

Ms Anne Lucey
Office of Licensing and Guidance
Licensing Unit
EPA
Johnstown Castle Estate
Co Wexford

30th August, 2022

Unsolicited further information relating to Licence Review application for Knockharley Landfill Reg Ref No.

Dear Ms Lucey,

On behalf of Knockharley Landfill Limited I wish to submit some additional information in addition to the information already submitted as part of our licence review application (W0146-03).

1. Solar Panel installation

We wish to inform the Agency that planning was granted for the development of a 3MW solar farm to be installed on sections of the reclaimed landfill. Please see planning permission attached (Attachment 1).

As the Agency is aware, municipal solid waste is increasingly bio-stabilised prior to landfill. As a result there is significantly less putrescible waste entering Knockharley landfill than was considered normal a decade ago. As less free organic material ends up in landfill the production of landfill gases also decreases. The landfill gas yield is declining and will continue to decline over the next 5-10 years. As gas declines so too does electrical generation.

The intention of the solar development is to make use of the existing grid connection, which currently serves the landfill gas conversion facility, and to gradually replace landfill gas generation with solar generation.

We request that the reviewed licence enables the installation of the solar farm in accordance with the attached grant of planning permission, without the need for a further licence review.

2. Bioverda

We wish to inform the Agency that the conversion of captured landfill gas into electricity on site is conducted by Bioverda, which is a separate legal entity to Knockharley Landfill Limited (KLL). The Companies Registration Office Number for Bioverda is 218386

Bioverda is a company that specialises in the conversion of landfill gas to electricity. They operate on a number of closed landfills, including Dunsink, Arthurstown and KTK.

Bioverda operate the gas conversion to electricity within a fenced compound located close to the main offices on the eastern side of the landfill footprint.

3. External Drains

Please see attached (Attachment 2&3) maps showing the layout of the existing external drains and the proposed realignment of same.

The external agricultural drains pre-date the development of Knockharley Landfill and form part of the local agricultural land drainage network. These agricultural drains were historically constructed as land improvement drains by surrounding landowners and allow drainage of fields to nearby streams. They remain completely separate to the landfill surface water drainage network.

The development of the landfill has eliminated some drains and has necessitated the diversion of some of these agricultural drains around the landfill void.

The diverted drains have been kept separate from landfill surface water swails. There is no hydrological link between the landfill, landfill surface water drains and these agricultural drains.

We are not responsible for the water quality in these drains as they enter our site, and are merely facilitating land drainage and field run-off, from areas upstream of our facility, to areas downstream of our facility.

We propose to conduct a weekly visual inspection of these drains, on an ongoing basis, to ensure that there is no negative impact on these drains caused as a result of landfill operations.

4. On Site SCADA systems

4a. Knockharley Landfill

See attached (Attachment 4a)

4b Bioverda

See attached (attachment 4b)

5. Leachate Monitoring Maps

Please see attached (attachment 5) the new leachate monitoring maps showing the leachate monitoring points as currently constructed (LP1 to LP24) marked. The final location of LP 25-32 will only be finalised as the IBA cells are developed.

- Update Table A2 to include total permitted void space for waste, haz waste and for IBA

Please see below a proposal for an updated Table A2 to reflect the hazardous and IBA cells.

Table 1: Estimated IBA VOID – Less Shed

Item	EIAR Volume M ³	GOLDER Volume M ³
IBA Cells 29 - 32	645,331	1,012,168
IBA Wedge Cell 33	245,112	303,784
Total	890,443	1,315,952

Table 2: Estimated IBA VOID – With Shed

Item	EIAR Volume M ³	GOLDER Volume M ³
IBA Cells 29 - 32	Not Applicable	820,905

Table 3: Estimated Waste Cells VOID from Q2 2022

Item	GOLDER Volume M ³
Waste remaining Void Cells 17 - 28	1,747,230

- Drawing 000

Please see attached drawing 000, which formed part of the EIAR (attachment 6).

- New drawing showing PSW10 actual location

Please see attached (attachment 7) which shows the location of PSW10, marked in blue, to the North East of cell 24.

- New drawing showing cross section of landfill construction and how it will look when capped.

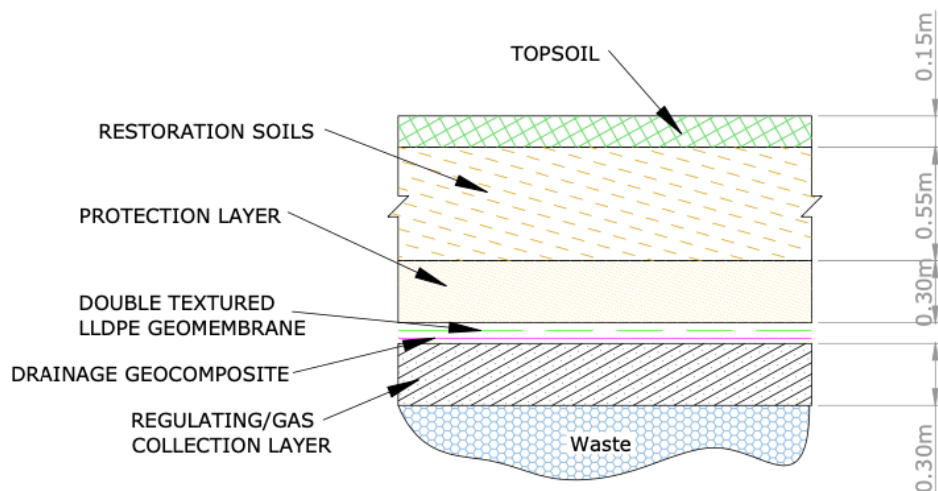
See attached (attachment 8a and 8b)

10. SEW for desulphurisation plant.

An SEW has been submitted to, and approved by, the Agency's OEE already. Please see attached SEW for information (attachment 9).

11. Operation of mobile flares

Landfill gas is captured under the landfill's cap (detail drawing below).



DETAIL 2: WASTE CELLS CAPPING PROFILE

SCALE 1:15 A0

Landfill gas collected under the landfill cap is transported via an extensive series of overground and underground pipes and brought back to Bioverda's gas engines for combustion and conversion into electrical energy.

On occasion, some of the connections on the landfill gas pipework can develop leaks and require repairs. When repairs are required, local sections of pipework are isolated from the main network to facilitate repairs to the source of the leak.

In keeping with best practice, during repair work in order to prevent leakage of untreated landfill gases and to prevent fires, a local gas flare is installed for the duration of the repair process.

Any gases in the damaged section of pipework are diverted to the temporary flare. This action provides a safe working environment, prevents odours and ensures that any landfill gas is converted into CO₂ and odours are minimised.

Should you require any clarifications with regard to the above and attached, please do not hesitate to contact me.

Yours sincerely.

A handwritten signature in blue ink, appearing to read 'David Tobin', with a stylized, cursive script.

David Tobin
Circular Economy and Sustainability Director
Beauparc Utilities
On behalf of Knockharley Landfill Limited