

78-2.

Shannon

Environmental Protection Agency
 Office of Environmental Enforcement

Received 15 DEC 2004

Initials:



ENVIRONMENTAL PROTECTION
 AGENCY

15 DEC 2004

P. Hermansen

Sub (2)

Coolross, Rathcabbin, Roscrea, Co. Tipperary
 Tel: (0509) 39903/39946 • Mobile: (087) 6653156 - (086) 0572051

E.P.A.
 Johnstown Castle
 WEXFORD

14th December 2004

Dear Sir/Madam,

Shannon Vermicomposting make the following submission firstly on 78-2 application. Secondly on the overall none-compliance of 78-1 licence Ballaghveny Landfil site owned and run by North Tipperary County Council.

Observations by Arthur Cox Solicitors Environmental and Planning Specialists. Independent leachate lagoon test results and Ballaghveny Stream tests carried out by Treatment Systems, Kilkenny, and CAL Laboratories Dublin.

Further E.P.A. reports.

Leachate runoff into Ballaghveny Stream is combining with surface water runoff. The Ballaghveny stream leads to the Ollatrim leading to Lough Derg, leading to the Shannon. Drinking water is taken from the Shannon Lough Derg is highly noted as extremely polluted.

Nenagh Treatment plant accepts leachate from Ballaghveny Landfil, Ballaghveny Landfil accepts sewage sludge from Nenagh Treatment Plant.

As can be read from the CAL and Treatment Systems analysis reports, heavy metal concentrations are high as is ecoli, as would be expected from the system employed a 'never ending circle'.

Intertwined in this leachate is the intake of various biodegradable materials. There is no doubt the leachate can be treated satisfactory and ecoli eradicated, heavy metals extracted and each batch rendered environmentally sound.

The present system adopted by North Tipperary County Council in corporation with Nenagh Sewage Treatment Plant would be incapable of dealing with the leachate from Ballaghveny Landfil.

There is no holding tank at Nenagh Treatment Plant to filter small amounts of the leachate into the plant, no form of pre-balancing takes place the leachate is batch fed directly into the system.

The only result can be mass amounts of leachate passing through the plant into the Nenagh River into Lough Derg and into the Shannon.

Company Registration Number: 331877
 Directors: P.J.C. Ogg, Managing Director; Claire Holdsworth, Director

Two lots of serious contamination derived from both Ballaghveny Landfil and Nenagh Treatment Plant.
This environmental problem needs to be addressed.

Yours Sincerely,

Peter Ogg

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Ballaghveny Landfill – Waste Licence Review Application
(Ref.: 78-2)

Submission

Shannon Vermicomposting Limited of Coolross, Rathcabbin, Roscrea, County Tipperary hereby make the following submissions on the application to review the waste licence for Ballaghveny Landfill (Ref.: 78-2).

1. **Applicable Law**

This application appears to have been first made on 10th March 2004, after informal discussions with the Agency during 2003. However, on 6th July 2004, the Agency advised the applicant that the application does not comply with article 12 of the Waste Management (Licensing) Regulations. This amounts to a determination that the applicant did not supply the fundamental and mandatory requirements of a waste licence application. The application was therefore invalid.

However, under article 14, the Agency does retain a discretion either to return such an invalid application or to request further information from the applicant to make the application valid. The Agency chose to request further information. Only after receipt of this information can the application be considered. Indeed, only after receipt of this information is the application valid and properly made.

No response had been received to the Agency's request for information on or before 12th July 2004. Accordingly, this application has been made after 12th July 2004.

This is important because on that date, the remaining provisions of the Protection of the Environment Act, 2003 were commenced and the new Waste Management (Licensing) Regulations 2004 (SI No 395 of 2004) came into operation.

We request the Agency to ensure the applicant properly complies with its obligations in this respect, without exception.

2. **Landfill Directive**

The applicant acknowledges that it comprises a non-hazardous landfill and suggests that certain measures will be implemented before 16th July 2009 in order to comply with certain waste acceptance restrictions.

This 2009 deadline is particularly important to certain prohibitions and restrictions on the kinds of wastes that may be accepted at a landfill facility, under the Waste Licensing Regulations that implement European law requirements under the Landfill Directive (1999/31/EC).

The 2009 deadline only applies to landfills that are neither "new landfills" nor hazardous waste landfills. A more immediate deadline applies to such "new landfills" and hazardous waste landfills.

Fortunately, for clarity at least, the definition of "new landfill" has not changed under the 2004 Regulations. Accordingly, these are defined to include a landfill that is

“subject to a waste licence ... that was or is granted, on or after 16th July 2001”. It is clear from sections 5 and 37 of the Waste Management Acts, 1996 to 2003 that the expression “waste licence” includes a revised waste licence.

The definition of “new landfill” does not contain any exception for revised licences. This is significant.

Upon grant of a revised licence, and even allowing the most favourable interpretation to the applicant, these waste acceptance restrictions apply immediately to such parts of the landfill as are subject to that new revised licence.

In the instant case, this would certainly include the proposals both to accept untreated sludge and to accept almost seven times more C&D waste.

Accordingly, the provisions of article 49(5) of the 2004 Regulations (which fortunately, for clarity, is in substance the same as article 53 of the old regulations) apply. This means that “waste that has not been subject to treatment ... shall not be accepted or disposed” after 16th July 2001 (for a new landfill facility).

It is clear that the proposals regarding condition (5.12.3) are specifically directed to permit the acceptance of untreated sludges. This proposal is considered further below. However, by way of preliminary submission, it is clear that the applicable waste licensing regulations expressly prohibit the acceptance of these kinds of sludge under a revised licence for this facility.

The same reasoning applies with equal force to the proposals to accept what appears to be mixed C&D waste. Obviously, if this material was inert, the exception for inert wastes that are incapable of treatment would apply. This is clearly not the case for the applicant’s proposals. The proposal describes clearly how these waste materials will in fact be treated on site and so are *prima facie* technically capable of treatment. The exception cannot therefore apply.

We call on the Agency to reject the proposals regarding untreated sludges and C&D waste as contrary to the prohibitions described in article 49(5) of the 2004 Regulations (which, as noted, is in substance the same as article 53 of the old regulations).

3. First Proposal – Increased Height

There is conflict in the Non-Technical Summary regarding to what cells an increased height will apply. At page (iv) reference is made to cell nos. 3 to 5, but page (v) refers to cell nos. 1 to 5. This confusion is repeated in the main application (compare page 10, “the proposed (sic) increase in the final restored height of cells 1-5”). The public notices relating to this application do not provide any clarity on this issue. Notwithstanding this, the following more substantive issues arise.

3.1 Agency Function

It appears from the application that these cells are already at or close to the height for which this application has been made. Indeed, they have exceeded the maximum levels permitted under condition (8.2) of the existing licence for some considerable time. This has been recognised by the Agency in several

Audit and Inspection Reports (including ones dated 11th June and 21st July 2003).

With respect, the Agency is being presented with a *fait accompli* whereby the applicant has already carried out the subject matter of the application before any decision, or even a proposed decision, has been made.

This presents serious issues for consideration by the Agency.

Unlike in planning law, there appears to be no provision under the Waste Management Acts, 1996 to 2003 for retention of unauthorised waste activities. It is thus clear that this breach of the existing licence conditions cannot be remedied by the current application.

Further, the application clearly amounts to an admission by the applicant that it is not currently in compliance with the existing conditions that apply. This presents the Agency with certain conflict arising from its parallel licensing and enforcement functions under the legislation.

3.2 Assessment of Proposal

Only the visual impact of the proposed increase in height has been meaningfully addressed in the application. As already noted by the Agency in its article 12 request for information, the summaries contained in the application do not accurately reflect the underlying report from Mitchell & Associates.

It is quite disingenuous of the applicant to attempt to reduce the assessment of this proposal to a comparison of photomontages. This is because the increase in height by 6 metres represents 40,000m³ volume of waste. This clearly gives rise to more concerns than simply visual impact. Although the applicant might wish to confine the Agency's assessment, this is neither appropriate nor lawful.

Wrongful Acts

The application suggests that relocating the waste (which is admitted to be currently in breach of the existing waste licence) would be too onerous and so therefore a revised licence should be granted. This amounts to a submission that apparently wrongful acts on the part of the applicant somehow justify tolerance from the Agency. This cannot be sustained.

Management Competence

The suggestion that relocating this waste would pre-empt a waste crisis must be overstated. If it is not overstated, the competence of the management of the facility must be called into question. Local media has recently reported that a EUR 2 million contract for three new cells has been signed. This should certainly provide the necessary capacity. The principal justification for the increase in height is thus far from robust. The complaint that it would have financial implications merits further consideration below.

The justification that relocating this waste would impact on the applicant's ability to manage the facility is offered without any explanation. Simply put, how can the management of large volumes of waste pose difficulties for an applicant that claims to have sufficient experience in waste management to operate a landfill of this scale?

Unproven Capping Methods

It is clear from the application that the applicant has been limited in the capping methods available to it, by reason of its failure to comply with the height requirements of the existing licence. With respect, the methods now proposed for capping these cells are not proven. As the Agency will be aware, the final capping of landfill cells is central to the rehabilitation and restoration of such facilities. Indeed, this would also compromise the landscaping proposed for the facility.

Without proven methods for cell capping, the risk of environmental pollution cannot be dismissed.

Inadequate Visual Assessment

A cursory review of the photomontages presented with the report of Mitchell & Associates clearly illustrates the applicant's misunderstanding of that for which it must now apply. By virtue of Condition (8.2) of the current licence, the permitted height of the cells in issue is 114mOD. The so-called existing views plainly illustrate heights exceeding this level, for the reason that the applicant has never been in compliance with its licence. When compared with existing levels of about 120mOD, the proposed levels (of 120mOD) are never likely to represent any visual issue. However, this is not the relevant comparison.

What the applicant proposes is an increase from 114mOD to 120mOD. This should be clearly illustrated, so that a meaningful comparison can be made. With respect, the current views from the eastern boundary would be significantly improved if the applicant had complied with the post-settlement heights under the current licence.

4. Second Proposal – C&D Waste

As already described above, the proposals regarding C&D waste should be rejected as contrary to the prohibitions described in article 49(5) of the 2004 Regulations (which, as noted, is in substance the same as article 53 of the old regulations).

In any event, the commitment regarding the use of crushed aggregate and surplus soil is described with the qualification "initially". If the applicant intends to put the processed C&D waste to other purposes, these should be described.

The applicant suggests that this aspect to its proposals will not cause a negative visual impact. However, the report from Mitchell & Associates (Appendix C) does not refer to or assess the effect of the proposals regarding C&D waste: it appears that only the proposed increase in cell height was included in their limited brief.

The proposal does not commit to excluding mixed C&D waste. In order to meet the "recovery" targets expressed in the application, only selected kinds of C&D waste material should be admitted to the facility. This material should not have been treated or painted with dangerous substances or include significant amounts of metals, plastics, organics, soils, woods, rubbers etc.

5. Third Proposal – Treated Sludges

In accordance with Condition (5.12.3) of the existing waste licence, from 1st January 2004, only treated sludges may be accepted at the facility.

The applicant has requested an extension by one further year to 2005. Curiously, the applicant waited until the third month of 2004 before making this application. Furthermore, two-thirds of 2004 have already passed without any valid application having been made. Again, the Agency is being presented with a *fait accompli* whereby it appears the applicant will have carried out the subject matter of the application before any decision, or even a proposed decision, has been made.

This presents serious issues for consideration by the Agency. As noted above, there appears to be no provision under the Waste Management Acts, 1996 to 2003 for retention of unauthorised waste activities. Further, if the import of the application is an admission by the applicant that it cannot currently comply with the existing conditions, this presents the Agency with certain conflict arising from its parallel licensing and enforcement functions under the legislation.

As already described above, the proposals regarding acceptance of untreated sludges should be rejected as contrary to the prohibitions described in article 49(5) of the 2004 Regulations (which, as noted, is in substance the same as article 53 of the old regulations).

This proposal is offered without any justification under the Regional Waste Plan or applicable Government policies. The recent Draft Strategy Report on Biodegradable Waste (April 2004) illustrates local, regional, national and international policy in relation to biodegradable wastes, which include sludges such as these. Particular reference is made to Changing Our Ways (1998) and Delivering Change – Preventing and Recycling Waste (2002), which both articulate the European law imperative to divert such waste streams from landfill to alternative biological capacity. The application does not acknowledge this wealth of information that would recommend against acceding to the request being made by the applicant.

With respect, no relevant justification has been provided for this proposal and no basis has been offered on which the Agency would be entitled to lawfully accede to this proposal.

6. Miscellaneous

6.1 Financial Provisions

The limited information supplied in relation to financial provision, particularly with respect to aftercare, does not allow the Agency to properly assess the quality of the provision being made available. It should be noted that the

applicant has complained, in this application, that complying with the height levels of the current licence would create "serious financial implications to the local authority". How can this statement be reconciled with the bald and unsupported assertion that adequate financial provision has been made for aftercare and decommissioning?

Furthermore, the financial sustainability of this facility appears predicated on the continued acceptance of untreated sludges and increased acceptance of C&D waste materials, as proposed by this review. Having regard to the submissions above, this cannot be accepted as sustainable for the future or even for the short term.

With respect, the standards that would be applied to a private developer must fairly be applied to the public sector. It is possible that the applicant has misunderstood the provisions of the Waste Management Acts, 1996 to 2003 in this matter. Although section 40(4)(d) does not apply to local authorities, the provisions of section 40(4)(e) and 53 clearly do. Accordingly, there is no doubt that the Agency must consider whether or not the applicant has made adequate provision to secure the relevant financial liabilities and commitments. Indeed, the European law obligations that are transposed by these provisions do not provide any exemption for local authority projects; see Article 8(a)(iv) of the Landfill Directive (1999/31/EC).

The good word of an entity is never sufficient to satisfy the onerous aftercare and decommissioning obligations that arise with a landfill facility.

6.2 Leachate Management

In the past, the Agency has noted that levels in leachate wells were observed to exceed (by more than double) the levels permitted under the existing waste licence. This is of course unacceptable. Recent levels appear reduced, although there is no record or explanation of how this might be the case. If the leachate is being returned to the landfill cells, there is considerable risk for evaporation and creation and dispersal of heavy metals in dusts. The applicant has not addressed this potential. This is particularly disappointing where the continued acceptance of untreated sludges has been proposed.

6.3 Fitness of Applicant

Shannon Vermicomposting Limited has made a number of requests for information from the applicant, with respect to compliance with the existing licence, none of which have been replied to. This lack of transparency, together with the deficiencies the Agency have acknowledged in relation to compliance with documenting and reporting conditions of the existing licence, does not reflect well on the fitness of the applicant.

The proposals regarding increased cell height and untreated sludges are both overdue. The proposals regarding untreated sludges and C&D waste both conflict with the provisions of national law that implement the Landfill Directive. Again, this does not reflect well on the fitness of the applicant.

The series of non-compliances recorded by the Agency in several Audit and Inspection Reports (dated 11th June, 8th July and 7th October 2003 and 28th January 2004) must also cast doubt over the competence of the management of this facility.

Having regard to the above submissions regarding leachate management and financial provision, it is submitted that the Agency should consider the fitness of this applicant before acceding this application.

Environment & Planning Law Group
Arthur Cox
December 2004
(BNS)

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CAL

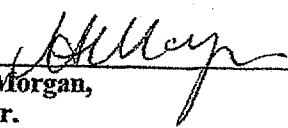
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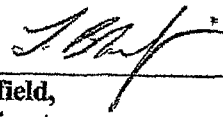
Mr. Peter Ogg,
Shannon Vermi Composting Ltd.,
Coolross,
Rathcavan,
North Tipperary.

Chemical Analysis Laboratories Ltd Confidential Report No.W14320

Report Number	W14320
Invoice Number	14320
Laboratory Number(s)	33173, 33174
Your Order Number	
Number of Samples	2
Sample Description	Leachate Collection & Surface Water Run-off Stream. Received 09/09/04
Date Reported	28/09/04

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Signed: 
Philip Morgan,
Director.

Signed: 
J. Bloomfield,
Scientific Director.

Note: Any services by CAL Ltd., are provided strictly subject to the limitations of liability as stated overleaf and this Report is issued solely on that basis.

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Mr. Peter Ogg,
Shannon Vermi Composting Ltd.,
Coolross,
Rathcavan,
North Tipperary.

Chemical Analysis Laboratories Ltd Confidential Report No.W14320

Report Number	W14320
Invoice Number	14320
Laboratory Number(s)	33173, 33174
Your Order Number	
Number of Samples	2
Sample Description	Leachate Collection & Surface Water Run-off Stream. Received 09/09/04
Date Reported	28/09/04

Laboratory No. 33173 Leachate Collection

Test	Result
Coliforms MPN	257 per 100ml
E. coli MPN	59 per 100ml
Enterococci MPN	35 per 100ml
Arsenic, Total as As	0.002 mg/l
Cadmium, Total as Cd	0.0020 mg/l
Chromium, Total as Cr	0.049 mg/l
Lead, Total as Pb	0.019 mg/l
Mercury, Total Hg	<0.0001 mg/l
Nickel, Total as Ni	0.14 mg/l
Zinc, Total as Zn	0.29 mg/l
C.O.D.	5,810 mg/l
B.O.D.	2,550 mg/l

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Mr. Peter Ogg,
Shannon Vermi Composting Ltd.,
Coolross,
Rathcavan,
North Tipperary.

Chemical Analysis Laboratories Ltd Confidential Report No. W14320

Report Number	W14320
Invoice Number	14320
Laboratory Number(s)	33173, 33174
Your Order Number	
Number of Samples	2
Sample Description	Leachate Collection & Surface Water Run-off Stream. Received 09/09/04
Date Reported	28/09/04

Laboratory No. 33174 Surface Water Run-off Stream

Test	Result
Coliforms	14,000 c.f.u./g
E. coli	2,000 c.f.u./g
Enterococci	14,000 c.f.u./g
Arsenic as As, dry weight	3.4 mg/kg
Cadmium as Cd, dry weight	<0.50 mg/kg
Chromium as Cr, dry weight	25 mg/kg
Lead as Pb, dry weight	38 mg/kg
Mercury as Hg, dry weight	<0.20 mg/kg
Nickel as Ni, dry weight	20 mg/kg
Zinc as Zn, dry weight	27 mg/kg

TREATMENT SYSTEMS LIMITED

Main Office, Canices Court, Dean Street, Kilkenny. Ph: 056 7763932 Fax: 056 7763933
 Laboratory, Canices Court, Dean Street, Kilkenny. Ph: 056 7763932 Fax: 056 7770058

CERTIFICATE OF ANALYSIS

Client: Shannon Vermicomposting Lab Ref. No: 4275/4276
 Date of Receipt: 19/08/04

Sample Ref	Description	Date of Sample
4275	Dump Lagoon	18/08/04
4276	Dump periphery	18/08/04

Parameter	Unit	4275	4276
pH		7.58	7.36
Suspended Solids	mg/l	243	407
COD	mg/l O ₂	7100	6261
BOD	mg/l O ₂	To Follow	
Conductivity	mS/cm	11.1	13
Total Phosphorous	mg/l P	9.5	11
Ammonia	mg/l N	500	345
Nitrate	mg/l N	8.2	6.3
Total Kjeldahl Nitrogen	mg/l TKN	675	465
Chloride	mg/l Cl ⁻	1165	1530

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Signed: _____

Certified: John V...

Leachate ~~Water~~ Water - Lab

TREATMENT SYSTEMS LIMITED

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Laboratory, Canices Court, Dean Street, Kilkenny. Ph: 056 7763932 Fax: 056 7770058

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Client: **Shannon Vermicomposting**

Lab Ref. No: **4275/4276**

Date of Receipt: **19/08/04**

Sample Ref	Description	Date of Sample
4275	Dump Lagoon	10/08/04
4276	Dump periphery	10/08/04

Parameter	Unit	4275	4276
pH		7.58	7.30
Suspended Solids	mg/l	243	407
COD	mg/l O ₂	7100	6260
BOD	mg/l O ₂	2500	1380
Conductivity	mS/cm	11.1	13
Total Phosphorous	mg/l P	9.3	11
Ammonia	mg/l N	500	345
Nitrate	mg/l N	8.2	6.3
Total Kjeldahl Nitrogen	mg/l TKN	675	465
Chloride	mg/l Cl	1165	1530
Copper*	mg/l	0.08	0.09
Zinc*	µg/l	900	1160
Cadmium*	µg/l	10	10
Chromium*	µg/l	30	30
Nickel*	µg/l	280	280
Lead*	µg/l	60	60

* Subcontracted

Signed: _____

Certified: _____



WASTE LICENCE AUDIT REPORT

Licensee:	North Tipperary County Council	Audit No:	2
Register Number:	WL 78-1	Date of Audit:	11/6/03
Location:	Ballaghveny Landfill, Ballymackey, Co. Tipperary.	Scheduled:	Yes
		(Date of letter)	3/6/03
Person Contacted:	Mr Frank O'Halloran	Previous Audit:	29/8/02
Position:	Senior Executive Engineer	Audit Criteria:	Waste Licence Register No. 78-1
Lead Auditor:	Cormac Mac Gearailt	Auditor:	John Gibbons

1. OPENING MEETING

The opening meeting commenced at and the following were in attendance:

- Representing North Tipperary County Council:

Frank O'Halloran (Senior Executive Engineer), Olga Broderick (Landfill Manager), Philip McGrath (Assistant Engineer)

- Representing the Environmental Protection Agency:

Cormac Mac Gearailt (Lead Auditor), John Gibbons (Auditor).

The lead auditor gave a brief introduction to the objectives and scope of the audit as outlined in the audit plan and to the procedure to be followed for the remainder of the audit. The agenda for the opening meeting as set out in the audit plan was adhered to.

2. EMP PRESENTATION

The presentation was given by Ms. Broderick. Ms. Broderick outlined the development of the landfill, local road improvements, new site infrastructure, training received by site staff, operation of new Civic Waste Facility, and imminent commencement of capping and restoration works.

2.1 Facility inspection and assessment

A tour of the facility was conducted, special attention was paid to leachate well levels, the working face, the civic waste facility, leachate handling arrangements, operation of the weighbridge, waste inspection and quarantine areas, and surface water arrangements at the facility.

2.2 Interviews

The following representatives were interviewed during the audit:

Name	Position	Issue
Frank O'Halloran	Senior Executive Engineer	Various
Philip McGrath	Assistant Engineer	Various
Michael Haverty	Weighbridge operator	Waste acceptance and leachate dispatch records
PJ Ryan	Operator	Unacceptable waste
Olga Broderick	Landfill Manager	Various

2.3 Documentation

The following documentation was requested for review:

Record	Condition No.	Comment
Training Records	2.5.1	Satisfactory
Minutes of meetings with local residents	2.7.1	Satisfactory
Annual Environmental Report	2.8.1	Satisfactory
Waste Acceptance Records	3.10	Satisfactory
Bund Integrity Tests	4.12.5	Satisfactory
Sludge Analysis Records	5.5.2	See audit findings
Surface water and groundwater monitoring records.	9.1	See audit findings
Biological River Monitoring	9.1.7	See audit findings
Incident Reports	10.7	Satisfactory

3. CLOSING MEETING

The closing meeting commenced at 3.30pm and the attendees were as at the opening meeting.

The Lead Auditor gave a summary of the audit result. The licensee was found to be in non-compliance with the Waste Licence in the matters and conditions listed below. Non-compliances and observations made during the audit (listed below), were discussed. The licensee was briefed on the Agency's reporting procedures and was advised that an audit report would be issued.

Finally, the licensee was thanked for the courteous and co-operative manner of the staff, and the assistance and co-operation extended during the audit.

AUDIT FINDINGS:

3.1 Non-Compliances observed during the Audit:

The audit process is a random sample on a particular day of a facility's compliance with some of its Waste licence conditions. Where a non-compliance against a particular condition has not been reported, this should not be construed to mean that there is full compliance with that condition of the licence.

The licensee was found to be in non-compliance with the requirements of the Waste licence in respect of the following (Schedule and Condition numbers refer to the Waste Licence):

1. Drainage from the waste inspection and quarantine area.

It was observed that drainage from these areas is directed through an oil interceptor prior to being emitted to surface water. Drainage should be directed to the leachate handling system.

This is a non-compliance with Condition No.4.7.3

2. Leachate levels

Levels in leachate wells were observed to be greater than 1 m over the liner at the following points LW02 = 2.0m, LW03 = 2.5m, LW07 = 2.1m, LW08 = 2m.

This is a non-compliance with Condition No.4.16.3

3. Capping and restoration

Capping infrastructure and site restoration as required under the terms of the licence has not yet been completed. It is noted that this work will commence soon, however it is significantly over due. This work is required to be completed within three months of cells having been filled to the required level. Cells 1 & 2 were closed and covered over in 1996. Cells 3, 4 & 5 were closed and temporarily capped in Sept. 2001. Cell 6 was closed in April 2002 & cell 7 in March 2003.

This is a non-compliance with Condition No.4.18.4 and 8.7

4. Surface water management infrastructure

Surface water management infrastructure required has not yet been installed. It is noted that this work will commence soon, however it is significantly over due (due to be completed 30/6/2002).

This is a non-compliance with Condition No.4.19

5. Groundwater discharges

It was noted that there are elevated levels of Ammonia in the groundwater discharged from under the liner for Cell 8. e.g. 2.87mg/l on 8/1/03 & 4.6mg/l on 26/1/03. These discharges are of environmental significance and efforts should be made to locate the cause of this contamination and to ultimately eliminate this input into local watercourses.

This is a non-compliance with Condition No.7.1

6. Height of the facility

It was noted that the existing maximum height of the facility is currently 121mOD. Full capping is required to be emplaced on this part of the landfill, which will result in a further increase in height unless existing waste is removed from this part of the landfill. The terms of the waste licence require that the final post-settlement height of the facility shall not exceed 114 mOD at any location.

This is a non-compliance with Condition No. 8.2

7. Permanent landfill gas monitoring

Arrangements for permanent landfill gas monitoring have not been put in place yet. It was noted that a permanent landfill gas monitor had been delivered to the landfill administration building, however it has not yet been installed. It is important that the installation of the permanent landfill gas monitor (particularly the location of the relevant sensors) is suitable for representative monitoring in the building.

This is a non-compliance with Condition No.9.10(d)

8. Perimeter landfill gas monitoring

The wells currently used for monitoring of migration of landfill gas are not appropriate, as they have no caps/valves in place. These must be replaced with appropriate monitoring infrastructure. It was stated that these were to be replaced soon.

It is also noted that in the EMP for the facility it is stated that all landfill gas monitoring results are in compliance with trigger levels stipulated in the licence. Given that the wells being monitored are not fit for purpose this statement is incorrect, and this should be noted in the next round of landfill gas monitoring carried out at the facility.

This is a non-compliance with Condition No. 9.12

3.2 Audit Observations:

These observations should be addressed by the licensee in order to improve the environmental performance of the facility and reported back to the Agency in accordance with the request under action required below.

1. **Sludge analysis records.** Sludge analysis records were reviewed, however many of the records held were for sludge not actually accepted at the facility. The records held at the facility should relate to the material accepted at the site. It was noted that there was no monitoring records for sludge accepted in 2003. This analysis is required bi-annually.
2. **Civic waste facility** It was noted that not all containers in the civic waste facility were labelled, however labels had been ordered for these.
3. **Spill kit training.** It was observed that the civic waste facility operator was not fully aware of how to use the spill kit. Training should be provided for all personnel who may need to use the spill kit. Additionally a short set of instructions should be provided on the spill kit, where it would be readily available in case of a spill.
4. **Unacceptable wastes.** While an operator at the working place was interviewed with regard to the types of wastes that are not acceptable at the facility, and his knowledge found to be acceptable, no written list of these wastes was available. This should be provided to site relevant personnel.
5. **Leachate lagoon.** The configuration of the pipe that delivers leachate to the lagoon should be improved. This pipe is held loosely in place and any movement could result in leachate spilling outside the leachate lagoon to surface waters. Additionally the area where the leachate tankers draw leachate from the lagoon should be concreted and designed so that any leachate spills arising during loading will be contained and delivered to the lagoon.
6. **Biological monitoring of local watercourses.** A slight improvement in ecological conditions was noted in the biological monitoring records. However, it is noted that station upstream of the landfill is still in poor ecological condition. The cause of this should continue to be pursued with Offaly County Council (as it is in County Offaly).

3.3 General comment:

It is noted that there has been much improvement at this facility in the past year with the installation of significant infrastructure and capital outlay (e.g civic waste facility, wheelwash, weighbridge etc.). The positive attitude and commitment of staff on the day was also noted.

However, there is yet much work to be done and many of the requirements of the licence with regard to infrastructure (e.g. capping and restoration, surface water management infrastructure etc.) are overdue and should be commenced and completed as soon as possible.

4. FOLLOW-UP ACTIONS

As outlined during the closing meeting the licensee should achieve compliance with those conditions found to be in non-compliance during the course of the audit. The licensee should inform the Agency of the actions taken to close out the non-compliances and observations raised in this audit. These actions will be verified during subsequent audits.

Report prepared by: Cormac Mac Gearailt Reviewed by: Michael Henry
 Cormac Mac Gearailt Michael Henry

Date: 23/6/03 Date: 23/6/03



SITE INSPECTION REPORT **COPY**

Site Name: Ballaghveny Landfill, **Date of Visit:** 6th May 2004
Address: Ballymackey, Co. Tipperary, **Time of Visit:** 11.00am to 1.00pm
Operator: North Tipperary County Council **Visit Criteria:** Routine
Inspector: Mr John Gibbons **Status and:** Licenced
Reg No: 78-1

1. SUMMARY

Landfill gas monitoring was carried out in 10 boreholes at Ballaghveny Landfill, as part of the enforcement of Waste Licence Register Number 78-1. During the monitoring tour I met with Ms Olga Broderick (Landfill Manager) and she informed me she was arranging for repairs to be carried out on some of the monitoring points, which had loose valve heads. The trigger level for methane was not exceeded at any of the perimeter boreholes but the trigger level for carbon dioxide was exceeded at MP7, which is a perimeter borehole. Three gas-sampling boreholes (MP4, MP6 and MP8) have no valves fitted. The licensee is reminded of the need to keep all monitoring valves closed except during monitoring. The site was operating normally during the monitoring period. There was a localised odour of landfill gas evident in the vicinity of borehole MP 9. A landfill gas flare was present at the facility but has not been connected to the landfill gas collection grid at the time of monitoring.

The results of the landfill gas monitoring are attached in Appendix 1

Report prepared by: John Gibbons Date: 10/6/04

Attachments: Appendix 1 (Gas monitoring results)

Ref: SI11 Jg

APPENDIX 1: RESULTS OF GAS MONITORING

epa Office of Environmental Enforcement		LANDFILL GAS MONITORING FORM		
LANDFILL GAS MONITORING				
Site Name (Reg. No.): Ballaghveny Landfill Reg. No 78-1		Site Address: Ballaghveny, Ballymackey, County Tipperary.		
Operator: North Tipperary County Council				
Site Status: Licensed		Date: 6 th May, 2004	Time: 11.00am to 1.00 pm	
Instrument used: GA2000		Date Next Full Calibration: August 2004 Last Field Calibration: 06/05/2004		
Monitoring Personnel: Mr John Gibbons		Weather: Dull/windy	Barometric Pressure: 987mb Mean Temperature: 11°C	
Results				
Borehole Number	CH ₄ (%v/v)	CO ₂ (% v/v)	O ₂ (% v/v)	Comments
MP2	0.1	0.5	21.6	
MP3	0.1	0.5	21.1	
MP4	0.1	0.4	20.6	No valve not sealed or isolated from the atmosphere.
MP5	0.1	1.2	20.5	
MP6	0.1	0.2	20.9	No valve not sealed or isolated from the atmosphere.
MP7	0.1	2.6	17.5	
MP8	0.1	0.3	20.9	No valve not sealed or isolated from the atmosphere.
MP15	0	0.4	21.0	
MP17	0	0	21.0	
MP18	0	0	21.7	
MP19	0.1	0.1	21.0	
MP20	0.1	0.1	20.9	

EDM?
78



LANDFILL INSPECTION REPORT

Landfill Site:	Ballaghveny Landfill	Date of visit:	8 July 2003
Licensee:	North Tipperary Co. Council	Scheduled:	Unannounced
Visit Criteria:	Site Inspection	Waste Licence Number:	78-1
Inspectors:	Brendan Foley	Date of issue of Licence:	04/05/01

1. SUMMARY

A site inspection to Ballaghveny Landfill was carried out by Brendan Foley in order to assess compliance with licence conditions. Whilst some improvements have been noted at the facility the licensee has still a significant amount of work to do regarding the implementation of the licence and remains in non-compliance with a number of conditions of the licence. These issues need to be addressed immediately.

Report prepared by:

Brendan Foley

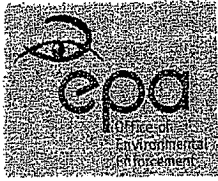
Signed:

Brendan Foley

Date:

21 July 2003

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SITE INSPECTION REPORT

Landfill Site: Ballaghveny Landfill **Date of Visit:** 7th October 2003
Licensee: North Tipperary Co. Council **Scheduled:** Unannounced
Visit Criteria: Site Inspection **Waste Licence Number:** 78-1
Inspectors: Brendan Foley **Date of Issue of Licence:** 04/05/01

1. SUMMARY

A site inspection to Ballaghveny Landfill was carried out by Brendan Foley in order to assess compliance with licence conditions.

Report prepared by: Brendan Foley

Signed:

Date:

3 November 2003

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SITE INSPECTION REPORT

Site Name and Address :	Ballaghveny Landfill, Ballymackey, Co. Tipperary	Date of Visit :	28 th January 2004
Operator :	Tipperary North Riding Co. Co.	Time of Visit:	12:40 to 15:00
Inspectors :	Mr. Caoimhín Nolan Mr. Brendan Foley	Visit Criteria :	General site inspection
		Status :	Licensed 4/5/01 (Reg. no. 78-1)

SUMMARY

A general site inspection was carried out in the presence of Ms. Olga Broderick (Landfill Manager). Some spillage of waste oil was observed in a dry ditch located on-site. A groundwater spring was observed beside one of the lined cells, and water from this spring was being pumped continuously to surface water. Photographs were taken during the visit.

NOTES ON THE SITE VISIT

SITE INSPECTION

- At the Civic Waste Facility, water was observed in one of the battery storage containers, and a computer monitor was observed in the domestic waste receptacle.
- The site roads around the site office/weighbridge area were observed to be clean. One section of tarmac/concrete was noted as being absent from the side of the wheelwash area, and ponded wastewater from the wheelwash was percolating through the ground here.
- The waste inspection and quarantine areas were generally clean and did not appear to be used on a regular basis.
- Some spillage of waste oil (including used oil filters and drums) was observed in a shallow ditch beside one of the haul roads.
- A strong flow of groundwater was observed flowing from the side of a gravel bank located beside the active cell. The point at which the spring emerged was notably higher than the base of the adjacent lined cell. The water from the spring flowed down the slope into a ponded area, and it was being pumped from here to a surfacewater discharge point.
- A leachate collection sump was observed in the lined cell only a few metres away from the ponded groundwater referred to above. The height of the cell side wall was <1m in this area, and any overflow of leachate would contaminate the pool of groundwater situated outside the cell, which is being pumped continuously to surface water. I asked Ms. Broderick to clarify the height of leachate in this sump, however she informed me that she was unable to measure leachate levels at this sump, due to a lack of physical access.
- An enclosed landfill gas flare was observed on-site, however no landfill gas is currently being collected on-site and the flare is currently unused.
- Some of the peat deposits on-site (from the area proposed to be developed for the new cell) were being used as cover material, in addition to Hessian.
- A mobile leachate pumping system was observed in operation on the unlined part of the site, pumping leachate from LM01 to one of the lined storage lagoons.

ACTIONS REQUIRED

- Water ingress into the battery storage containers should be prevented with the use of appropriate lids.

- WEEE and other household hazardous waste should be prevented from being disposed along with mixed household waste.
- The pervious ground located beside the wheelwash should be covered with tarmac/concrete to prevent wastewater discharging to groundwater. A sump to collect wastewater discharges from the wheelwash may also be installed here if necessary.
- Regular waste inspections should be carried out on incoming loads, and the waste inspection area should be used for this purpose. The waste acceptance procedures for the facility should be updated to include details of how such inspections will be carried out, including the methods/testing to be employed, the minimum number of inspections per 100 loads and the procedure for quarantining/rejecting loads or parts thereof.
- The spillage of waste oil observed on-site should be cleaned up and any contaminated soils found should be treated as hazardous waste and disposed of appropriately. Future vehicle maintenance activities such as oil or filter changes should take place in a contained area and measures put in place to minimise on-site spillages.
- Additional clay should be added to the lined cell wall referred to in this report to prevent pooled groundwater and leachate from mixing. The licensee should investigate long-term leachate and groundwater management options to reduce the need for continuous pumping to manage levels here. The potential impact/implications of groundwater upwelling in this area needs to be considered in the design and construction of any proposed lined cells.
- Landfill gas management, which makes use of the enclosed flare available on-site, should commence as soon as possible.

Report prepared by:

Caoimhin Nolan

Caoimhin Nolan

Date:

20/02/04

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APPENDIX 1 : ON SITE ASSESSMENT

The site inspection is a random sample on a particular day of a facility's operation and environmental performance, lack of reporting of an area or issue should not be construed to mean that this area is fully satisfactory.

SITE INSPECTION REPORT			
Site Name: Ballaghveny landfill		Date: 7 October 2003	
Time in: 10:30am approx.	Time out: 12:10 pm	Weather: Dry	
Status at Time of Inspection	Unsatisfactory <input type="checkbox"/>	Satisfactory <input checked="" type="checkbox"/>	
Condition 2.9 Facility Manager	<input checked="" type="checkbox"/>		
Condition 4.3 Site Security	<input checked="" type="checkbox"/>		
Condition 4.16.7	<input checked="" type="checkbox"/>		A SCADA system for the control of leachate management has not been installed. The licensee stated this would be put to tender shortly.
Condition 4.17.1 Landfill Gas Management	<input checked="" type="checkbox"/>		No landfill gas infrastructure other than a non-operational flare has been installed at the facility. The licensee needs to progress the landfill gas management plan for the facility immediately.
Condition 4.19.1 Surface water management	<input checked="" type="checkbox"/>		No surface water management system installed as per this condition.
Condition 5.5.1/6.3.4 litter control	<input checked="" type="checkbox"/>		
Condition 5.9(a) Working Face	<input checked="" type="checkbox"/>		
Condition 5.9 (c) (Layering/Compaction of Waste)	<input checked="" type="checkbox"/>		
Conditions 4.18/5.10 Covering of Waste	<input checked="" type="checkbox"/>		Poor quality gravelly subsoil cover interspersed with large stones and some rocks was used as daily/intermediate cover and a substantial amount of this material had been eroded and/or washed away by rainfall in the current working Cell 8. Large rocks and stones already deposited in the clay cover should be removed as they could cause damage to the engineered cell in particular the liner.
Condition 6.2 Road network	<input checked="" type="checkbox"/>		
Condition 6.7 Nuisance	<input checked="" type="checkbox"/>		No odour at the boundary at the time of visit.
Condition 8.7 Restoration of existing landfill	<input checked="" type="checkbox"/>		The restoration of the existing landfill facility has not commenced.
Condition 9.10 Telemetry system	<input checked="" type="checkbox"/>		The telemetry system has not been installed.
Condition 9.17 Biological assessment	<input checked="" type="checkbox"/>		The annual biological assessment report of the Ballaghveny stream has not been submitted.

Notes:

1. There was some dead birds stuck in the netting covering the leachate lagoon.
2. Civic amenity area was clean and tidy.
3. There was a strong odour of landfill gas near gas vent MP21
4. The licensee should consider mobile litter netting around the active cell.
5. Three new groundwater boreholes have been installed for the new cells to be engineered.
6. Work is progressing on awarding the tender for the new phase of the landfill.

Samples Taken: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Photographs Taken: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Video Taken: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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APPENDIX 1 : ON SITE ASSESSMENT

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	Satisfactory	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Condition 5.5.1/6.3.4 litter control		<input checked="" type="checkbox"/>	
Condition 5.9(a) Working Face		<input checked="" type="checkbox"/>	
Condition 5.9 (c) (Layering/Compaction of Waste		<input checked="" type="checkbox"/>	
Conditions 4.18/5.10 Covering of Waste		<input checked="" type="checkbox"/>	Poor quality gravelly subsoil cover interspersed with large stones and some rocks was been used as daily/intermediate cover and a substantial amount of this material had being eroded and/or washed away by rainfall in the current working Cell 8. Large rocks and stones already deposited in the clay cover should be removed as they could cause damage to the engineered cell in particular the liner.
Condition 6.2 Road network		<input checked="" type="checkbox"/>	
Condition 6.7 Nuisance		<input checked="" type="checkbox"/>	No odour at the boundary at the time of visit.
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Licence Audit Report



Office of
Environmental
Enforcement

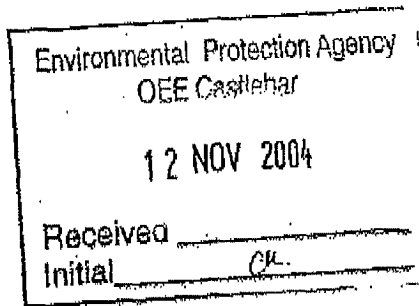
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For the Attention of:

Mr. Frank O'Halloran
Senior Engineer - Environment
North Tipperary County Council
The Machinery Yard
Nenagh
Co. Tipperary



Facility:

Ballaghveny Landfill
Ballymackey
Co. Tipperary

Audit No:	3	Register No:	WL 78-1
Lead Auditor:	Damien Masterson	Audit Reference No:	WL78-1\AR03DM {Sept04}
Inspector:	Caoimhin Nolan	Scheduled:	Yes (letter issued 21/09/04).
Audit Criteria:	Licence Reg. No. 78-1 issued 04/05/01.	Date of Audit:	30 th September 2004
		Date of Issue of Audit Report:	11/11/2004

This Licence Audit Report details the Agency's findings following an audit of Ballaghveny Landfill.

NOTIFICATION OF NON-COMPLIANCE

North Tipperary County Council have been found to be in non-compliance with the conditions of the Licence as set out in this Audit Report. You are required to undertake the corrective actions specified to close out the Non-Compliances and Observations raised in this Report or further enforcement action may be taken by the Agency.

In view of the above you are required to submit a schedule to the Agency within 14 working days of receipt of this Report detailing how the non-compliances and observations specified therein are to be rectified. Please quote the above Audit Reference Number in any future correspondence in relation to this Report. If you have any further queries please contact Caoimhin Nolan at 094-9048444.

1. OPENING MEETING

The opening meeting commenced at 10:50 a.m. and the following were in attendance: North Tipperary County Council: Mr. Frank O'Halloran – Senior Engineer, Environment Section; Ms. Olga Broderick – Facility Manager and Mr. Ray Spain – Deputy Landfill Manager/Environmental



14000

Scientist. Representing the Environmental Protection Agency: Mr. Damien Masterson – Lead Auditor and Mr. Caoimhín Nolan.

Damien Masterson gave a brief introduction to the objectives and scope of the audit and the procedure to be followed for the remainder of the audit.

2. ON-SITE ASSESMENT

2.1 Review of Progress of EMP Implementation

A presentation on the progress of implementation of the Environmental Management Programme was given by Ms. Olga Broderick.

The licensee outlined that progress had been made in relation to the following:

- a) Establishment and Maintenance of an EMS;
- b) Reduction of emissions and environmental impact;
- c) Establishment of Site Infrastructure including upgrading of the access roads;
- d) Development of Waste Acceptance Procedures;
- e) Measures to prevent nuisance;
- f) Public Information Programme and Community Environmental Projects; and,
- g) Development of procedures for Contingency Arrangements.

The licensee highlighted the following areas as being those in which satisfactory progress had not been achieved:

- a) Installation of Landfill Gas Management Infrastructure;
- b) Installation of Leachate Management Infrastructure;
- c) Surface Water Management Infrastructure; and,
- d) Capping of completed areas of the landfill.

While significant work has been carried out, overall progress on EMP implementation was considered unsatisfactory by the Audit team due to long time over-runs on the installation of the key infrastructure mentioned above.

Damien Masterson then reviewed the licensee's progress in addressing the findings of the last audit of the facility carried out 11/06/03 (Ref. AR02CmcG) and the most recent site inspections of the facility carried out 28/01/04 (Ref. SI10CN{Jan 04}) and 06/05/04 (Ref. SI11JG(2004)).

2.2 Site Inspection and Assessment

A tour of the site was conducted, special attention was paid to: the new cells, the working face, the Civic Waste Facility, Site Drainage and the perimeter of the licensed facility.

2.3 Interview

The following representatives were interviewed during the audit:

Name	Position	Issue
Olga Broderick	Landfill Manager	Licence Compliance
Ray Spain	Deputy Landfill Manager/Environmental Scientist	Licence Compliance
Mr. Tieman O'Rowke	Coffey Construction	Liner installation

2.4 Documentation

The following documentation was requested for review:

Record	Condition No.	Comment
Training Records	2.5.1	Satisfactory
Records of Incidents	3.1	Satisfactory
Leachate Disposal Records	3.12	Satisfactory
Complaints Register	3.13	Satisfactory
Sludge Records	5.12.5	See Audit Findings
Off site disposal/recovery facilities	5.18	Satisfactory
Leachate Level Records	9.1	See Audit Findings
Landfill Gas Monitoring Records	9.1	See Audit Findings
Calibration Records	9.13	See Audit Findings
Biological Monitoring	9.17	Satisfactory

3. GENERAL COMMENT

The quality of management and record keeping at the facility is good. High levels of housekeeping and tidiness are maintained around the facility. Good infrastructure has been provided in respect of the entrance, the administration block and the civic waste facility. However, the Agency is disappointed and concerned that major infrastructural works such the installation of an operational Landfill Gas Management system, adequate leachate management systems and capping of filled areas of the site have been badly delayed and are now well beyond specified licence time-frames.

4. CLOSING MEETING

The closing meeting commenced at 15:35 and the attendees were as at the opening meeting.

Damien Masterson gave a summary of the audit result. The licensee was found to be in non-compliance with the Licence in the areas listed below. Non compliances and observations made during the audit (listed below), were discussed.

The licensee was briefed on the Agency's reporting procedures and was advised that an audit report would be issued.

Finally, the licensee was thanked for the courteous and co-operative manner of the staff, and the assistance and co-operation extended during the audit.

5. AUDIT FINDINGS

5.1 Audit Non-Compliances

The audit process is a random sample on a particular day of a facility's compliance with some of its licence conditions. Where a non-compliance against a particular condition has not been reported, this should not be construed to mean that there is full compliance with that condition of the licence.

The licensee was found to be in non-compliance with the requirements of the licence in respect of the following on the day of the audit (Schedule and Condition numbers refer to the Licence):

1. Landfill Gas Management Infrastructure

A gas flare is in place but no system for the collection of landfill gas has been installed. This is a non-compliance with **Condition 4.17.1**.

Condition 4.17.1 states that:

A Gas Flare and associated infrastructure shall be installed on the facility within six months of the date of grant of the licence.

(i) *The flare shall be of an enclosed type design.*

(ii) *Air dispersion modelling shall be used to determine the optimum location of the landfill gas flare in relation to the nearby dwellings. The results of the modelling shall be submitted to the Agency prior to the flare being installed.*

Corrective Action Required

The licensee should commence the installation of the necessary landfill gas collection infrastructure immediately.

2. Leachate Management

The Audit team noted that leachate levels at two leachate monitoring points exceeded the limit of 1 metre above the level of the liner, LM7 in Cell 4 – 3.0 m and LM8 in Cell 5 – 1.5 m on 05/06/04. The Audit Team also noted that a SCADA system and a telemetry system for the monitoring, control and management of leachate at the facility have not been installed. These are non-compliances with **Conditions 4.16.3, 4.16.7 and 9.10** respectively.

Condition 4.16.3 states:

Following the provision of the leachate management system in Condition 4.16.1, leachate levels in cells 3, 4 and 5 of the existing landfill and phase 1, 2, 3 and 4 of the proposed extension shall not exceed a level of 1.0 m over the top of the liner.

Condition 4.16.7 states:

Within six months of the date of grant of the licence a SCADA System for the control of leachate management including leachate pumping, leachate levels (within cells and the leachate lagoons) and leachate recirculation shall be provided and maintained at the facility. The SCADA system shall be extended to incorporate future modifications and/or extensions to the leachate management system.

Condition 9.10 states:

Prior to the commencement of waste activities a telemetry system shall be installed and maintained at the facility. This system shall include for;

- a) *recording of leachate levels in the lined cells and lagoon.*
- b) *recording of levels in the surface water lagoon and flows to the perimeter streams.*

- c) *quality of the surface water at the inlet to the surface water lagoons and being discharged to the perimeter streams*
- d) *permanent gas monitoring system to be installed in the site office and any other enclosed structures at the facility.*

Corrective Action Required

Leachate levels should be kept below the 1 metre limit and work on the long-term leachate management infrastructure should be commenced. Consideration should be given to the necessity for further abstraction wells in Cells 1 & 2 of the landfill.

3. **Restoration and Aftercare including capping of the facility**

Old waste disposal areas (Cells 1 to 5) have not been capped as yet and this is long overdue. This is a non-compliance with **Condition 4.18.4**.

Condition 4.18.4 states:

Filled cells shall be permanently capped to the specifications agreed with the Agency in accordance with Condition 4.18.2 within three months of the cells having been filled to the required level.

Corrective Action Required

This work should be progressed as quickly as possible.

4. **Acceptance of Untreated Sludge at the Facility**

Untreated sludge is being accepted at the facility. This is a non-compliance with **Condition 5.12.3**. The Audit Team note that the licensee has applied for a review of the Waste Licence.

Condition 5.12.3 states:

From 1 January, 2004, only treated sludges shall be accepted at the facility.

Corrective Action Required:

Comply with **Condition 5.12.3** and submit a proposal for the cessation of the acceptance of untreated sludges for disposal at the facility.

5. **Height of the Facility**

The Audit Team notes that the maximum height of the facility of 114m OD at any location has been exceeded at a maximum height of 121m OD. This is a non-compliance with **Condition 8.2**. It is noted that an application for a review of the Waste Licence has been made to the Agency.

Condition 8.2 states:

Unless otherwise agreed with the Agency, the final post-settlement height of the facility shall not exceed 114 m OD at any location.

Corrective Action Required:

Provide an update on how the licensee intends to comply with **Condition 8.2**.

5.2 Audit Observations

While these observations do not constitute non-compliances with any condition of the licence, they should be addressed or where relevant noted by the licensee in order to ensure compliance, improve environmental performance of the facility and provide clarification on certain issues. Where requested the actions taken and clarifications requested should be reported back to the Agency.

1. **Waste Inspection and Quarantine Area (Condition 4.7)**

The Aco-drain in this area needs to be cleaned out as a lot of silt and debris have accumulated in it.

2. **Groundwater Drainage Layer under Lining System (Conditions 4.14 and 7.3)**

The groundwater drainage layer under the liner of the newly lined cell does not drain to a sump or discharge to any receiving water body. Some monitoring of Ground Water level or Groundwater Pressure needs to be carried out here to assess the need for groundwater abstraction below the landfill liner. Based on the results of this monitoring, some groundwater abstraction facilities may need to be provided.

3. **Civic Waste Facility (Condition 5.4)**

A container for batteries in the Civic Waste Facility contained some rain water. The battery containers should be located and maintained in a manner such that this is prevented from happening.

4. **Sludge Acceptance (Conditions 5.12.1 and 5.12.5)**

The immediate covering of sludge with other waste on placement at the working face can be improved. The classification of the Procter & Gamble sludge accepted at the facility needs to be confirmed as correct for recording purposes.

5. **Calibration (Condition 9.13)**

The Audit Team noted that the results of some of the licensee's CO₂ and CH₄ monitoring of perimeter boreholes do not concur with the Agency's monitoring. The Audit Team considers that the GA 94 landfill gas monitor needs to be calibrated at the lower end of the scale in order to detect lower levels of CO₂ and CH₄ in perimeter boreholes. The Audit Team also note that the weighbridge was last calibrated in April '02 and is due for calibration again.

6: **FOLLOW-UP ACTIONS**

The licensee shall take the actions required to close out the non-compliances and observations raised in this Licence Audit Report. These actions will be verified during subsequent site inspections/audits.

Please quote the Audit Reference Number in any future correspondence in relation to this Report.

Report prepared by Damien Masterson

Damien Masterson,
Lead Auditor

Reviewed by:

Brendan Wall

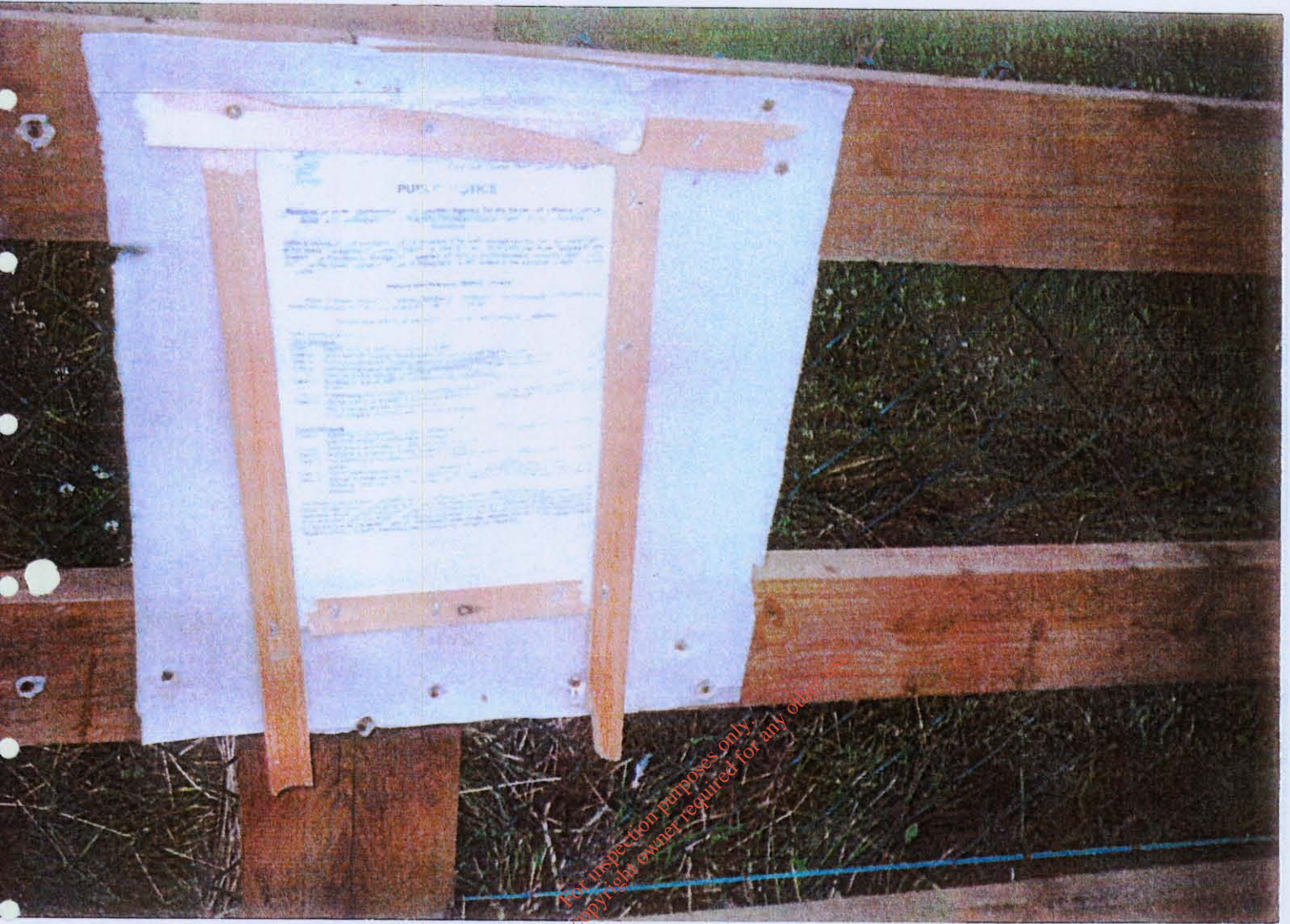
Brendan Wall,
Senior Inspector

Date: 11th November 2004

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SITE ENTRANCE
BALLASHVENY LANDFILL



COPY OF NOTICE 78-2 APPLICATION



SEWAGE SLUDGE DEPOSITED CELL 8,
ON TOP OF LANDFILL, LEFT FOR HOURS
UNCOVERED, BREACH OF COMPLIANCE 5.12.1



For inspection purposes only.
Consent of copyright owner required for any other use.

CLOSE UP OF SLUDGE LEFT UNCOVERED
BREACH OF CONDITION S.12.1



CLOSE UP OF SLUDGE LEFT UNCOVERED
ALL WEEKEND, BREACH OF CONDITION S.12.1
FLIES HORRENDOUS



LEACHATE SAMPLE COLLECTED
FROM LEACHATE LAGOON, TWO SETS
OF SAMPLES DIFFERENT LABORATORIES

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SURFACE WATER TIP # CELL 8,
 Head
 TOTALLY UNCOVERED OR COMPACTED,
 FLIES, VERMIN, BIRDS, FEEDING GROUND
 BREACH OF CONDITIONS



SURFACE WATER COLLECTION, NO COMPACTION,
COVER, TOTALLY UNSAFE FOR MACHINERY
TO WORK ON, BREACH OF CONDITIONS CELL 8



SURFACE WATER BUBBLING
WITH GAS, CELL & FURTHER
INVESTIGATION IS NEEDED TO ESTABLISH
THE CAUSE OF THIS PROBLEM



RED PLASTIC BAG CONTAINING MEAT
RESIDUE, BREACH OF CONDITION
5.1, LEFT UNCOVERED FOR
HOURS



RED PLASTIC BAG CONTAINING MEAT
RESIDUE, BREACH OF CONDITION 5.1
LEFT UNCOVERED FOR HOURS



LARGE AMOUNTS OF BIODEGRADABLE
WASTE CONTRARY TO LANDFILL EU
LEGISLATION.



For inspection purposes only.
Consent of copyright owner required for any other use.

GAS BURN OFF BOILER NOT CONNECTED



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DISCARDED HOUSEHOLD APPLIANCES

CLEAR PLASTIC FULL OF BLOOD
RESIDUE, BREACH
OF CONDITION 5.1.





EAR TAG



TIP FACE POOR COMPACTION LARGE AREAS UNCOVERED



LARGE AREAS OF TIP HEAD
UNCOVERED LEFT IN THIS CONDITION
OVER THE WEEKEND, FLIES, BIRDS,
VERMIN, BREEDING AND FEEDING
GROWN, SEWAGE SLUDGE LEFT
UNCOVERED.



LARGE AMOUNTS OF BIODEGRADABLE MATERIAL LEFT EXPOSED FOR SEVERAL HOURS.



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LARGE AMOUNTS OF BIODEGRADABLE
WASTE LEFT UNCOVERED.