

	OFFICE OF ENVIRONMENTAL SUSTAINABILITY
REPORT OF THE TECHNICAL COMMITTEE ON REPRESENTATIONS MADE ON A DRAFT CERTIFICATE OF AUTHORISATION	
TO: Each Director	
FROM: Technical Committee	Environmental Licensing Programme
DATE: 26 November 2020	
RE:	Representation on draft Certificate of Authorisation issued to Cavan County Council for a closed landfill at Cootehill Landfill, Pottleboy, Cootehill, County Cavan. Certificate of Authorisation Register Number H0020-01.

APPLICATION DETAILS	
Type of facility:	Closed landfill as defined in the Regulations ¹ .
Application received:	17 July 2015
Draft Certificate issued:	12 February 2020
First party representation received:	11 March 2020

1. Background to this report

The site is located 0.8km south of Cootehill in the townland of Pottleboy and covers a total area of 0.18ha, of which 0.10ha is located on private land. There are domestic dwellings to the north and south of the closed landfill, along with a community building to the north and a crèche to the north-west. There is a forested area to the south-east and agricultural lands to the west and east of the site. The landfill was operational from 1967 – 1975 and comprised of approximately 6,003 tonnes of municipal solid waste (MSW) and construction and demolition waste (C&D). Waste has been removed from the site and remediation works have been carried out. Cavan County Council intend to use the site as an amenity for the local community or businesses.

The Tier 2 risk assessment categorised the site as moderate risk (Class B) due to the following pollutant linkage:

- human health exposure pathway of off-site migration of landfill gas and emission into nearby houses.

¹ Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008 (S.I. No. 524 of 2008).

Four other linkages were identified as low risk:

- migration of leachate to surface waters;
- migration of leachate to private and public wells;
- migration of leachate to the underlying aquifer; and,
- migration of leachate to surface water dependent ecosystems.

Following waste removal and remediation measures, the risk category at the site was reduced to a low risk (Class C).

2. Consideration of the Representation

This report considers one valid first party representation from Cavan County Council in relation to a number of requirements set out in the draft Certificate of Authorisation which are summarised below.

The representation should be referred to at all times for greater detail and expansion of particular points.

The Technical Committee (TC) comprising of Anne Lucey (Chair) has considered all the issues raised in the representation and this report details the Committee's comments and recommendations following the examination of the representation.

2.1 Condition 2.3 Environmental Liabilities

The applicant considers that this condition is unnecessary given that substantial expenditure has already been made to remove all waste from the site in an effort to break source-pollutant-receptor (S-P-R) linkages. As a result, the applicant deems the site is no longer an environmental liability which warrants a financial provision.

Technical Committee's Evaluation:

The TC considers the matter of appropriate financial provision will be dealt with as part of the implementation and enforcement of the Certificate of Authorisation. Cavan County Council should liaise with the Agency (OEE) on this matter.

Recommendation: No change.

2.2 Condition 3.1 Site Notice Board (b) (iv) "the contact telephone in relation to the remediation works"

The applicant states that remediation works have already been completed and therefore regards the condition as not applicable. The applicant requests that the Agency removes this condition from the certificate of authorisation.

Technical Committee's Evaluation:

The TC considers the telephone number to be an important contact detail to be provided on the notice board. However, the TC acknowledges that the contact telephone referred to may be interpreted as relating to actual remediation works only, whereas the intent is that the contact telephone number is provided for all matters related to the remediation of the closed landfill site,

including the requirements set out in the Certificate of Authorisation. The TC therefore recommends the amendment of the condition to correctly reflect its intent.

Reason for Decision:

The Technical Committee propose to amend condition 3.1 (b) (iv) as set out below and has reached its decision having regard to the following reason:

- To provide clarity on the potential use of the contact telephone provided on the site notice board.

Recommendation: Amend condition 3.1 (b) (iv) to read as follows:

(iv) the contact telephone in relation to **the closed landfill site**; and

2.3 Condition 3.3 "...install four gas monitoring wells..."

The applicant notes that the Inspector's Report in relation to the draft certificate of authorisation states that gas was detected on the site after removal of the waste mass. The applicant considers the statement to be incorrect and references a number of points from the applicant's Validation Report to demonstrate times when no landfill gas was detected. The applicant regards the proposed installation of gas monitoring wells unnecessary and excessive and requests that the Agency removes this condition from the certificate of authorisation.

Technical Committee's Evaluation:

The Validation Report dated December 2016 states in relation to odour monitoring that "no methane readings above 100ppm were detected" during a full site walkover following completion of works, using a LMM analyser, on the 19th November 2015 and 14th December 2015. Whilst this statement implied that methane levels, albeit low, were present below 100ppm, no actual monitoring data or interpretation of results were provided and contrary to the representation, the instrumentation limit of detection of 100ppm was not noted along with the result. In relation to landfill gas monitoring, there are no specific details of what monitoring was carried out and there are no recorded results provided, the report merely states "Landfill gas monitoring was carried out following the works. There was no evidence of landfill gas on site". Additionally, the Agency did not receive any results from monitoring conducted on the 9th March 2020 as noted in the representation.

The TC acknowledges that the removal of the waste body from the site should be sufficient to break the S-P-R linkage of landfill gas to nearby receptors. However, the achievement of this objective needs to be adequately demonstrated through monitoring. Taking into account the guidance of the Landfill Monitoring Manual² for monitoring gas trigger levels for boreholes outside of the waste body, the TC proposes that monitoring is carried out in the 5 off site monitoring locations identified in the Tier 3 report at the Square and Round Eircom Service Duct, the Surface Water Gully, the Foul Water Manhole and the Surface Water Manhole. This will help to confirm that there is no lateral migration of gas from the site to nearby receptors from any potentially missed waste material and will negate the need to install the proposed on site gas monitoring wells. Additionally, it is proposed to reduce the monitoring requirement to a biannual basis for a two year period. The TC also notes that in accordance with condition 3.8, the location, frequency, methods and scope of monitoring may be further amended with the agreement of the Agency if required.

² EPA (2003) Landfill Manuals Landfill Monitoring, 2nd Edition.

Reason for Decision: The TC propose to remove condition 3.3 and amend condition 3.7(c) and 3.15(iii) as set out below and has reached its decision having regard to the following reason:

- To enable proportional monitoring to be carried out utilising existing infrastructure.

Recommendation: Amend condition 3 as follows:

Delete condition 3.3

Amend condition 3.7(c) as follows:

(c) monitoring on a **biannual** basis **over a 2 year period** to detect the presence and concentration of landfill gas in **the following locations**;

Monitoring Location Point	Grid Reference
1. Eircom Service Duct (Square)	E 260606 N 313525
2. Eircom Service Duct (Round)	E 260602 N 313526
3. Surface Water Road Gully	E 260579 N 313558
4. Foul Water Inspection Manhole	E 260575 N 313578
5. Surface Water Inspection Manhole	E 260600 N 813574

Amend condition 3.15(iii) as follows:

(iii) The local authority shall, as part of the communications programme, publish **landfill gas**, groundwater and surface water monitoring data bi-annually in a manner accessible by the public.

2.4 Condition 3.4 "...compile a validation report..."

The applicant regards the condition as not applicable as a Validation Report was already submitted to the Agency. The applicant requests that the Agency removes this condition from the certificate of authorisation.

Technical Committee's Evaluation:

The TC acknowledges the views expressed in the representation taking into account that the applicant considers that the validation report has already been submitted. However, in accordance with section 8.2.4 of the Code of Practice³, the verification report submitted must demonstrate that the S-P-R linkage(s) have been broken and that the remediation has been successful. The TC considers that this has not been adequately demonstrated considering the outstanding monitoring requirements for landfill gas proposed in section 2.3 above and consequently recommends no change to the condition.

Recommendation: No change.

³ EPA (2007) Code of Practice Environmental Risk Assessment for Unregulated Waste Disposal Sites.

2.5 Condition 3.5 "...assess the results of all monitoring..."

The applicant considers environmental monitoring to be unnecessary as the site no longer contains waste and after remediation there was no evidence of environmental emissions. The applicant regards conditions on site to be akin to those of a green field site and requests the condition to be removed from the certificate of authorisation.

Technical Committee's Evaluation:

The TC considers that environmental monitoring is necessary to demonstrate that the remediation objectives have been achieved successfully and that there is no negative impact to the environment from any remaining residues or potentially missed waste material. The TC also notes that if required, condition 3.8 permits the location, frequency, methods and scope of monitoring, sampling and analyses to be amended with the agreement of the Agency following evaluation of test results. For this reason, the TC recommends no change to the condition.

Recommendation: No change.

2.6 Condition 3.7 (b) "...monitoring for leachate..."

The applicant states that there is no leachate generated due to the removal of the waste mass and the remediation of the site. The applicant regards the installation of leachate monitoring infrastructure to be unnecessary as a result and requests the condition to be removed from the certificate of authorisation.

Technical Committee's Evaluation:

The TC acknowledges that the low risk S-P-R linkage of leachate migration to surface water, private and public wells, the underlying aquifer and surface water dependent ecosystems has been further reduced following the removal of waste. Taking into account that no leachate was encountered during trial hole investigations prior to waste removal and the subsequent removal of waste from the site, the TC proposes to remove the requirement for biannual leachate monitoring from condition 3.7.

Reason for Decision: The TC propose to remove condition 3.7(b) set out below and has reached its decision having regard to the following reason:

- To provide for risk proportionate monitoring.

Recommendation:

Delete condition 3.7(b)

2.7 Condition 3.7 (c) "monitoring on a quarterly basis to detect the presence and concentration of landfill gas..."

The applicant refers to the previous comments outlined under Condition 3.3, in section 2.3 above, whereby the applicant notes a number of points from the Validation Report to demonstrate times when no landfill gas was detected on the site. This was noted as the applicant considered the Inspector's Report to be incorrect when stating that gas was detected on the site after removal of the waste mass.

Technical Committee's Evaluation:

The TC proposes to amend condition 3.7(c) as per section 2.3 above when addressing the applicant's request to remove the requirement to install four gas monitoring wells.

Recommendation: Amend Condition 3.7(c) as per section 2.3 of this report.

2.8 Condition 3.7 (d) "monitoring (sample, analyse and characterise) of water quality in the Pottleboy Stream..."

The applicant states that prior to waste removal off site a S-P-R linkage to surface water was not identified as a risk and the removal of waste has further ensured no linkage. The applicant also notes that the Inspector's Report states that the removal of waste resulted in the identified S-P-R linkages being broken. The applicant therefore considers that the rationale for monitoring the Pottleboy stream is unclear.

Technical Committee's Evaluation:

The TC notes that the Tier 3 report states that "The final landform must have watersheds which will direct surface water towards the surrounding surface water drainage system" and that "The capping and regrading of the landform will reduce the infiltration of precipitation and promote surface water run-off and drainage to the watercourse/drain on the Northern aspect of the landform". The TC acknowledges that a portion of the Pottleboy Stream is piped and that the waste has been removed from the site but considers that monitoring of water quality in the Pottleboy stream is necessary to ensure that there is no impact from remediation and regrading works. The TC again notes that if required, condition 3.8 permits the location, frequency, methods and scope of monitoring, sampling and analyses to be amended with the agreement of the Agency following evaluation of test results. For this reason, the TC recommends no change to the condition.

Recommendation: No change.

2.9 Condition 3.7 (e) "monitoring (sample, analyse and characterise) of groundwater from at least three groundwater monitoring boreholes..."

The applicant considers the rationale for the requirement to install at least three groundwater monitoring boreholes and their subsequent monitoring to be unclear. The applicant states that prior to waste removal off site a S-P-R linkage to groundwater was not identified as a risk and the removal of waste has further ensured no linkage. The applicant further notes that the Inspector's Report states that the removal of waste resulted in the identified S-P-R linkages being broken.

Technical Committee's Evaluation:

The TC notes that the site is located in a poorly productive aquifer with groundwater vulnerability classified as extreme. Having regard to guidance from the Groundwater Protection Responses for Landfills⁴, the appropriate response to the risk of groundwater contamination for this aquifer

⁴ EPA (1999) Groundwater Protection Responses for Landfills - Summary.

category is R2. The appropriate response guidance specifies that special attention must be given to existing wells down-gradient of the site and to the projected future development of the aquifer. The TC also notes from the submitted Validation Report that excavated soil recovered on site and imported soil were tested to ensure suitability prior to backfilling on site. However, no waste authorisation was in place and no-by product notification was made in relation to the imported soil and stone (350 tonnes of subsoil, 450 tonnes of topsoil and 150 tonnes of stone to facilitate drainage). The TC acknowledges that the waste body has been removed but regards the monitoring of groundwater to be prudent and appropriate when taking all aspects into account. It is therefore recommended that the condition is not amended. However, the TC again notes that if required, condition 3.8 permits the location, frequency, methods and scope of monitoring, sampling and analyses to be amended with the agreement of the Agency following evaluation of test results.

Recommendation: No change.

2.10 Condition 3.9 (c) "soil and stone imported for use in remedial, corrective or otherwise engineering works at the closed landfill shall be greenfield soil or stone or soil and stone of equivalent nature..."

The applicant states that the site has already undergone complete remediation with greenfield soil imported as outlined in an excerpt from the applicant's Validation Report. The applicant deems the condition unnecessary as no further works are proposed for the site.

Technical Committee's Evaluation:

The TC notes that the Tier 3 report states that although negligible, some settlement is expected on site, and condition 3.7(a), of the draft Certificate of Authorisation, requires a visual inspection of the landfill to ensure that the condition of the site has not deteriorated. It is also noted that the applicant intends to use the site as an amenity for the local community or businesses. The TC therefore considers the condition to be applicable to the remediation works completed to-date and any potential future works if required in relation to the site condition or intended use. For this reason, the TC recommends no change to the condition.

Recommendation: No change.

2.11 Condition 3.12 "well and borehole installation..."

The applicant refers to the previous comments outlined under Condition 3.7 (e), in section 2.9 above, whereby the applicant considers the rationale to install groundwater monitoring boreholes and their subsequent monitoring to be unclear. The applicant states that a S-P-R linkage to groundwater was not identified as a risk prior to or post removal of waste from the site and further notes that the Inspector's Report states that the removal of waste resulted in the identified S-P-R linkages being broken.

Technical Committee's Evaluation:

The TC addressed the applicant's representation in relation to condition 3.7 (e) in section 2.9 above. As the TC recommended no change to the requirement for groundwater monitoring, the requirements for the construction and protection of wells and boreholes as set out in condition 3.12 are applicable. The TC therefore recommends no change to condition 3.12.

Recommendation: No change.

2.12 Condition 3.13 "...clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off site points as required..."

The applicant states that there are no on or off site monitoring points as environmental monitoring was not deemed necessary for a remediated site with no S-P-R linkage. The applicant requests the condition to be removed from the certificate of authorisation.

Technical Committee's Evaluation:

The TC recommended that landfill gas monitoring should be carried out in a number of off site monitoring locations as per section 2.3 above. As a result, the requirements of condition 3.13 are applicable and recommended to be retained by the TC.

Recommendation: No change.

2.13 Condition 3.15 "communications programme..."

The applicant considers that the site is no longer a risk to any surrounding receptors as the excavation of the waste from the site has resulted in the complete removal of the S-P-R linkage. The applicant requests the condition to be removed from the certificate of authorisation.

Technical Committee's Evaluation:

The TC considers the communications programme to be an important and appropriate method to keep members of the public informed about the status and condition of the closed landfill and particularly in relation to monitoring data. The TC therefore recommends no change to condition 3.15.

Recommendation: No change.

3. Recommendation

It is recommended that the Board of the Agency grant a certificate of authorisation to the applicant

- (i) for the reasons outlined in the Draft Certificate of Authorisation,
- (ii) subject to the conditions and reasons for same in the Draft Certificate of Authorisation, and
- (iii) subject to the changes recommended in this report.

Signed

Anne Lucey

Anne Lucey

Inspector

for and on behalf of the Technical Committee

Date: 26 November 2020