mg/l). To protect surface water quality, it is proposed that a compliance limit is set at the current Environmental Quality Standard for freshwater of **400mg/l**.

Wave reviewed the additional surface water monitoring data and concluded that it exhibits increasing concentrations in all parameters including mobile metal nickel. The exception is sulphate which the data shows_has decreasing concentrations over the same time period. It is likely this is a reflection of natural attenuation co-metabolism potentially occurring. The overall water quality indicates that any impact from the permitted activity is highly unlikely (given the restricted waste codes) to be discernible above the background contamination.

The increasing trends observed in the monitoring data would also prevent the use of a condition requiring the activity not to make the existing contamination any worse, as the increasing trends in background contamination would mask any increase from the permitted activity.

It is not possible to use monitoring on the incoming surface water to provide background contaminant concentrations due to both the flooded void containing groundwater and surface, and inertia in the contaminant concentrations relative to surface water inputs.

In conclusion, it appears that there is no viable method of setting compliance limits on the lagoon water and consequently, therefore all of table S3.1 has been removed. The monitoring of the water quality will still be required at a monthly frequency in accordance with Table S3.3.

Regards

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From: Hemsley, Tamara <<u>tamara.hemsley@environment-agency.gov.uk</u>> Sent: 19 December 2024 16:52

To: Dylan Thomas <<u>Dylan.Thomas@thesiriusgroup.com</u>>; Burston, Kellie-marie <<u>kellie-</u>

marie.burston@fccenvironment.co.uk>

Cc: Wakefield, Charlie <<u>charlotte.wakefield@environment-agency.gov.uk</u>>; Venning, Sarah

<<u>Sarah.Venning@environment-agency.gov.uk</u>>

Subject: RE: Skelbrooke Landfill variation DfR

Hi Dylan, Kellie,

An extension to 10 January 2025 is fine - thank you. Please find attached the amended draft variation notice which changes the monitoring requirements in table S3.1 and S3.2 (the changes are highlighted in yellow) and no longer requires the proposal of compliance limits for table S3.2.

Please can you also answer the following question:

Guidance(Landfill operators: environmental permits - Landfills for inert waste - Guidance - GOV.UK) on the tipping into water indicates that this activity is associated with the construction of a geological barrier/subgrade. Tipping directly into wates is only permittable under Schedule 22 8(f) for construction purposes. It is unclear how the application meets this requirement. Provide details of any specifications related to the construction aspect to demonstrate that the final landform is suitable for the intended purpose.

Kind regards

Tamara

Tamara Hemsley BSc (Hons) MSc

Senior Permitting Officer (Waste Deposit Team) Permitting – National Regulation and Monitoring **Environment Agency** | Lateral, 8 City Walk, Leeds, LS11 9AT

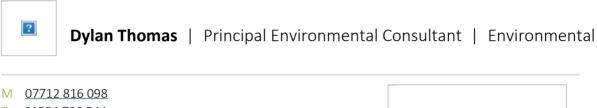
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tamara.hemsley@environment-agency.gov.uk Mobile: 07770 792744 Help us to improve our service and complete our customer survey – click <u>NPS Survey</u> From: Dylan Thomas <<u>Dylan.Thomas@thesiriusgroup.com</u>>
Sent: 18 December 2024 08:34
To: Hemsley, Tamara <<u>tamara.hemsley@environment-agency.gov.uk</u>>
Cc: Burston, Kellie-marie <<u>kellie-marie.burston@fccenvironment.co.uk</u>>; Wakefield, Charlie
<<u>charlotte.wakefield@environment-agency.gov.uk</u>>; Venning, Sarah <<u>Sarah.Venning@environment-agency.gov.uk</u>>
Subject: RE: Skelbrooke Landfill variation DfR

Tamara,

Many thanks for sending through the draft permit for review. In lieu of forthcoming office closures and leave commitments over the festive period we'd like to request an extension to the response deadline to **Friday**, **10**th **January 2025**.

Regards



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From: Hemsley, Tamara < tamara.hemsley@environment-agency.gov.uk >

Sent: 11 December 2024 16:29

To: Dylan Thomas < Dylan. Thomas@thesiriusgroup.com >

Cc: Burston, Kellie-marie < kellie-marie.burston@fccenvironment.co.uk >; Wakefield, Charlie

<<u>charlotte.wakefield@environment-agency.gov.uk</u>>; Venning, Sarah <<u>Sarah.Venning@environment-</u>

<u>agency.gov.uk</u>>

Subject: Skelbrooke Landfill variation DfR

Dylan,

Please find attached the draft variation notice for Operator review.

Regarding table S3.2 - please establish surface water baseline conditions for the Lagoon (monitoring ref: SKLAGOON) and propose compliance limits reflective of the waste acceptance criteria to ensure no deterioration (from baseline) – and provide justification based on monitoring data for the limits proposed. The compliance limits are required for the duration of waste tipping for the parameters listed as tbc in table S3.2. Please provide the information above by 2 January 2025 or earlier if possible. If you notice any errors in the draft variation notice – please also let me know by 2 January 2025 or earlier if possible.

If you have any queries, please do not hesitate to contact me.

Kind regards

Tamara

Tamara Hemsley BSc (Hons) MSc

Senior Permitting Officer (Waste Deposit Team) Permitting – National Regulation and Monitoring **Environment Agency** | Lateral, 8 City Walk, Leeds, LS11 9AT

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