BASELINE ASSESSMENT REPORT MILTOWN COMPOSTING SYSTEM LTD. LICENCE REVIEW.

Prepared for:

MILTOWN COMPOSTING SYSTEMS LTD.,

MILTOWNMORE,

FETHARD,

CO. TIPPERARY

3260 - Milltown
November 24h, 2017

ISSUE/REVISION INDEX

Revision				Pages Revised	Remarks
#	Prep.	Rev.	Date		
PA	JR				Issue Draft for Internal Review
PB	JR			All	Issue Draft for Client's Review
PC	JR				Issue Final Document

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APPENDICES

1. INTRODUCTION

JRE Ltd. (JRE) was retained by Miltown Composting Systems (Miltown) to complete an environmental baseline assessment for their in-vessel aerobic composting facility located at Miltownmore, Fethard, Co. Tipperary.

The assessment was completed in accordance with Stages 1 to 3 of the European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions. Article 22(2).

The guideline document outlines the requirements under the Industrial Emissions Directive (IED) and includes that under Article 22(1) of 2010/75/EU "*without prejudice to Directive 2000/60/EC, Directive 2004/35/EC, Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration and to the relevant Inion law on soil protection, the competent authority shall set permit conditions to ensure compliance with paragraphs 3 and 4 of this Article upon definitive cessation of activities".*

Article 22, paragraphs 2 to 4 provide for the activities that would be required to be completed during cessation of activities where specified hazardous materials were stored and/or utilised to identify and mitigate potential soil or groundwater impacts. A baseline report will be completed to provide a comparison following cessation of activities to provide information on the controls that were utilized at the facility during operations. Article 22(2) specifies that the following information should be included in a baseline report:

- *Information on the present use and, where available, past uses of the site;*
- *Where available, existing information on soil and groundwater measurements that reflect the state at the time the report is drawn up or, alternatively, new soil and groundwater measurements having regard to the possibility of soil and groundwater contamination by those hazardous substances to be used, produced or released by the installation concerned.*

The main stages in producing a baseline report are provided in the European Commission Guidance concerning baseline reports and outlines whether a baselines report needs to be completed, and if it does, the information to be included in the baseline report. There are eight (8) stages identified in the baseline report process, and include:

- **Stages 1 – 3**: to decide whether a baseline report is required
- **Stages 4 – 7**: to determine how a baseline report is to be prepared
- **Stage 8**: to determine the content of the report

During the operation of the facility on site conditions where an activity produces, releases or stores relevant hazardous substances and will have regard to assessment was identified as: Provisions for this Report.

Miltown Composting Systems Limited is applying to the Environmental Protection Agency (EPA) for a review of their current Waste Licence (Reg No. W0270-01) for its organic composting operation in Miltownmore, Fethard, Co. Tipperary. The facility originally began operations in 2004 under a Waste Permit (Ref. WP 019 02) issued by South Tipperary County Council. The facility was issued an Environmental Protection Agency (EPA) Waste Licence (Ref. W0270-01) issued on the 9th of September 2010. The facility also has approval from the Department of Agriculture Food and the Marine (DAFM) to operate as a composting plant accepting Category 2 and Category 3 animal by-products.

The facility operates according to the First Schedule to EPA Act 1992 as amended;

11.4. (b): Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities, (other than activities to which the Urban Waste Water Treatment Regulations 2001 (S.I. No. 254 of 2001) apply): (i) biological treatment.

The site is located in the townland of Miltownmore, approximately 6 km to the east of Fethard and 10 km south west of Cashel. The site is accessed by a laneway off the Rosegreen to Fethard L1409. The site encompasses approximately 5.9 hectares. It is at an elevation of approximately 139m Ordnance Datum (OD) and slopes gently to the west from a high point in the east.

In the case of an application for a licence review for an activity that involves the use, production or release of relevant hazardous substances (as defined in Section 3 of the EPA Act 1992 as amended), it is required that a baseline report be completed in accordance with section 86B of the EPA Act 1992 as amended and Part 5 of the European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions 2014/C 136/03.

The purpose of the report is to determine the potential of soil and groundwater contamination at the site. As the existing facility operations does not involve the storage of hazardous substances but does use diesel fuel for operations associated with the site activity, a baseline report is required.

2. DETERMINATION AS TO THE REQUIREMENTS FOR A BASELINE REPORT

2.1. Stage 1

Under Stage 1 there is a requirement to identify potential hazardous substances used, produced or released at the facility. There is also a requirement to determine whether or not hazardous substances are used, produced or released with a view to determining the need to prepare a baseline report.

The Miltown Composting facility in Fethard provides aerobic treatment and recovery for biological waste materials. Because all the waste collected is non-hazardous domestic and commercial waste there are no hazardous materials used in the recovery process at the composting facility. A review of on-site documents did not indicate any incident on site with the potential for soil / groundwater contamination. The main materials stored on site and their potential as a hazardous substance are outlined in Table 2A below.

Table 2A: Products that May Potentially Contain Hazardous Substances at the Miltown Facility, Fethard

Substance Name	Approximate Quantity On-site at Any 1 time	Control Measures for Storage	Potential Hazardous Substance		Comment
			Yes	No	
Diesel	1,000 litres	Stored in a double skinned plastic tank. Nozzle area also included inside secondary containment	✓		No observed staining or leaks around base of tank. Tanks are located in a bund structure on hard standing yard to mitigate any migration to ground or groundwater. Groundwater monitoring results indicate no impacts to groundwater quality from site activities.
Office Cleaning Products / Disinfectants	10 litres	Small volumes of office cleaning materials stored inside the site office building	✓		Small volumes of cleaning products that may contain trace amounts of hazardous materials (e.g., bleach).
Leachate	5,000 litres	This leachate is stored in a containment tank and recirculated into the composting process	✓		All leaks and spills of leachate will be directed to the dedicated leachate drainage system in the new reception area and all leachate will be recirculated back through the process.

Of the materials used on site only three were identified that may be considered to contain hazardous materials. These materials and their uses are outlined in Table 2B below.

Table 2B: Use of Products that May Potentially Contain Hazardous Substances at the Miltown Facility, Fethard

Use of Hazardous Substances	There are no hazardous substances used at the Miltown site, except potentially; • Fluorescent tubes (containing mercury) • Detergents / Disinfectants (which may contain hazardous substances such as bleach) • Ancillary fuel storage for on-site vehicles (e.g., loaders) and delivery trucks. • Leachate
Production of Hazardous Substances	There are no hazardous substances produced on site
Release of Hazardous Substances	There are no hazardous substances released from the site

2.2. Stage 2

Under Stage 2 there is a requirement to identify which of the hazardous substances from Stage 1 are 'relevant hazardous substances' as outlined under c. The site may discard those hazardous substances that are incapable of contaminating soil or groundwater as long as they justify and record the decisions taken to exclude those certain hazardous substances.

and

To restrict further consideration to only the relevant hazardous substances in view of deciding on the need to prepare and submit a baseline report. The potential hazardous substances brought forward from Stage 1 are outlined in Table 2C below.

Hazardous Material	Regulation
Fluorescent tubes	Containing mercury EC No. 231-106-7 as per Article 3 of Regulation (EC) No 1272/2008
Office cleaning products and disinfectants which may contain hazardous substances (e.g., bleach).	For example, containing bleach EC No. 226-218-8 as per Article 3 of Regulation (EC) No 1272/2008
Ancillary fuel storage on-site for vehicles and dryers.	EC No. 302-659-9 as per Article 3 of Regulation (EC) No 1272/2008
Leachate	As per Article 3 of Regulation (EC) No 1272/2008

2.3. Stage 3

For each relevant hazardous substance brought forward from stage 2, there is a requirement to identify the actual possibility for soil and/or groundwater contamination at the site of the installation. Stage 3 includes the probability of release for each substance and their consequences taking account of;

- the quantities of each hazardous substance or group of similar hazardous substances concerned

- how and where hazardous substances are stored, used and to be transported around the installation.

- where they pose a risk to be released

- In case of existing installations also measures that have been adopted to ensure that it is impossible in practice that contamination of soil or groundwater takes place.

and

To identify which of the relevant hazardous substances represent a potential pollution risk at the site based on the likelihood of release of such substances occurring. For these substances, information must be included in the baseline report.

i) Fluorescent Tubes

Quantity and Use	Potential for Contamination of Soil/Groundwater	Decision
Minimal quantities of tubes are stored on site. They are stored in containers in a storage area with an impervious floor. Used tubes are transported off site for recycling on a regular basis.	No potential.	Exclude from further consideration.

ii) Disinfectants

Quantity and Use	Potential for Contamination of Soil/Groundwater	Decision
Stored in containers inside site office building. Limited amounts stored at any one time.	No potential.	Exclude from further consideration.

iii) Fuel Storage

Quantity and Use	Potential for Contamination of Soil/Groundwater	Decision
Diesel use on-site is mainly associated with facility equipment such as front end loaders. No diesel is used in the production process. The diesel is stored in a 1,100 litre double skinned plastic tank inside a covered concrete bund.	Risk from failure of fuel storage tank, storage bund, and/or filling operations. Low risk due to design of storage tank and secondary containment.	Bund will be certified in line with EPA Licence requirements

iv) Leachate

Quantity and Use	Potential for Contamination of Soil/Groundwater	Decision
Stored in a 5,000 litre containment tank and recirculated into the composting process.	No potential.	Exclude from further consideration.

3. CONCLUSION

On completion of stages 1 – 3 of the baseline screening report it is considered that a baseline report is not required due to the following;

- Limited quantities of hazardous substances (i.e., mercury tubes and disinfectants / detergents) stored on site mean that the possibility of contamination of soil or groundwater is minimal. The proper storage of materials and location of the materials inside buildings with hard standing floors provide added protection to soil and groundwater receptors.

- Diesel storage on site is in dedicated tank with secondary containment including containment for dispenser nozzle, where applicable. Area surrounding the tank bunds has concrete surface which provides an additional barrier between the tank and the soil and groundwater receptors.
- Leachate is stored in a containment tank and recirculated into the composting process. All leaks and spills of leachate will be directed to the dedicated leachate drainage system in the new reception area and all leachate will be recirculated back through the process.

Groundwater monitoring results for samples collected as part of the existing site licence indicated that the site activities have not negatively impacted groundwater quality at the site.