BASELINE ASSESSMENT REPORT FOR CONNOLLY'S RED MILLS ANIMAL FEED MILL LICENCE APPLICATION.

Prepared for:

CONNOLLY'S RED MILLS,
29 BARROW MOUNT DRIVE,
GRANGE LOWER,
GORESBRIDGE,
CO. KILKENNY

3254 - Redmills
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APPENDICES

1. INTRODUCTION

JRE Ltd. (JRE) was retained by Connolly's Red Mills (Red Mills) to complete an environmental baseline assessment for their animal feeds mill facility at Goresbridge, Co. Kilkenny.

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.

Connolly's Red Mills is applying to the Environmental Protection Agency (EPA) for an Industrial Emissions (IED) Licence for its milling operations in Goresbridge, Co. Kilkenny. The animal feed mill site has been in operation at their Goresbridge site since 1908, and consists of the Grain Mill and adjacent silos, warehouses/storage buildings, an administrative block, weighbridge and car park, grain storage sheds, a collection of small buildings housing boiler, compressors, workshop and miscellaneous plant.

The feed mill falls under 7.8 (a) The treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed from:

> (iii) animal and vegetable raw materials, both in combined and separate products, with a finished product production capacity in tonnes per day greater than: (I) 75 if A is equal to 10 or more; or (II) [300-(22.5 x A)] in any other case, where 'A' is the portion of animal material (in percent of weight) of the finished product production capacity of the First Schedule of the Environmental Protection Agency Act 1992, as amended.

The facility is located to the north of the village of Goresbridge and the site has an area of approximately 68,877 m². The area surrounding the facility, within the site boundaries consists of hard standing concrete surfaces, see Attachment 2.

In the case of an application for an IED licence 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 screening 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 Red Mills site in Goresbridge produces cereal based animal feed stuffs at the feed mill facility on the site. Because all of the products produced at the facility are for animal consumption there are no hazardous material used in the production process at the mill 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 Red Mills Facility, Goresbridge

Substance Name	Approximate Quantity On-site at Any 1 time	Control Measures for Storage	Potential Hazardous Substance		Comment
			Yes	No	
Fluorescent Tubes	varies	Stored in Dedicated Containers	✓		Recycled by Irish Lamp – Stored inside so no potential migration of mercury to ground or groundwater
Diesel	5,000 litres	Stored in PVC tank with secondary containment. Nozzle area also included inside secondary containment	✓		No observed staining or leaks around base of tank. Tanks are located in concrete bund on hard standing yard to mitigate any migration to ground or groundwater. Yard surface water is directed to on-site oil/water separator prior to discharge.
Myco Curb	2,000 litres	Contained in IBCs on hard standing		✓	Not considered a hazardous substance – MSDS included in Attachment 1.
Soya Oil	30,000 litres	Bulk Tank in Concrete Bund			Not considered a hazardous substance – MSDS included in Attachment 1.
Molasses	37,000 litres	Bulk Tank in Concrete Bund		✓	Not considered a hazardous substance – MSDS included in Attachment 1.
Palm Oil	33,000 litres	Bulk Tank in Concrete Bund		✓	Not considered a hazardous substance – MSDS included in Attachment 1.
Whey	85,000 litres	Bulk Tank in Concrete Bund		✓	Not considered a hazardous substance – MSDS included in Attachment 1.
Office Cleaning Products / Disinfectants	50 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).
Ad-Blue	1,000 litres	Contained in IBC on hard standing yard		✓	Not considered a hazardous substance – MSDS included in Attachment 1.

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 Red Mills Facility, Goresbridge

Use of Hazardous Substances	There are no hazardous substances used at the Portloaise 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., forklifts) and dryers.
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 section 4.2 of the EU guidance documentation. 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

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, 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 the operation of forklifts for the transfer of feed ingredients and products and also for the grain dryers. No diesel is used in the production process. The diesel is stored in a 5,000 litre double skinned tank inside a 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

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.