Environmental Risk Assessment

Wrexham Breakfast Cereals - Environmental Permit Variation Application

Kellogg Company of Great Britain Limited

Prepared by:

SLR Consulting Limited

3rd Floor, Brew House, Jacob Street, Tower Hill,
Bristol, BS2 0EQ

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Basis of Report

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1.0 Introduction

SLR Consulting Limited (SLR) has been instructed by Kellogg Company of Great Britain Ltd (Kellogg's) to prepare an environmental risk assessment (ERA) in support of an environmental permit (EP) variation application for its Wrexham Breakfast Cereals Site, Bryn Lane, Wrexham Industrial Estate, Wrexham, LL13 9UT.

This ERA has been prepared in accordance with the Environment Agency's (EA) Guidance 'Risk assessments for your environmental permit' (November 2023)[1] which is adopted by Natural Resources Wales (NRW). It is a simple assessment of the risks to the environment and human health from accidents, noise and fugitive emissions that may be associated with the proposed changes at the Site. The aim of the assessment is to identify any significant risks and demonstrate that the risk of pollution or harm will be acceptable by implementing appropriate measures to manage these risks.

The risk assessments for your EP guidance requires that all receptors that are near to the Site and could reasonably be affected by the activities are identified and considered as part of the ERA. Therefore, for the purpose of this report:

- A 2km radius has been adopted in reviewing potentially sensitive receptors of cultural and ecological importance; and
- A radius of 500m from the proposed permit boundary has been adopted for all other potentially sensitive receptors (for example, residential, commercial, industrial, agricultural, and surface water receptors).

For an overview of the development and further information regarding what's being applied for, please refer to the NTS in Section 2 of the application.

1.1 Overview and Approach

This section outlines the procedure that has been followed in the undertaking of the ERA for the site:

Step One	Identify risks and their sources for the site
Step Two	Identify receptors at risk from the site
Step Three	Identify pathways between sources and receptors
Step Four	Assess risks relevant to the site activities and determine if they can be screened out
Step Five	State measures proposed to control unacceptably high risks
Step Six	Present your assessment

Step One is a screening step to identify the potential risks to the environment from the proposed development. Aspects that would likely require assessment include:

- Odour;
- Noise & Vibrations;
- Point source emissions to air;
- Discharges such as to surface water, sewer or groundwater;
- Fugitive Emissions (including dust, mud, litter, and pests); and

[1] EA Risk assessments for your environmental permit, available at https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit, accessed in August 2023

- Accidents.

Amenity risks associated with odour, noise and vibration, fugitive emissions (including dust, mud, litter, and pests) and accidents are considered relevant in relation to the proposed development.

Step Two identifies people or parts of the environment that could be harmed (at potentially significant risk) by the activity. This section details the site setting and potentially sensitive receptors near the site.

Step Three to Six are outlined in Section 3.0 Environmental Risk Assessment for amenity and accidents risks. A detailed Noise Impact Assessment is presented in document ref. 416.065647.00001_Aurora_NIA dated October 2024. Risk associated with changes to point source emissions to air on Site are presented in the Air Emissions Risk Assessment ref. 416.065647.00001_Aurora_AERA dated October 2024.

Emissions to sewer will be within currently permitted and assessed limits. As such, no risk assessment of emissions to sewer has been undertaken as part of this variation application.

2.0 Site Setting

2.1 Site Setting

The Site is centred on National Grid reference SJ 38780 50500, off Bryn Lane, Wrexham Industrial Estate, Wrexham, LL13 9UT. It is situated at the northern edge of Wrexham Industrial Estate (WIE) approximately 3km east of Wrexham town centre. The Site covers approximately 18 hectares. The Site lies within the local authority of Wrexham County Borough Council. Access to the Site is directly off Bryn Lane to the south-east of the Site.

Located within an industrial estate, the immediate land uses in the vicinity of the Site are as follows:

Table 2-1: Immediate Surrounding Land Use

Direction	Land Use
North	Residential and commercial / industrial properties.
East	Bryn Lane, agricultural land and warehousing.
South	Woodland, recycling centre and further commercial/Industrial premises.
West	Commercial and industrial businesses and woodland

The location of the Site is illustrated in Drawing EP1.

2.1.1 Residential

There are three residential properties to the north of the site, the nearest of which is 55m from the north eastern boundary of the Site.

2.1.2 Agricultural Land

There are several agricultural fields within the vicinity of the Site, the nearest of which are 40m to the Site's eastern and southern boundary.

2.1.3 Woodland

Small areas of woodland site adjacent to the site's southern and western boundary.

2.1.4 Commercial and Industrial

There are numerous commercial and industrial receptors surrounding the Site. The nearest commercial and industrial receptors are adjacent to the north and west of the Site.

2.1.5 Roads

There are several roads within a 500m radius of the Site the closest of which is Bryn Lane adjacent to the east boundary of the Site. The Site is accessed directly off Bryn Lane.

2.2 Geology, Hydrogeology and Hydrology

2.2.1 Geology

A review of the British Geological Survey (BGS)[2] map reveals that the majority of the Site is underlain by a superficial deposit comprising of Glacial Till. No formal BGS descriptions exist for Glacial Till. However, it is considered generally to comprise predominantly clay with varying sand and gravel contents. The Site is within an industrial area and has historically been subject to historical landfilling so superficial deposits are likely to comprise Made Ground.

The bedrock beneath the site is recorded as Permian and Carboniferous rocks of the Salop Formation, described as red-brown sandstone with beds of pebbly sandstone and conglomerate.

2.2.2 Hydrogeology

The underlying bedrock aquifer is identified as unproductive on the Multi-Agency Geographical Information for the Countryside (MAGIC) map[3].

Superficial drift beneath the Site is also recorded as unproductive.

2.2.2.1 Groundwater Vulnerability

MAGIC map shows that the Site lies in an area of unproductive groundwater vulnerability.

2.2.2.2 Source Protection Zones

The Site is not located within a source protection zone for drinking water. The closest source protection zone, Zone III- Total Catchment, is located approximately 300m northwest of the Site.

2.2.3 Hydrology

The Flood Map for Planning[4] identifies parts of the site as lying within a Flood Zone 2 and 3 for surface water and small watercourses, defined as “areas with more than 1% (1 in 100) and 0.1% to 1% (1 in 1000 to 1 in 100) chance of flooding from surface water and/or small watercourses in a given year, including the effects of climate change”. The Site is in a Flood Zone 1 in relation to flooding from Rivers and the Sea however i.e. less than 0.1% chance of flooding in a given year, including climate change.

[2] British Geological Survey (BGS), available at www.bgs.ac.uk, accessed in October 2024

[3] Multi-Agency Geographical Information for the Countryside (MAGIC), available at https://magic.defra.gov.uk/magicmap.aspx, accessed in October 2024

[4] Natural Resources Wales Flood Map for Planning, available at www.Flood Map for Planning (naturalresources.wales), accessed in October 2024

The Site discharges surface water to the Is Y Coed Brook located 40m to the east of the Site at the closest point to the Site boundary. Surface water drains and ponds are situated adjacent to the south and west of the Site boundary also.

2.3 Designated Habitat Sites

A 10km radius was used for identifying European and International Designated Habitat Sites and a 2km radius was used for other designated habitat sites using Defra's MAGIC map application.

2.3.1 European / International Designated Sites

The following European and Internationally Designated Habitat Sites are situated within 10km of the Site:

- River Dee and Bala Lake Special Area of Conservation (SAC) – 3km east;
- Midland Meres & Mosses Phase 2 Ramsar – 4km northwest; and
- Johnstown Newt Sites SAC – 8km southwest.

2.3.2 National / Locally Designated Sites

2.3.2.1 Site of Special Scientific Interest (SSSI)

There are no Sites of Special Scientific Interest within 2km of the Site.

2.3.2.2 National Nature Reserve (NNR)

There are no National Nature Reserves located within 2km of the Site.

2.3.2.3 Ancient Woodland

There are five areas of ancient woodland located within 2km of the Site. The closest of these is located approximately 1km to the southwest of the Site.

2.3.2.4 Other Receptors

None of the following were identified as situated within 2km of the Site:

- National Nature Reserve; and
- Areas of Outstanding Natural Beauty.

2.4 Cultural Heritage

2.4.1.1 Listed Buildings

A review of Data Map Wales[5] identified listed buildings within 2km of the Site, the closest of which is Holt Lodge Farm, located approximately 800m northwest of the site.

2.4.1.2 Scheduled Monuments

There are no Scheduled Monuments located within 2km of the Site.

[5] Data Map Wales, available at https://datamap.gov.wales/maps/new?layer=inspire-wg:Cadw_ListedBuildings#/ accessed in October 2024

2.5 Receptors

Local Receptors within 500m of the Site's proposed revised environmental permit boundary are identified in Table 2-2, along with cultural and ecological receptors as identified above.

The Site's Environmental Setting and the location of designated habitat and cultural features are presented on Drawings EP2 and EP3 respectively.

Table 2-2: Receptors

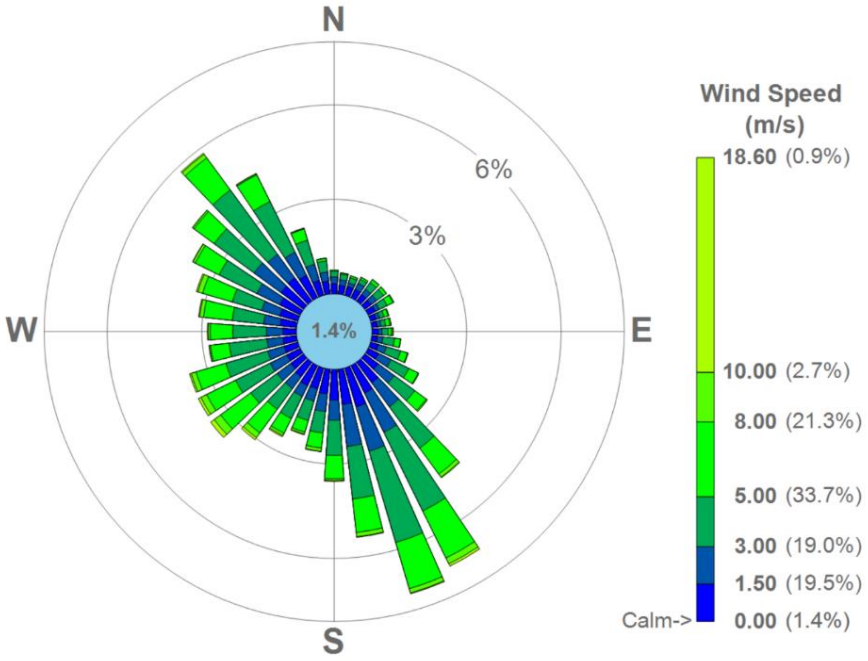
Receptor Name	Receptor Type	Direction	Approximate Distance from Permit Boundary (m)
Local receptors within 500m of the Environment Permit Boundary			
Phoenix Powder Coating & Blast Cleaning	Industrial / Commercial	North	Adjacent
Autoshine Valeting and Detailing	Industrial / Commercial	North	Adjacent
Davern Workwear Ltd t/a Bryn Valley Supplies	Industrial / Commercial	North	Adjacent
Bryn Business Centre	Industrial / Commercial	Northwest	Adjacent
Wrexham Industrial Estate	Industrial / Commercial	West	Adjacent
Woodland	Woodland	South and west	Adjacent
Agricultural Land	Agricultural Land	East	20
Elm Road	Local Transport Network	West	30
Is Y Coed Brook	Water course	East	40
Residential properties on Bryn Lane	Residential	Northeast	55
Certas Energy Wrexham HGV refuelling site	Industrial / Commercial	South	55
Abbey Road	Local Transport Network	West	55
Wellpecs	Industrial / Commercial	Northwest	60
Game Fight Wrexham	Recreational	Northwest	70
Bryn Lane	Local Transport Network	East	75
Stolmet UK	Industrial / Commercial	Northwest	80
CrossFit Wrexham	Recreational	Northwest	95
McCarthy Distribution	Industrial / Commercial	West	100
Wrexham Metal Finishing Limited	Industrial / Commercial	Southwest	115
Wrexham Recycling Centre	Industrial / Commercial	South	125

Receptor Name	Receptor Type	Direction	Approximate Distance from Permit Boundary (m)
Clwyd Compounders Ltd	Industrial / Commercial	West	130
Ridley Wood Road	Local Transport Network	North	140
First Avenue	Local Transport Network	Southwest	145
Bridge Road North	Local Transport Network	Southwest	145
Second Avenue	Local Transport Network	Southwest	150
The Very Group	Industrial / Commercial	Southeast	150
Net World Sports	Industrial / Commercial	Northeast	165
Big Hand Brewing Co. Ltd	Recreational	West	220
Ottilie's Cafe	Recreational	Southwest	245
Redbrook Day Nursery	Educational premises	South	450
Cultural and ecological receptors within 2km of the Environmental Permit Boundary or 10km in the case of SPA, SAC & Ramsar sites			
New Holt Lodge Farm	Grade II Listed Building	Northwest	200
Erlas Hall	Grade II Listed Building	West	1410
Ancient Woodland	Ancient Woodland	Southwest	1000
Church of St Paul	Grade II Listed Building	Southeast	1500
River Dee and Bala Lake	SAC	East	3000
Midland Meres & Mosses Phase 2	Ramsar	Northwest	4000
Johnstown Newt Sites	SAC	Southwest	8000

2.6 Wind Rose

Figure 2-1 shows average wind patterns from 2017-2021 as identified at the Hawarden meteorological station, which is approximately 13km north-west of the Site. The most prominent wind direction is from the southeast. Winds coming from northwest are also fairly frequent, with wind from other directions being more infrequent.

Figure 2-1: Wind Rose from Hawarden Station (2017-2021)



3.0 Environmental Risk Assessment

The following tables, present the assessment in terms of hazards posed, receptors and pathways along with management and residual risks for the following hazards:

- Odour;
- Noise and Vibrations;
- Fugitive Emissions (including dust, mud, litter and pests); and
- Accidents.

Where appropriate, the assessment demonstrates how the risk of pollution or harm can be mitigated by measures to manage these risks**.**

The probability of exposure is the likelihood of the receptors being exposed to the hazard, and is defined as low, medium or high. These terms are qualified as follows:

- Low: exposure is unlikely, barriers in place to mitigate against exposure.
- Medium: exposure is fairly probably, barriers to exposure less controllable
- High: exposure is probable, direct exposure likely with few barriers.

Table 3-1: Odour Risk Assessment and Management Plan

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	**Receptor**	**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequences**	**What is the overall risk**
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? Who is responsible for what?	How likely is the contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Odour from raw material receipt and storage	Potentially sensitive receptors listed in Table 2-2 including commercial, agricultural, residential, and recreational receptors.	Air	All raw materials are stored within silos and tanks, or internally within bags in the factory. The factory buildings are completely enclosed. An Odour Management Plan (OMP) is in place at the facility in accordance with the requirements of the Environmental Permit. The Plan is subject to regular review and updates in accordance with the EMS and the permit. The Plan incorporates odour control measures and requirements for odour monitoring. The Plan also identifies potential sources of odour at the facility, the current odour management measures in place, possible odour control measures should odour issues be identified, and details of timescales and/or review of the control measures in place. Response to identified odour incidents/complaints is managed in accordance with the facility's Odour Procedure (WX-EMS-0026-EMP) and Non-Conformity, Corrective and Preventative Action Procedure (WX-EMS-0015-EMP). The Plant Director is responsible for ensuring odour emissions are kept to a minimum and that any unacceptable odours are mitigated. Records are maintained of emissions, complaints and remedial actions taken.	Unlikely	Potential odour annoyance	Low
Odour from conveying and preparation of raw materials	Potentially sensitive receptors listed in Table 2-2 including commercial, agricultural, residential, and recreational receptors.	Air	The factory buildings are completely enclosed with all manufacturing located within the confines of a building. An Odour Management Plan (OMP) is in place at the facility in accordance with the requirements of the Environmental Permit. The Plan is subject to regular review and updates in accordance with the EMS and the permit. The Plan incorporates odour control measures and requirements for odour monitoring. The Plan also identifies potential sources of odour at the facility, the current odour management measures in place, possible odour control measures should odour issues be identified, and details of timescales and/or review of the control measures in place. Response to identified odour incidents/complaints is managed in accordance with the facility's Odour Procedure (WX-EMS-0026-EMP) and Non-Conformity, Corrective and Preventative Action Procedure (WX-EMS-0015-EMP). The Plant Director is responsible for ensuring odour emissions are kept to a minimum and that any unacceptable odours are mitigated. Records are maintained of emissions, complaints and remedial actions taken.	Unlikely	Potential odour annoyance	Low

Table 3-2: Noise Risk Assessment and Management Plan

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	**Receptor**	**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequences**	**What is the overall risk**
What has the potential to cause harm?	What is at risk/What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? Who is responsible for what?	How likely is the contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Engine noise from vehicles entering and exiting the Site via access road and internal haul roads.	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Air	The factory buildings are completely enclosed with all manufacturing located within the confines of a building. A Noise Management Plan (NMP) is in place at the facility in accordance with the requirements of the Environmental Permit. The Plan is subject to regular review and updates in accordance with the EMS and the permit. A Noise Impact Assessment has been undertaken in support of this environmental permit variation application and the NMP will be updated to reflect its findings and incorporate the new and changed processes on Site prior to their use. The Plan incorporates noise control measures and requirements for noise monitoring. The Plan also identifies potential sources of noise at the facility, the current noise management measures in place, possible noise control measures should noise issues be identified, and details of timescales and/or review of the control measures in place. For further information, please refer to the Noise Impact Assessment and Noise Management Plan. Response to identified odour incidents/complaints is managed in accordance with the facility's Noise Procedure (WX-EMS-0025-EMP) and Non Conformity, Corrective and Preventative Action Procedure (WX-EMS-0015-EMP). The Plant Director is responsible for ensuring noise emissions are kept to a minimum and that any unacceptable emissions are mitigated. Records are maintained of emissions, complaints and remedial actions taken.	Low	Nuisance	Low
Noise from receiving raw material deliveries	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Air		Low	Nuisance	Low
Noise from manufacturing plant	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Air		Low	Nuisance	Low
Noise from alarms	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Air		Low	Nuisance	Low
Failure of bearing or other equipment component on roof leading to excessive	Potentially sensitive receptors listed in Table 2-2 including residential, commercial,	Air		Low	Nuisance	Low

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
abnormal noise emissions	agricultural, residential, and recreational receptors.					

Table 3-3: Fugitive Emissions Risk Assessment and Management Plan

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	**Receptor**	**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequences**	**What is the overall risk**
What has the potential to cause harm?	What is at risk/What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? Who is responsible for what?	How likely is the contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
To Air:						
Dust emissions from vehicle movements to and from the Site	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Air	The design of the process is based on the principles of containment, extraction and treatment. The main sources of dust from activities at the site are from dry raw material receipt and production activities. Dust generated from these sources is captured, extracted and treated by bag filters prior to discharge to atmosphere. Raw materials are stored within silos, tanks, or within a building. Speed limits are implemented for vehicles using the Site. Traffic calming measures are implemented to enforce speed limits and reduce emissions of dust. Site access and haul roads are maintained and repaired to minimise emissions of dust due to uneven and poor surfacing. All roads and operational areas are swept where necessary to reduce dust emissions. Regular, visual inspection of all areas of the site and site boundary are carried out by site personnel. The site has a policy of keeping all doors, windows and louvers closed at all times. This is facilitated by automatic closing mechanism whenever possible. Regular awareness training is also provided to all site personnel of such potential hazard. In the event that significant visual dust is observed at the boundaries of the Site, action will be taken to suppress the dust. The Plant Director is responsible for ensuring dust emissions are kept to a minimum and that any unacceptable emissions are mitigated. Records are maintained of dust emissions, dust complaints and remedial actions taken.	Unlikely	Nuisance	Low
Dust emissions from the loading & unloading of raw material products	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Air		Unlikely	Nuisance	Low
Dust emissions from manufacturing operations	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Air		Unlikely	Nuisance	Low
Open plant doors, windows and louvers.	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Air		Unlikely	Nuisance	Low
To Water:						

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Spillage of bulk liquid food ingredients during delivery.	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Process drains	Drains in vicinity of unloading point are routed to the effluent treatment plant. Drain covers will be deployed during delivery. A spill kit is located in the delivery area which is manned. The emergency preparedness program currently in place has fully trained site personnel which will deal with any spill from a vehicle. All vehicles delivering raw materials / ingredients, packaging and transporting finished goods from the plant are expected to be properly maintained and according to the manufacturer best practices and instructions.	Unlikely This type of incident could potentially occur accidentally or due to a lack of proper maintenance to a transportation vehicle.	Significant spill to onsite effluent treatment plant could affect operation	Low
Leaks of liquid pollutants from vehicles on site (oil, fuel, battery acid).	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Surface water runoff	The site spillage procedure provides effective guidelines to all site. Spill kit stations are also strategically located around the plant. The emergency preparedness program currently in place has fully trained site personnel which will deal with any spill from a vehicle. Any oil, fuel or other liquid contaminant which is potentially washed down the drains, will pass through interceptors before ending up in the surface water collection ponds. Discharges are tested daily – any exceedance would result in the balancing pond outlet being shut, until the discharge is back within permitted limits	Unlikely This type of incident could potentially occur accidentally or due to a lack of proper maintenance to a transportation vehicle.	Potential contamination of surface water	Very Low Very low as a result of maintenance checks, spill procedures and secondary containment in balancing pond
Discharge of in liquid food products in the event of a vessel rupturing, valve or pipe work failure	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Process Drains	Inside the factory equipment is positioned in tiled basins away from fork lift truck movements. Vessels are inspected on a planned maintenance routine. Bulk tanks will be bunded and fitted with an alarm system. CCTV will operate within this area which will provide continuous monitoring Security will check as part of their security patrols Operators will be working within the area	Unlikely	Significant spill to onsite effluent treatment plant could affect operation.	Low Risk Not significant due to containment of pipework inside the building and bunded tanks.
Blockage of pneumatic conveying system resulting in the potential for food dust spillage during the clearing process.	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Surface water runoff	The pneumatic conveying system control monitors interlock signals and will generate alarm signals for the operator to deal with. Failure to clear the fault will result in a controlled stop Spills of any food dust will be collected manually with brush and shovel. In the event of any spills of residual material being washed to drain during rainfall, these could end up in the surface water collection ponds. The roof drains are diverted to the effluent plant in the event of a spill on the roof or roof cleaning.	Unlikely	Potential contamination of surface water	Low
Spillage of non bulk drummed liquids (e.g. cleaning chemicals, lubricants, water treatment chemicals) during movement around site.	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Surface water runoff	Drummed liquids are delivered securely wrapped and palletised with load distributed evenly to minimise the potential for a container to be dropped during movement. An operator would be present during movement to respond immediately to the spill. All fork lift truck drivers are licensed; it is a requirement that log books are filled in prior to first use on each shift to demonstrate the truck is in safe working order.	Unlikely	Potential contamination of surface water	Low

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Containment of fire water in the event of a fire.	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Surface water runoff	The factory is equipped with sprinklers, fire doors and fire detectors linked to a fire control system all designed to minimise the impact of a fire. All these items are tested and maintained frequently to ensure they are functioning correctly. In the unlikely event of fire waters entering the drainage system the spill response procedure requires that fire water be regarded as a pollutant. Discharge from the surface water balancing ponds would be isolated. Effluent treatment plant inlet sump pumps would be turned off to facilitate fire water control.	Unlikely	Potential contamination of surface water	Low
Pests						
Birds, pests and insects attracted to Site	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors.	Land, Water and Air	Kellogg's have existing pest control arrangements on Site which will be continued following the proposed changes to the process lines. Habitat areas on site are maintained in a manner to discourage use by pests. All raw material and waste containers are kept in containers at all times and kept in purposely designed areas which prevent rodents and other animals from gaining access. In the event that birds, pests and insects are identified at the Site appropriate remedial action will be taken. If necessary, a specialist pest control contractor will be employed to relocate the pests. Investigations will be conducted daily by Site personnel of the operational areas to identify birds, pests, and insects. The result of any inspections or investigations as a result of complaints will be recorded. The Plant Director will be responsible for implementing risk management measures in accordance with operational and management procedures.	Unlikely	Nuisance, potential risk to human health	Low
Mud/Litter						
Litter blown from the site onto the highways and the surrounding area.	Adjacent roadways to the plant, footpaths, residential properties and local industry.	Blown over by wind or during adverse weather conditions.	The risk of litter migrating outside the inner perimeter of the plant is controlled by means of a site inspection and cleaning regime. Fencing and the soil embankment making up the perimeter of the site act as a secondary physical barrier. Security is employed on site 24 hours a day 7 days a week. Part of security patrols they are trained on all environmental aspects and how to report them. Monthly environmental site audits.	Unlikely	Nuisance from litter. Dangerous conditions on roads.	Low - Moderate to minimum risk due an effective control system currently in place.

Table 3-4: Accidents Risk Assessment and Management Plan

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	**Receptor**	**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequences**	**What is the overall risk**
What has the potential to cause harm?	What is at risk/What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? Who is responsible for what?	How likely is the contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Leakage of fuel and oils from Site plant and machinery	Local land quality. Groundwater- Medium to Low groundwater vulnerability in the area. Surface water.	Runoff and percolation through ground.	The following measures will be implemented to manage leaks from Site plant: • Spill kits are provided on Site containing appropriate absorbent materials for use in the event of a leakage; • Vehicles on Site are subject to preventative maintenance in accordance with the manufacture's guidance; and • The Site staff undertake daily visual monitoring for evidence of spillage and leakage. The result of any inspections or investigations as a result of complaints will be recorded. The Plant Director will be responsible for implementing risk management measures in accordance with appropriate procedures outlined in the Operating Techniques.	Unlikely	Contamination of surroundings including local land, groundwater and surface waters.	Very Low
Fire	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors. Site personnel.	Air (smoke) and Land (spillages and firewater).	In order to minimise the occurrence of fire, and ensure Site personnel are equipped to deal with any unlikely occurrences, the following measures will be implemented: • No fires are permitted on Site; • Smoking will not be permitted in the operational areas of the Site; • and • Employees receive training in fire assessment and identification, i.e. use of fire extinguishers and emergency procedures; Any fire on Site will be treated as an emergency, in the unlikely event of a fire, these actions will be taken; • Notify the Fire & Rescue Service immediately and NRW as soon as practicable; • Isolate the burning area and attempt to extinguish the fire utilising the on-Site fire extinguishers, if it is safe to do so; • Prevent, if possible, contaminated Site drainage from entering unsurfaced ground; and • Evacuate the Site if the fire is not containable. The operational areas of the Site are inspected daily for any signs of a fire. The plant inspection schedule includes checks of any electrical equipment on Site to ensure that any faults are identified and repaired. The results of all inspections will be recorded. The Plant Director will be responsible for implementing risk management measures in accordance with appropriate procedures in the Operational Techniques.	Unlikely	Harm to human health, harm to operations, pollution of surroundings.	Very low
Flooding	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors. Site personnel.	Land	The Site lies within a Flood Zone 1 in relation to flooding from Rivers and the Sea and therefore has a low probability of flooding. Small external areas of the site are identified as within Flood Zones 2 or 3 from surface water and small watercourses however Kellogg's have mitigated the risk by having implemented a surface water drainage system across the Site which incorporates two balancing ponds to contain excess surface water.	Unlikely	Harm to human health, contamination of groundwater and surface water.	Very low

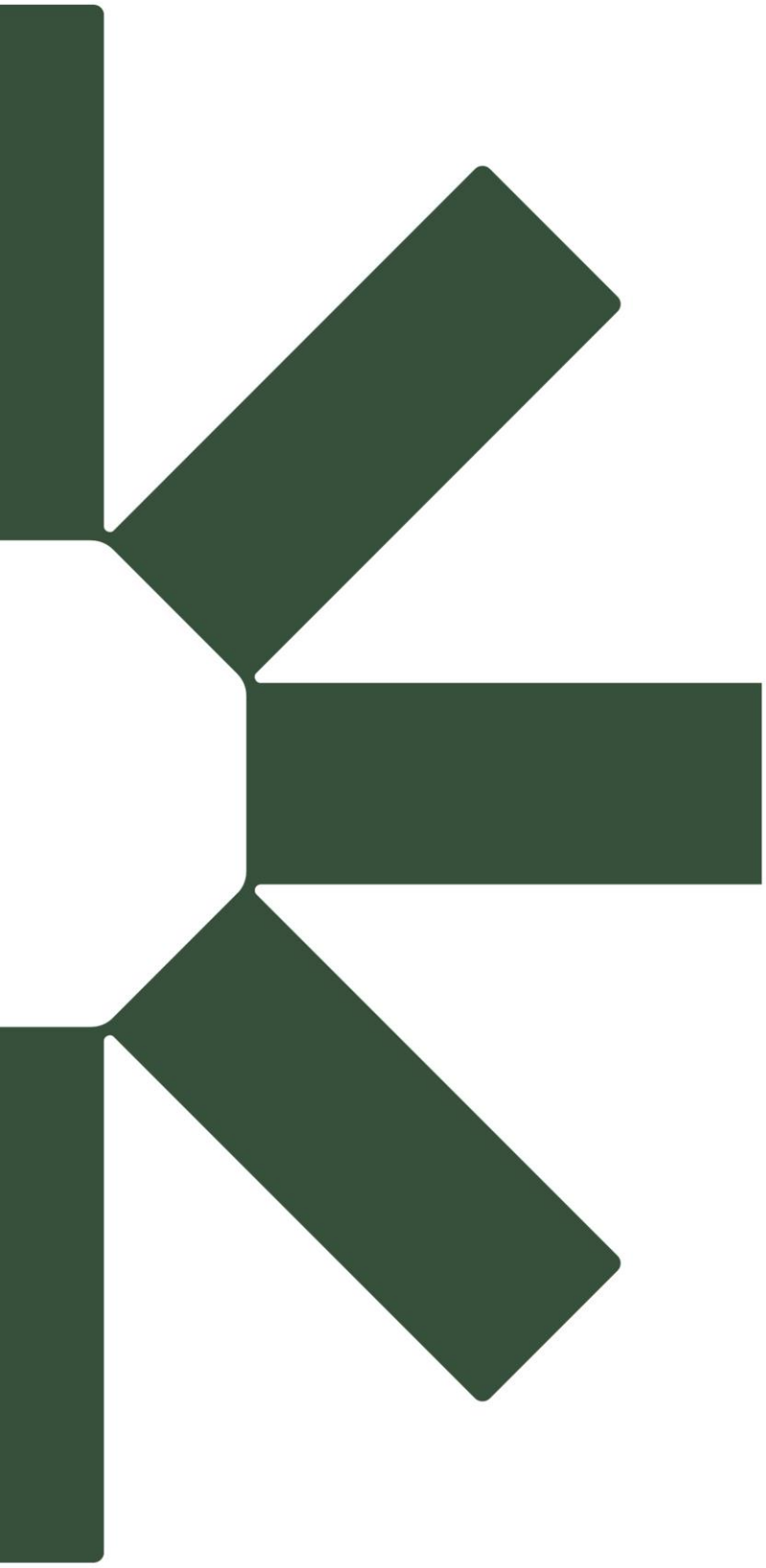
What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Security and Vandalism	Potentially sensitive receptors listed in Table 2-2 including residential, commercial, agricultural, residential, and recreational receptors. Site personnel.	Air, Land and Water	The Site has existing processes in place to keep the Site secure, and prevent unauthorised access: • All visitors are required to gain access via a security gate and use a Sign in/Sign out book, to minimise risk of unauthorised visitors gaining access to the Site; • Secured using CCTV, fencing, and lockable gates to prevent any unauthorised access; • Security infrastructure will be inspected daily to identify deteriorations. In the event that damage is found, then actions will be taken to secure the access and temporary repairs made. Permanent repairs will then be made as soon as practically possible; and • The Site is manned during operational hours and there is security in place outside of these hours The Plant Director is responsible for managing security on Site.	Unlikely	Nuisance, contamination, and harm to human health.	Low

4.0 Conclusion

This ERA has been undertaken in accordance with NRW guidance. The assessment is provided as part of the application for the variation of an existing EP for the Wrexham Breakfast Cereals Site for Kellogg's.

This qualitative risk assessment has considered odour, noise, fugitive emissions, dust, releases to water, litter and potential for accidents and incidents.

The assessment concludes that with the implementation of the risk management measures described above, the risk posed by proposed variation is not likely to be significant.



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