EPA Application Form

4. Activity and Capacity

4.3 – Waste Activity

4.3.3 Waste Acceptance Procedures - Attachment

Organisation Name: *	Knockharley Landfill Limited
Application I.D.: *	LA004307

1.0 Scope

This procedure describes the method of accepting waste at the landfill. This document has been prepared in compliance with Condition 5.3 of the IED Licence Reg. No. W0146-02 and in accordance with Council Decision 2003/33/EC on establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Council Directive 1999/31/EC on the landfill of waste.

2.0 Responsibility

The Landfill Manager (LM) will implement this procedure. The Weighbridge Operator and Site Supervisor will ensure procedure is correctly followed.

3.0 References

EMS-EF-30 Daily Site Condition Report

EMS-OP-02 Operation, Start-up, Shut-down and Compaction of Waste

EMS-OP-19 Odour Management Plan

EMS-EF-22 Waste Acceptance control form

EMS-EF-23 Certificate of Consignment

EMS-EF-23b Certificate of Consignment (soils/stones)

Planning Decision (Planning Register Reference Number NA/60336)

IED Licence W0146-02

Council Decision 2003/33/EC on establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Council Directive 1999/31/EC on the landfill of waste

EPA Landfill Operational Practices Manual (4/500/97)

EPA Municipal Solid Waste Pre-Treatment and Residuals Management (2009)

4.0 Procedure

4.1. The types and annual quantities of waste for disposal, as specified in Schedule A of the IED Licence W0146-02 are shown in Table 1 below. However, in accordance with Condition 3 of the Planning Decision (Planning Register Reference Number NA/60336), waste to be accepted at the facility shall be restricted to 132,000 tonnes per annum until December 2010 and 88,000 tonnes thereafter.

Waste Type	Maximum Quantities (in tonnes per annum)
Household	100,000

Commercial	45,000
Industrial	30,000
Sub Total (Waste for Disposal)	**175,000**
Construction & Demolition for recovery at the facility	25,000
Total	**200,000**

4.2. Limits on the acceptance of biodegradable municipal waste, as stipulated in Condition 1.13 of IED Licence W0146-02, state:

4.2.1. From 1 July 2010 to 30 June 2013 inclusive, a maximum of 47% by weight of municipal solid waste (MSW) accepted for disposal to the body of the landfill shall comprise biodegradable municipal waste (BMW), measured on a calendar year basis or, in 2010 and 2013, part thereof

4.2.2. From 1 July 2013 to 30 June 2016 inclusive, a maximum of 30% by weight of MSW accepted for disposal into the body of the landfill shall comprise BMW, measured on a calendar year basis or, in 2013 and 2016, part thereof, and

4.2.3. From 1 July 2016, a maximum of 15% by weight of MSW accepted for disposal to the body of the landfill shall comprise BMW, measured on a calendar year basis or, in 2016, part thereof.

4.3. Non-Acceptable Waste Types

In accordance with the licence the following waste types will not be accepted:

- No hazardous wastes or liquid wastes shall be disposed of at the facility Whole used tyres (other than bicycle tyres and tyres with an outside diameter greater than 1400 mm) shall not be disposed of at the facility. Shredded tyres shall not be disposed of at the facility.
- No waste which in the conditions of the landfill, is explosive, corrosive, oxidising. Highly flammable or flammable as defined in EU Council Directive 91/689/EEC shall be accepted at the landfill.
- Gypsum wastes shall not be placed in any landfill cell accepting biodegradable waste.
- The dilution or mixture of waste solely in solely in order to fill relevant waste acceptance criteria established under Condition 5.3 is prohibited.

4.4. Acceptance of Odorous Wastes

Please refer to Section 2.2 of EMS-OP-19 Odour Management Plan regarding the acceptance and management of odorous wastes.

4.5. *Waste Collection Permits*

4.5.1. SEHL will only accept waste from holders of waste collection permits under the Waste Management (Collection Permit) Regulations 2007 as stipulated in Condition 5.2 of IED Licence W0146-02. All Waste Collectors must provide SEHL with copies of up to date collection permits which will be maintained on-site.

4.6. Waste Treatment

4.6.1. As specified in Condition 1.6 of the IED Licence W0146-02, *SEHL* will ensure that all waste accepted at the facility has been subject to treatment prior to arrival at the facility. As specified in Condition 5.5 of the IED Licence W0146-02, SEHL will ensure that inert waste accepted at the facility is subject to pre-treatment where technically feasible and appropriate.

4.6.2. The facility is only licensed for the deposit and not the treatment of wastes, therefore *SEHL* will require all holders of waste to carry out the appropriate treatment at the point of origin or at accordingly licensed/permitted facilities. Details of treatment will be supplied to SEHL and verified as required.

4.7. *Waste Characterisation, Testing and Verification*

Waste Acceptance at Knockharley Landfill will be carried out in compliance with the requirements of Council Decision 2003/33/EC, and will comprise the three following levels of waste characterisation and testing prior to acceptance.

4.7.1. <u>Basic Characterisation</u>

4.7.1.1. Basic Characterisation is required for each type of waste prior to approval for disposal at Knockharley landfill, i.e. to decide whether or not the waste fulfils the criteria for acceptance.

4.7.1.2. The producer of the waste, or in default the person responsible for its management, is responsible for ensuring that the characterisation information is correct. Independent laboratory testing may be required to determine the leaching behaviour of the waste.

4.7.1.3. In addition to supplying the basic information on the waste, the basic characterisation shall also detect key variables (critical parameters) and specify the scope and frequency for compliance testing. SEHL will require the submission of the following information for all waste types prior to approval for disposal:

- Details of the source and origin of the waste.
- Information on the process producing the waste (description and characteristics of raw materials and products).
- Description of the waste treatment applied in compliance with Article 6(a) of Council Directive 99/31/EC, or a statement of reasons why such treatment is not considered necessary.
- Code according to the European Waste Catalogue
- Data on the composition of the waste (and the leaching test results, where the waste is not classified in Chapter 20 of the European Waste Catalogue and/or where there has been no pre-treatment carried out on the waste).
- Appearance of the waste (smell, colour and physical form).
- Information to prove that the waste does not fall under the exclusions of Article 5(3) of the Council Directive 1999/31/EC.

4.7.1.4. The procedure for the basic characterisation of waste is shown as a flow diagram in Appendix I.

4.7.1.5. In compliance with Section 2.2.1 of Council Decision 2003/33/EC, municipal waste (as defined in Article 2(b) of Council Directive 99/31/EC that is classified as non-hazardous in Chapter 20 of the European Waste Catalogue), separately collected non-hazardous fractions of household wastes and the same non hazardous materials from other origins can be admitted for disposal without testing.

4.7.1.6. Any other wastes will be subject to testing in accordance with Section 1.1.3 of Council Decision 2003/33/EC, which includes testing of the leaching behaviour and the assessment of the waste against the limit values for non-hazardous waste. Analysis Methods and Limit Values are shown in Appendix II.

4.7.1.7. During basic characterisation, it is established whether wastes are regularly generated in the same process or whether wastes are not regularly generated. This differentiation has an impact on both

the frequency and extent of tests for basic characterisation and compliance:

- If wastes are regularly generated from the same process in a single installation, or from the same process in different installations but the measurements sufficiently show the range and variability of the characteristic properties, then those wastes can be considered characterised and shall subsequently be subject to compliance testing only, unless significant changes in the generation process occur.
- If wastes are not regularly generated in the same process and are not part of a well characterised waste stream, then each batch of such waste will need to be subject to basic characterisation, which also means that no compliance testing is needed.

4.7.1.8. Basic Characterisation will be performed and/or paid for by the waste producer or by the person responsible for its management.

4.7.2. Determination of Biodegradable Content of MSW

4.7.2.1. In accordance with Conditions 1.13 and 1.14 of IED Licence W0146-02, the biodegradable content of MSW accepted for disposal to the body of the landfill must be determined.

4.7.2.2. The producer of the waste, or in default the person responsible for its management, is responsible for submitting information on the treatment processes and BMW content of all municipal waste streams disposed of at Knockharley Landfill.

4.7.3. Compliance Testing

4.7.3.1. In order to check regularly arising waste streams, any waste that has been deemed acceptable for disposal at Knockharley Landfill on the basis of basic characterisation shall be subject to compliance testing, to determine if it complies with the results of basic characterisation and the relevant acceptance criteria. The testing parameters and frequency will be determined following basic characterisation.

4.7.3.2. The compliance test shall, as a minimum, consist of a batch leaching test, and shall be carried out in the scope and frequency and for the key variables as determined during basic characterisation. Analysis Methods and Limit Values are shown in Appendix II. In accordance with Condition 8.14 of the licence, SEHL shall ensure that any waste acceptance testing and analysis required by this licence shall be carried out by competent

laboratories in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards or alternative methods shall apply with the agreement of the Agency.

4.7.4. On-Site Verification

4.7.4.1. Each load of waste delivered to the landfill site will be subject to on-site verification to check that the waste presented for disposal is the same as that which has been subjected to basic characterisation and compliance testing and which is described in the accompanying documents. The first step of the on-site verification shall occur at the weighbridge office, where the weighbridge operator will check the documentation accompanying the load, and a first visual check of the waste will be carried out, while the waste is still contained. Should the waste delivered to the facility differ from that described in the accompanying documents, the procedures for rejection apply.

4.7.4.2. If the waste load has passed both initial checks it can be conveyed to the disposal area. After unloading the waste is subject to further visual inspection by site staff at the disposal area. If the load also passes this check it can be spread on the working face for compaction. Should any unacceptable wastes be discovered, the load or any relevant part thereof will be removed to the Waste Inspection Area for further investigation in accordance with Condition 5.4 of IED Licence W0146-02.

4.8. *Waste Acceptance and Handling*

All holders of waste collection permits under the Waste Management (Collection Permit) Regulations 2007, who wish to deliver waste to the facility for disposal are informed of the relevant sections of the Waste Acceptance Procedures prior to the first delivery to the facility and must fill out EMS-EF-22 “Waste acceptance control” form beforehand. Waste Acceptance consists of five steps described below and also detailed in Appendix III.

4.8.1. Arrival of Waste on Site

When a waste load arrives at the facility the weighbridge operator and any other site staff present check whether all site rules for hauliers are being and have been adhered to. Once a vehicle is approved for access to the site it will enter the entry weighbridge, where the weighbridge operator will perform the documentation check and the first visual inspection.

4.8.2. Documentation Check

The documentation accompanying the waste load is checked by the weighbridge operator (either form EMS-EF-23 for waste or EMS-EF-23b for soil/stones will be filled out). All relevant details relating to the producer and

the current and previous carriers must be completed as well as all relevant sections relating to the description and treatment of the waste. The weighbridge operator will establish whether the waste has been subject to basic characterisation and has been deemed acceptable. The waste load shall only be accepted if the weighbridge operator is satisfied that all necessary information has been supplied and that the waste has been characterised and deemed acceptable. Should any of the above not be the case, the waste load has to be rejected and the facility manager or nominated deputy informed immediately.

4.8.3. On-Site Verification

The weighbridge operator performs the initial visual inspection of the waste load to verify that the waste delivered is the same as that described in the documentation and has been subject to basic characterisation. The weighbridge operator is aided by the CCTV equipment installed at the weighbridge office if free vision is not possible. If the initial on-site verification at the weighbridge fails, the weighbridge operator will reject the load and immediately inform the facility manager or nominated deputy.

4.8.4. Compliance Testing

If the waste delivered to the site is due for compliance testing, as specified in the basic characterisation for the waste, the weighbridge operator will, prior to accepting the waste, inform the facility manager and divert the waste load to the waste inspection area. All key parameters that can be verified on site will be checked for, while all other information like laboratory analysis will have to be supplied separately, based on samples taken from the waste load prior to delivery.

4.8.5. Unloading of Waste

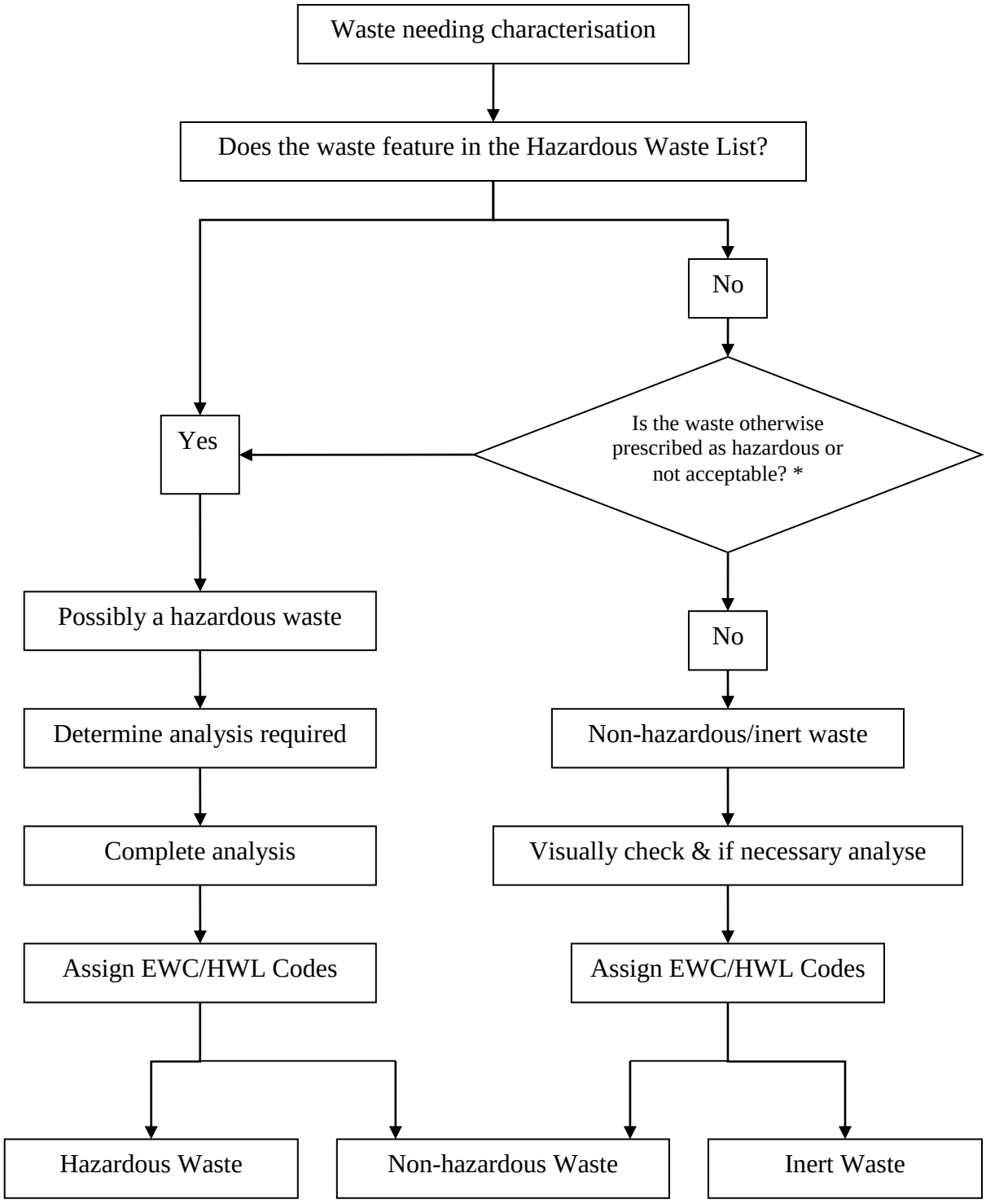
Any waste loads that have passed previous checks, are directed to the tipping area, where waste is unloaded under supervision of site staff. Should any non-conformity be identified during unloading, the site supervisor will immediately stop the unloading and notify the facility manager or nominated deputy. If the waste load is fully compliant, the driver will be directed through the wheelwash back to the weighbridge, on completion of unloading.

4.8.6. Procedure for Rejected Waste Loads

During any of the above described steps, a waste load may be rejected, which constitutes an incident in accordance with Licence Condition 1.12 e). Whenever a waste load is rejected, it will be held until a decision has been made on how to proceed. Refer to EMS-OP-23 Reporting of Environmental Incidents.

- If the non-conformity has been identified after unloading the waste, the waste will be loaded back on a site truck and tipped into the Waste Inspection Area.
- If a load has been rejected while still contained, the truck or trailer will be moved into the Waste Inspection Area in agreement with the carrier. In the case that the non-conformity is only related to wrong or incomplete documentation, the necessary amendments will be made in cooperation with the carrier. Should the waste itself be non-conforming, it will be decided whether an alternative outlet for recovery or disposal has to be found or whether further inspection and/or testing is required to establish the exact characteristics of the waste. The carrier will be required to notify SEHL of the final destination of the waste load.

Appendix I: *Figure 1: Procedure for the Basic Characterisation of Waste*



* Refer to Section 4(2)(a)(ii), Waste Management Act, 1996, and Article 5, Council Directive 1999/31/EC on the Landfill of Waste

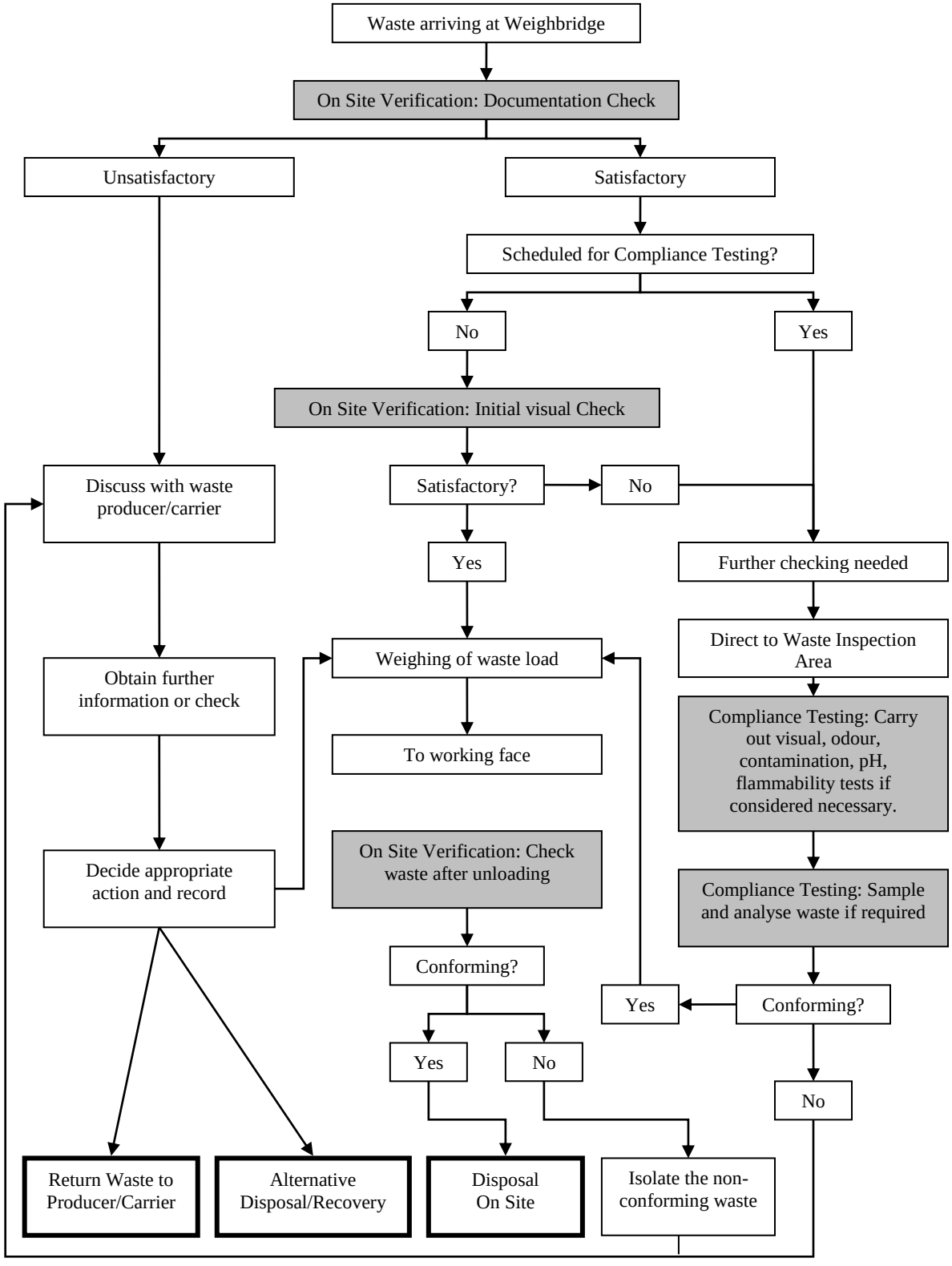
Appendix II

Independent laboratory testing required for basic characterisation and compliance testing will be carried out by an independent and accredited laboratory in accordance with the requirements of section 3 of Council Decision 2003/33/EC, in particular leaching test method EN 12457/1-4 with an L/S ratio of 10. The parameters and limit values for leachability testing as required in section 2.2.2 of Council Decision 2003/33/EC are shown in Table 2 below.

Table 2: Limit values for acceptable waste at non-hazardous landfills as prescribed by the EU Commission Decision of "establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Council Directive 1999/31/EC on the landfill of waste"

Component	**(mg/kg dry substance)**
	L/S = 10 l/kg
Arsenic As	2.0
Barium Ba	100
Cadmium Cd	1
Chromium Cr (total)	10
Copper Cu	50
Mercury Hg	0.2
Molybdenum Mo	10
Nickel Ni	10
Lead Pb	10
Antimony Sb	0.7
Selenium Se	0.5
Zinc Zn	50
Chloride	15,000
Fluoride	150
Sulphate	20,000
Dissolved Organic Carbon	800
Total Dissolved Solids	60,000

Appendix III – Waste Acceptance Flow Chart



Revision No.	Revision Date	Description	Sections Affected	Revised By	Approved By
001	21/01/16	EMS-OP-09	All	GH	TF
002	15/03/16	EMS-OP-09	Section 4.3 added the list of Non-Acceptable waste types as conditioned by the licence	FTCO	GH
003	23/07/18	Update sections with reference to waste forms	Sections 30., 4.8 & 4.8.2	MW	TF
004	21/06/19	Name Change	Header & throughout	POR	SS

1.0 Scope

This procedure describes the method of accepting waste at the landfill with an intended use for engineering, restoration or remediation purposes. This document has been prepared in compliance with Condition 5.3 of the IED Licence (W0146-02).

2.0 Responsibility

The Facility Manager shall implement this procedure.

The Site Supervisor shall ensure that wastes for recovery, in particular those of varying composition, are assigned the appropriate engineering, restoration or remediation purpose as detailed in Section 4.2.2 below.

3.0 References

European Waste Catalogue and Hazardous Waste List

IED Licence W0146-02

EMS-OP-04 Suppression of Dust

EMS-OP-09 Waste Acceptance and Handling Procedures

4.0 Procedure

4.1. Waste Acceptance

4.1.1. The acceptance of waste for disposal or recovery shall be decided upon in accordance with the Waste Acceptance and Handling Procedures EMS-OP-09.

4.1.2. The classification of waste shall be carried out in accordance with the European Waste Catalogue and Hazardous Waste List

4.1.3. All relevant conditions of the Licence W0146-02 relating to waste acceptance shall be considered when deciding whether a waste is suitable for acceptance.

4.2. Determination of engineering, restoration or remediation purposes

4.2.1. After completion of all required pre-acceptance procedures and documentation, all wastes for recovery shall be assigned an appropriate engineering, restoration or remediation purpose, utilising the list in Section 4.2.2 below.

4.2.2. The following list shall be utilised as a guidance in determining engineering, restoration or remediation purposes for wastes for recovery:

- Final capping
- Intermediate capping
- Daily cover
- Odour abatement
- Construction of haul roads
- Protection of landfill liner

- Acoustic screening bunds
- Visual screening bunds
- Construction of external bunds
- Construction of internal bunds

4.2.3. Materials used for engineering, restoration or remediation purposes should not:

- Give rise to odour
- Encourage or give rise to nuisances such as flies, dust, scavenging birds or litter
- Cause pollution
- Breach licence requirements in terms of what waste types are acceptable at the landfill
- Degrade over time causing secondary problems
- Impede proper functioning of site infrastructure
- Be a feedstock for future landfill gas production or conflict with biodegradable municipal waste diversion targets
- Cause ponding or perched leachate build-up within the landfill
- Interfere with the functioning of the landfill gas collection and extraction system

1.1. Assessment of wastes for engineering, restoration or remediation purposes

- All wastes intended for engineering, restoration or remediation purposes shall be assessed regularly regarding their suitability for these purposes. In particular the composition and any beneficial properties, such as odour abatement properties, shall be evaluated.
- The frequency of the assessment shall depend on the process from which the material arises, i.e. any material which is of inconsistent quality shall be inspected and assessed more frequently.
- The assessment shall focus on the suitability of the individual materials for the purposes listed in Section 4.2.2 above, with particular attention to be paid to the level of contamination, the mechanical stability and the permeability.
- In accordance with Condition 1.16 of IED Licence W0146-02 bio-stabilised waste shall only be used as landfill cover where it has been stabilised in accordance with Licence Condition 1.14.4 (or meets the requirements of an alternative protocol as may be agreed under Licence Condition 1.14.2), complies with any requirements of the Department of Agriculture, Fisheries and Food relating to the management of animal by-products and has been agreed in advance with the Agency.
- In accordance with the Agency Guidance Note on MSW Landfill Daily and Intermediate Cover (Draft), construction and demolition fines shall

only be used as landfill cover where it meets the respiration activity (AT_4) limit <10mg O_2/g DM and is of predominantly C&D origin.

- In accordance with the Agency Guidance Note on MSW Landfill Daily and Intermediate Cover (Draft), incinerator bottom ash (IBA) shall be accepted for intermediate cover and engineering use. Full characterisation of chemical composition has been undertaken and approved by the Agency.
- Non-hazardous IBA shall be accepted where evidence is supplied of continued classification of the ash as non-hazardous. This information will be submitted to Knockharley on a monthly basis, as agreed with the Agency. IBA consists mainly of aggregates such as sand, stone, glass, porcelain and ceramics, in addition to small quantities of ferrous and non-ferrous metals. This composition makes it a useful recovery engineering material.

1.2. Waste Handling - Incinerator Bottom Ash (IBA)

- IBA will not be accepted unless its temperature is less than 35 degrees centigrade. The temperature will be measured before the ash is tipped using a hand held thermometer. Records of the temperature of each load will be recorded on the weighbridge docket. These records will be retained on site.
- IBA will not be accepted unless it is damp (i.e. moisture content of approx. 20%). In the event of dust from the IBA being an issue, dampening down will be undertaken, in accordance with operating procedure EMS-OP-04 Suppression of Dust, using clean water from the storage lagoon. If necessary, the IBA producer will be requested to increase the moisture content of the IBA prior to delivery to the facility.

Revision No.	Revision Date	Description	Sections Affected	Revised By	Approved By
001	27/01/16	EMS-OP-10	All	GH	TF
002	21/06/19	Name Change	Header	POR	SS

1.0 Scope

This procedure applies to record-keeping in relation to the acceptance of waste, into Knockharley Landfill, at the weighbridge.

2.0 Responsibility

The Facility Manager will implement this procedure. The Weighbridge Operator and Site Supervisor will ensure procedure is correctly followed.

3.0 References

EMS-EF-23 Certificate of Waste Consignment

EMS-EF-23b Certificate for Waste Consignment

EMS-EF-22 Waste Acceptance Control Form

IED Licence W0146-02

4.0 Procedure

4.1. Before a waste stream can be accepted on Knockharley Landfill its suitability for acceptance under the site licence must be verified. All wastes accepted on site must comply with the following licence conditions:

"1.4 Municipal Waste, Commercial Waste and Industrial Waste may be disposed of at the facility subject to the maximum quantities and other constraints listed in Schedule A: Waste Acceptance, of this licence.

1.5 No hazardous wastes or liquid wastes shall be disposed of at the facility.

1.6 Only waste that has been subject to treatment shall be accepted for disposal at the landfill facility.

(i) Treatment shall reflect published EPA technical guidance as set out in Municipal Solid Waste – Pre-treatment and Residuals Management, EPA, 2009.

(ii) With the agreement of the Agency, this condition shall not apply to:

- *inert wastes for which treatment is not technically feasible;*
- *other waste for which such treatment does not contribute to the objectives of the Landfill Directive as set out in Article 1 of the Directive by reducing the quantity of the waste or the hazards to human health or the environment.*

1.7 Whole use tyres (other than bicycle tyres and tyres with an outside diameter greater than 1400mm) shall not be disposed of at the facility. Shredded tyres shall not be disposed of at the facility.

1.8 No waste which in the conditions of the landfill, is explosive, corrosive, oxidising, highly flammable or flammable as defined in EU Council Directive 91/689/EEC shall be accepted at the landfill

1.9 Gypsum wastes shall not be placed in any landfill cell accepting biodegradable waste."

1.13.1 *Unless otherwise specified by the Agency, the following limits shall apply:*

(i) *From 1 July 2010 to 30 June 2013 inclusive, a maximum of 47% by weight of municipal solid waste (MSW) accepted for disposal to the body of the landfill shall comprise biodegradable municipal waste (BMW), measured on a calendar year basis or, in 2010 and 2013, part thereof*

(ii) From 1 July 2013 to 30 June 2016 inclusive, a maximum of 30% by weight of MSW accepted for disposal into the body of the landfill shall comprise BMW, measured on a calendar year basis or, in 2013 and 2016, part thereof, and

(iii) From 1 July 2016, a maximum of 15% by weight of MSW accepted for disposal to the body of the landfill shall comprise BMW, measured on a calendar year basis or, in 2016, part thereof."

4.2. Schedule A of IED Licence W0146-02 allows for the acceptance and recovery of the following wastes:

Disposal	**Recovery**
Household	Construction and Demolition
Commercial	
Industrial	

4.3. If a waste enquiry contains information on a waste which may be suitable for disposal on Knockharley Landfill, but the waste type is not detailed in the tables, then *SEHL* may have to approach the EPA to obtain permission for the waste to be accepted on site.

4.4. Completion of EMS-EF-22 Waste Acceptance Control Form

4.4.1. The Waste Acceptance Control Form must be completed for each type of waste for which disposal is sought. Waste will not be accepted onto site until this completed form has been received. EMS-EF-22 only needs to be completed once for each separate waste stream.

4.4.2. EMS-EF-22 must be completed by the waste producer or broker and signed by a responsible person to declare that the information contained is correct. The form should be completed as fully as possible in order to allow a true picture of the waste type to be ascertained. Any relevant waste analysis information or leachability test information should be attached to the form.

4.4.3. The EWC number for the waste must be included on the form. It may be possible that the waste stream contains more than one waste type in which case additional waste catalogue numbers can be included at the bottom of the sheet.

4.4.4. Details of the treatment the waste has been subject to, and if no treatment has taken place, details of why the waste is exempt from treatment, must be included on the form.

4.4.5. Completed Waste Acceptance Control Forms must be returned directly to Knockharley Landfill Site at the address included on the form or faxed on (041) 9821750. If any assistance is required in their completion, please call the Site Manager on (041) 9821650. Once the completed form has been received and

assessed, Knockharley Landfill will contact the customer to confirm whether the waste is acceptable on site.

4.4.6. **Important Note:** Completion of the Waste Acceptance Control Form does not necessarily guarantee acceptance of the waste stream at Knockharley Landfill.

4.4.7. Further details for the completion of the form are as follows:

- **Customer**: this is defined as the client approaching SEHL seeking disposal of waste, e.g. waste company. Full contact details of this customer must be recorded
- **Waste producer**: this is defined as the actually producer of the waste, e.g. the industry from which the waste is collected. Full contact details of waste producer must be provided.
- **Waste Collectors:** All Waste collectors must provide SEHL with copies of up to date collection permits which are maintained on-site.
- The **process** producing the waste must be accurately defined e.g. a chemical, manufacturing, food preparation, packaging process.
- **What does the waste look like**: A full description of the waste should reference whether it is a solid, or powder, its colour, mixed appearance, and if there is an odour.
- **Chemical composition** - this data comes from analysis completed on the waste at a certified laboratory. In house results can only be used for reference purposes. All wastes must be tested for their leaching characteristics as detailed in the Landfill Directive. This provision may not apply to inert wastes for which treatment is not technically feasible.
- **Treatment** means the physical, thermal chemical or biological processes, including sorting that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery.
- **Delivery Method** - type of truck used to transport waste. All truck must have automatic netting.
- **Signing**: In signing this form you confirm that you have completed this form as accurately as possible.

4.5. All waste carriers must hold a waste collection permit in accordance with the Waste Management (Collection Permit) Regulations 2007. Meath County Council is the nominated local authority for the North Eastern Region. A copy of the waste collection permit detailing types of waste specified on the permit must be submitted with the waste acceptance control form.

4.6. Information on Biodegradable content of Municipal Waste

4.6.1. The biodegradable content of each load of municipal waste accepted at the facility must be determined.

4.6.2. The producer of the waste, or in default the person responsible for its management, is responsible for submitting this information to the facility.

4.6.3. Each waste producer bringing waste to Knockharley Landfill will receive correspondence requesting this information and a table listing the specific waste types for which information is required (see Appendix 1).

4.7. Completion of EMS-EF-23 & 23b Certificate of Waste Consignment

4.7.1. All Waste Carriers must complete Certificate of Waste Consignment Form for each load of waste received on site.

4.7.2. This details the name and address of the waste carrier - including waste collection permit, & the composition and nature of the waste for disposal. Other information required includes the vehicle registration number and the European Waste Catalogue (EWC) code.

4.7.3. The net weight of the load is inserted on this form by the weighbridge operator.

4.7.4. Extra details on form 23b for soil are: excavation cell reference number, engineers name & company and composition/nature of waste.

4.7.5. This form is retained on site by the licensee to comply with the planning decision granted by An Bord Pleanála. There is no requirement for the waste carrier to retain a copy of the Certificate of Waste Consignment.

4.8. Leachate Removal

4.8.1. IED Licence Condition 3.11.7 states all tanks and containers, including tankers used to transport leachate from the facility, shall be labelled to clearly indicate their contents. The weighbridge operator shall check all tankers entering the site have the appropriate labelling.

Appendix 1

Dear Waste Producer,

Re: Waste Acceptance at Knockharley Residual Landfill

As you may be aware the EPA reviewed most of the licences of the active landfill facilities in the state last year including those of SEHL. Ostensibly the purpose of the review was to limit the amount of biodegradable waste disposed of at landfill in line with European and national policy and legislation. Further summary details of the relevant policy, legislative and licence requirements are attached to this letter.

In order for the landfill to comply with the requirements of the revised IED licence (W0146-02) each landfill customer will be required to quantify the biodegradable content of each municipal or similar waste stream delivered to the landfill.

Accordingly, I request that you supply waste treatment information relating to the waste streams which are accepted at this facility from your company. "Waste treatment" covers separately collected waste from 2-bin or 3-bin systems or residual waste from a processing facility. There are two options to calculate the biodegradable content depending on the complexity of the treatment system:

1. **Separately Collected**
   Where it can be identified that the residual waste arise from a 2-bin or 3-bin collection or a combination it may be possible (and more straightforward) to apply the EPA's predetermined factors for biodegradable content. The resultant biodegradable content factor will be acceptable to SEHL provided that the methodology is clearly auditable. Reference: EPA Approved Factors to Calculate the BMW Content of Municipal Waste Streams available from EPA

2. **Processed Residual Waste**
   In the case of more complex waste streams where there is a combination of residual waste from processing (and from separately collected systems) SEHL advises that the biodegradable content of the residual waste from the process be established through testing. The testing regime should follow the EPA's Draft Protocol for the Evaluation of BMW sent to Landfill by Pre-treatment Facilities.

In order to progress this process, which will apply to all waste delivered from 1st July 2010, I enclose a table listing all relevant waste streams delivered by you to the landfill. I would be obliged if you could complete this table detailing the treatment to which **each waste stream** is subjected (See EPA guidance document) prior to disposal at this facility as well as the most appropriate EPA approved factors to calculate BMW content of **each Municipal Solid Waste (MSW) stream** (See EPA Approved BMW factors). Please note that the BMW factors only apply to Municipal Solid Waste.

The information which you provide will feed into a summary waste report on the quantity of MSW and BMW accepted at the landfill which will be submitted to the EPA on a quarterly basis as per licence condition 11.10. The information will also be held on file at this facility as the EPA have advised that they may audit these reports in order to verify data reported to them in quarterly summary reports.

Your cooperation with regard to the above will be greatly appreciated. SEHL staff are available to assist you and discuss the future management of your waste streams.

If you have any queries in relation to this correspondence, please contact Thomas Finnegan at 041-9821650.

Yours Sincerely

Landfill Manager
Knockharley Landfill

Biodegradable Municipal Waste

1. Background Information

The EPA advised that the reasons for initiating the review were as follows:

- To give effect to articles 5 and 6 of Council Directive 1999/31/EC on the landfill of waste (the Landfill Directive) regarding the treatment of waste prior to landfill and diversion of biodegradable municipal waste from landfill.

- To incorporate limits on the acceptance of biodegradable municipal waste at landfill (expressed in the document *Municipal Solid Waste - Pre-treatment and Residuals Management:* ***An EPA*** *Technical Guidance Document* published 19 June 2009) that have regard to the need to implement and achieve landfill diversion targets set out in Landfill Directive. The diversion of biodegradable municipal waste will, *inter alia,* reduce landfill gas production and have consequent benefits regarding greenhouse gas emissions and the potential for odour nuisance.

The conditions limiting the acceptance of biodegradable municipal waste will contribute to implementation of the National Strategy on Biodegradable Waste (Department of the Environment, Heritage and Local Government, 2006). The principal new licence conditions were related to the following:

1. The requirement to treat all waste prior to acceptance for disposal (condition 1.6).

2. The imposition of new limits on the amount of biodegradable municipal waste that can be accepted at the facility (condition 1.13.1).

3. The need to measure waste intake and report compliance with the conditions described in items 1 and 2 above (condition 11.10).

2. IED Licences

In considering all of the above the EPA issued new licenses to landfills in late March 2010.

The new licence contained several conditions relating to waste treatment and biodegradable municipal waste content, the most important of which are outlined below:

1.6 Waste Treatment
Only waste that has been subject to treatment shall be accepted for disposal at the landfill facility.
(i) Treatment shall reflect published EPA technical guidance as set out in *Municipal Solid Waste – Pre-treatment and Residuals Management, EPA 2009*
(ii) With the agreement of the Agency, this condition shall not apply to:
- inert wastes for which treatment is not technically feasible:
- other waste for which such treatment does not contribute to the objectives of the Landfill Directive as set out in Article 1 of the Directive by reducing the quantity of the waste or the hazards to human health or the environment.

1.13 Limit on acceptance of biodegradable Municipal waste
1.13.1 Unless otherwise as may be specified by the Agency, the following limits shall apply:
(i) From 1 July 2010 to 30 June 2013 inclusive, a maximum of 47% by weight of municipal solid waste (MSW) accepted for disposal to the body of the landfill shall comprise biodegradable municipal waste (BMW), measured on a calendar year basis or, in 2010 and 20 13, part thereof,

(ii) From 1 July 2013 to 30 June 2016 inclusive, a maximum of 30% by weight of MSW accepted for disposal to the body of the landfill shall comprise BMW, measured on a calendar year basis or, in 20 13 and 20 16, part thereof, and

(iii) From 1 July 2016. a maximum of 15% by weight of MSW accepted for disposal to the body of the landfill shall comprise BMW, measured on a calendar year basis or. in 2016, part thereof.

5.3 Waste Acceptance and Characterisation Procedures
Within one month of the date of grant of this licence, the licensee shall submit to the Agency for its agreement updated written procedures for the acceptance and handling of all wastes. These procedures shall include details of the treatment of all waste to be carried out in advance of acceptance at the facility and shall also include methods for the characterisation, classification and coding of waste. The procedures shall have regard to the Council Decision (2003/33/EC) establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC on the landfill of waste.

11.10 Reporting to Demonstrate Compliance with Diversion Targets

The Licensee shall report to the Agency such data and records, and at such frequency, as may be specified by the Agency in order to demonstrate compliance with the requirements of Condition1.13.1. From 1 July 2010 and unless otherwise advised by the Agency, the licensee shall submit quarterly summary reports to the Agency within one week of the end of each quarter on the quantity of MSW and BMW accepted at the landfill during the preceding quarter and on a cumulative basis for the calendar year to date. The report shall detail the tonnage of MSW and BMW accepted and the basis (including all calculation factors) on which the figures have been calculated.

3. EPA Documentation

Following on from the issuing of new waste licences the EPA held a Biodegradable Municipal Waste (BMW) workshop on the 24th June 2010. Over 185 delegates attended the event which was held as a follow-on to an October 2009 event in Athlone. The objective of the day was to present information to landfill operators (and other stakeholders in the waste sector) in relation to the calculation and reporting of BMW disposed of at landfills. All of the presentations are now on the EPA website and the following is the link: http://www.epa.ie/news/events/old/

The EPA have also issued the following guidance documents which are available on the EPA website:
http://www.epa.ie/downloads/advice/waste/municipalwaste/

EPA Approved Factors to Calculate the BMW Content of Municipal Waste Streams
Table of EPA approved factors to calculate the BMW content of municipal waste streams. Factors have been derived from studies undertaken by the EPA and will be reviewed and updated as deemed necessary from time to time.

Draft Protocol for the Evaluation of BMW sent to Landfill by Pre-treatment Facilities
Sampling & monitoring regime which will provide acceptable evidence to the EPA of BMW content of MSW sent to landfill

Municipal Solid Waste - Pre-treatment & Residuals Management - An EPA Technical Guidance document
The purpose of this document is to set out the Environmental Protection Agency (EPA) standard for minimum acceptable pre-treatment for Municipal Solid Waste accepted for landfilling or incineration at EPA licensed waste facilities. The Guidance requires operators of landfills to demonstrate via their waste acceptance policy (as established by licence conditions) that waste accepted at these facilities has been subjected to appropriate pre-treatment.

Waste Type	EWC code	Treatment to which this waste has been subjected to	Is this waste Municipal Solid Waste (MSW). Yes/No	If MSW please insert BMW factor to be applied to this waste type
MRF Municipal	19-12-12			
Mixed MSW	20-03-01			

Revision No.	Revision Date	Description	Sections Affected	Revised By	Approved By
001	27/01/16	EMS-OP-11 Waste Acceptance at Weighbridge	All	GH	TF
002	05/02/18	EMS-OP-11 Waste Acceptance at Weighbridge	Section 3	MW	TF
003	23/07/18	Update with reference to 23b soil form	Section 4.7 & 4.7.4	MW	TF
004	21/06/19	Name Change	Header & throughout	POR	SS