

FOYLE MEATS MELTON RD SIX HILLS MELTON MOWBRAY LE14 3PR

Environmental Permit Application Fugitive and Accidental Emissions Control Document Ref: Attachment B.3.7 FOYLE, SIX HILLS, MELTON MOWBRAY, UK

## 1.0 Fugitive Emissions

### 1.1 Overview

The table below outlines the potential sources of fugitive emissions from the site to land, air and water:

Land	Air	Water
<ul> <li>Chemical Spillage/Leak</li> <li>Staining and Litter of Waste Storage Area</li> <li>Effluent Storage leakage</li> <li>Pipework and Bund Failure</li> <li>Spillage of waste during transport/removal</li> </ul>	<ul> <li>Refrigerant &amp; LPG Leak</li> <li>Effluent Storage</li> <li>Waste Storage</li> </ul>	• Contamination of Surface Water

The facility has a number of procedures in place to:

- mitigate against fugitive emissions, and
- deal with any emissions (leaks and spillages).

The relevant procedures form part of the sites EMS and are referenced in the Site Condition Report. These are summarised in Table 1.2 and include contractors' requirements whilst on site.

The following sections provide more details of these potential fugitive emissions, and the findings suggest that the likelihood of fugitive emissions is not significant.

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REF	Procedure	Purpose	Scope
OP01	Operational control	To establish a system for ensuring that day-to-day activities are undertaken in accordance with the Foyle Food Groups environmental policy and procedures. To ensure environmental procedures consider environmental objectives, significant environmental aspects and compliance obligations.	Foyle Food has identified and planned the relevant operations and maintenance activities which are related to environmental aspects and that are consistent with its environmental policy, objectives, targets, action plans and compliance obligations.
OP04	Disposal of waste	To establish a procedure for the handling and disposal of solid and liquid waste generated at the site.	To establish the methods for handling and disposal of waste generated from activities undertaken in the departments described above to ensure that they are disposed of in an authorised manner
OP05	Surface water protection	The purpose of this procedure is to identify methods of minimising unregulated discharges to surface water drains.	This procedure is designed to cover all areas of the site.
OP06	Contractor maintenance	The purpose of this procedure is to ensure correct maintenance of boilers, refrigeration system, the compressor and the drains.	This procedure is designed to cover contract maintenance of boilers, refrigeration system, the compressor, gas, water tanks, effluent treatment plant and the drains.
OP07	Control of Contractors	To establish a procedure for the control and management of external contractors while on site.	To assess and control contractor's activities to ensure they cause minimum environmental impact and insure compliance environ' policy
OP08	The receipt of bulk chemicals	To establish a procedure for the receipt and storage of bulk diesel and containerised oils and chemicals.	The receipt and storage of bulk diesel and containerised oils and chemicals to reduce the risk of potential spillage.
OP09	Bund inspection	To inspect, clean out and maintain bunded areas on site to ensure their integrity, and to dispose of any clean oil or contaminated water, which collects within them in an authorised manner.	All chemical liquid bunds on-site.
OP11	Spillage Response	To explain the method involved in responding to a spillage.	This procedure outlines the steps in handling a spillage and the follow-up actions (i.e. disposal of absorbent materials).

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### 1.2 Fugitive Emissions to Land

There are five key areas where there is potential for fugitive emissions to land:

- Chemical Spillage/Leak
- Staining and litter from the Waste Storage Area
- Effluent Storage Leakage
- Pipework and Bund Failure
- Spillage of waste during transport/removal

Excluding areas occupied by buildings, the site consists of either poured concrete, green areas or paving brick, while a large area to the rear of the site, which includes the staff carpark, is constructed of roller/compacted hardcore stone. For the purposes of the Site Condition Report, all hard-standing areas were observed to be in good condition with negligible signs of damage or cracking. The concrete areas will prevent the downward migration of any substance which may be spilled upon it.

#### 1.2.1 Chemical Handling

No materials are handled or stored outside areas of concrete hard-standing. All deliveries are supervised by suitably trained operatives. All liquid chemical delivery operations are supervised by the yard operators.

Acids are kept separate from chlorines and caustics at all times in storage areas. Where this is not possible, regular inspections are made to ensure that no spillages have occurred. Chemicals can only be moved / transported by a trained operative.

### 1.2.2 Spill Kits

Spill kits for *Aggressive Liquids* (chemicals, acids, alkalis and solvents) are strategically placed around the site and will be utilised in the event of a spillage onsite.

Spillage kits are checked on a weekly basis to ensure that they are correctly stocked. All relevant operatives have received spillage kit training, including practical demonstrations. Records of the training are kept on file at the site.

#### 1.2.3 Chemical Storage

All tanks and containers that contain materials with the potential to cause pollution are bunded in accordance with good practice and visual assessments are carried out as part of the site's Daily Environmental Checklist (ER04). In addition, there are procedures in place to assess the integrity of the bunds and for emptying of bunds, as per the Bunds Inspection Procedure (OP09).

The Chemical Store is a secure unit, with no internal drainage, located in the rear yard area. The store is used to store containers of cleaning chemical, which are all stored upon appropriately sized bunds. The potential for a pollution incident would be considered low.

See also Attachment C.3 – Bund Integrity Report.

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#### 1.2.4 Waste Handling Areas

General waste is stored within 1,100-litre wheelie bins in designated areas, before removal to the site general waste compactor. Secure containment of all wastes ensures that litter is not an issue on site.

There is a designated recycling waste handling area in the yard, which comprises of segregated sections for cardboard, plastics, metal skip and wood.

All animal by-product waste is stored internally within the CAT1 or CAT3 trailers, located in the by-product handling area, separate from the general waste and recycling waste areas. All drainage within this area is directed to the site Effluent Sump.

Secure containment of all wastes ensures that litter is not an issue on site.

Licenced contractors remove all by-product waste off site in covered trailers. Licenced contractors also remove effluent from the effluent sump & truck-wash sump and blood off-site in sealed tanks. Therefore, the risk of spillage to land is minimal.

See Attachment B.3.12 – Waste Management

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### 1.3 Fugitive Emissions to Air

There are three key areas where there is potential for fugitive emissions to air:

- Refrigerant & LPG Leak
- Effluent Storage
- Waste Storage

#### 1.3.1 Effluent Storage

Fugitive odours from effluent storage arise mainly from the volatilisation of odorous gases from anaerobic decay of organic debris upon quiescence surfaces, screens operation, build-up of organic debris within screens area and transport of raw effluent offsite.

There have been no odour issues to date at the site.

This is further addressed as part of attachment B.3.10.2 - Odour Management Plan.

#### 1.3.2 Waste Storage Areas

General waste is stored within 1,100-litre wheelie bins in designated areas, before removal to the site general waste compactor. Secure containment of all wastes ensures that litter is not an issue on site.

There is a designated recycling waste handling area in the yard, which comprises of segregated sections for cardboard, plastics, a metal skip and wood.

All animal by-product waste is stored internally within the CAT1 or CAT3 trailers, located in the by-product handling area, separate from the general waste and recycling waste areas. All drainage within this area is directed to the site Effluent Sump.

Secure containment of food minimises odour and is a requirement of the site's Odour Management Plan.

#### 1.3.3 Refrigerant & Gas

The site LPG tanks have a maximum potential capacity of 27,600-litres.

LPG is not toxic to flora, fauna or soil organisms. LPG gas leak effects will not cause long term adverse effects in the environment and is not dangerous to the ozone layer. LPG is not persistent, does not bio-accumulate and unlikely to cause long term adverse effects in the environment. Spillages are unlikely to penetrate the soil. The product is likely to volatise rapidly into the air.

The site also contains 424kg of R404A refrigerant within the main pack and 125kg of R448A refrigerant with the new chill.

There are a number of procedures in place to mitigate against fugitive emissions;

• External contact, SK Heating and Cooling, in place where all leaks in the systems are being identified and repaired.

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- There is a gas monitoring system on each of the packs to detect any leaks.
- The refrigeration is monitored on the Tek-troniks Refrigerant Gas Leak Detection System and alarms for any faults, while also sends email alerts to relevant personnel.

### 1.4 Fugitive Emissions to Surface Water

Bulk chemicals and fuels are stored either in bunded areas or on spill pallets throughout the site.

All chemicals used in smaller quantities throughout the plant are stored in smaller bunded areas or on self-bunded pallets.

The following mitigation procedures are in place:

- Surface Water Protection Procedure (OP05)
- Bunds Inspection Procedure (OP09)
- Receipt of Bulk Liquids Procedure (OP08)
- Spillage Response Procedure (OP11)

Approximately 21% of the sites surface-water, from the clean yard and main facility roof, discharges to the Kingston Brook via SW-1.

Average annual rainfall for the Cinderford area is 0.721m per year. The catchment area for this collection system was determined to be approximately 5,036 M<sup>2</sup>. Therefore, it is calculated that the site produces on average 3,631m<sup>3</sup> of surface-water annually.

All dirty site operations (i.e. animal by-product handling) and chemical storage are contained within the dirty yard area constructed of poured concrete.

Any spillage that could arise would be contained within the hardstand area and would be directed back into the effluent sump by the drainage network.

Sump is located in an area of low elevation. Any overflow would be contained upon a concrete surface.

See Attachment B.3.3 – Emissions to Surface Water. See Attachment C.5 – Bund Integrity Assessment

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### 2.0 Accidental Emissions Control

As per the EA guidance document The Food and Drink Sector (EPR 6.10) – Section 1.1 Accident Management, one should where appropriate:

- 1. Use automatic process controls backed-up by manual supervision, both to minimise the frequency of emergency situations and to maintain control during emergency situations. Instrumentation will include, where appropriate, microprocessor control, trips and process interlocks, coupled with independent level, temperature, flow and pressure metering and high or low alarms.
- 2. Use techniques and procedures to prevent overfilling of tanks liquid or powder- (eg. level measurement displayed locally and at the central control point, independent high-level alarms, high-level cut-off, and batch metering).
- 3. Use measures to detect variation in effluent composition eg in-line TOC measurement
- 4. Ensure that gross fat, oil and grease (FOG) does not block drains.
- 5. Identify the major risks associated with the effluent treatment plant (ETP) and have procedures in place to minimise them.
- 6. Provide adequate effluent buffer storage so that you can stop spills reaching the ETP or controlled water, especially those spills with high organic strength.
- 7. Protect against spillages and leaks of refrigerants, especially ammonia.

Accidental emissions can occur due to minor accidents in handling of materials or, as a consequence of a major incident.

The site applies a philosophy of prevention, which is based on a three element approach involving:

- Risk Assessment
- Procedural Control
- Training

Procedural control is an ongoing component of the approach as modifications and revisions are made to existing procedures, and new ones prepared, based on live experience at the site and industry best practice. This procedural control covers routine control over environmental issues, calibration, maintenance and testing procedures, which are in place to minimize the potential for loss of control.

The principles of risk assessment are applied to identify and evaluate those areas where there is a risk of environmental incidents and decide on the control measure to be implemented.

All relevant staff receives environmental training appropriate to their duties of work.

Details of the site's emergency procedure is outlined as part of its obligations under ISO14001 (EMS EM16 - Emergency Response). The site also has an Emergency Response Plan – see Attachment C.5.

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#### 2.1 Emergency Response

These are situations that have been considered and will be expanded upon in subsequent developments of this plan, in conjunction with the Business Continuity plan, or IT security plan.

The BCP a site-specific plan and is a confidential document.

In the event of an emergency, the site Business Continuity Plan, which is still being developed, would be adhered to.

General	Site Specific
• Electricity Failure	Natural Disaster
• Contaminated Water Supply	Major Accident
Product Recall	Major Spillage
Malicious Tampering/Extortion	Illness – Normal Workforce Not Available
Bomb Alert	Transport Issue – Normal Workforce     Not Available
Key Supplier Failure	Loss of Computer Systems

This has been identified as part of the H1 Risk Assessment - see attachment B.2.5.

The objective of the site's Business Continuity Plan (BCP) is to plan, as part of its duty of care to employees and customers the need to cater, as far as is reasonably practicable, for all eventualities that may adversely affect the operation of the business.

As part of that duty, the BCP is in place to assist in the speedy and efficient return to normal business activities should a major incident occur which directly impinges on business activities.

The approach in this document is to assist management and the BCP team members in returning the business to its position in the marketplace before the disaster.

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The following is the table of contents so far for the sites BCP:

#### 1.0 Purpose

- 1.1 Scope
- 1.2 Plan Objectives
- 1.3 Assumptions
- 1.4 Disaster Definition
- 1.5 Recovery teams
- 1.6 Team member responsibilities
- 1.7 Instructions for using the plan
  - 1.7.1 Invoking the Plan
  - 1.7.2 Disaster Declaration
  - 1.7.3 Notification
  - 1.7.4 External communications
  - 1.7.5 Emergency management standards
  - 1.7.6 Emergency management procedures
  - 1.7.7 In the event of a natural disaster
  - 1.7.8 In the event of a fire
  - 1.7.9 In the event of a network services provider outage
  - 1.7.10 In the event of a flood or water damage
- 1.8 Plan review and maintenance

### 2.0 Alert/Verification/ Declaration phase

- 2.1 Plan checklists
- 2.3 Flow diagrams
- 2.4 Notification of incident affecting the site
- 2.5 Provide status to EMT
- 2.6 Decide course of action
- 2.7 Inform team members of decision
- 2.8 EMT notifies account teams/customers
- 2.9 Contact Haulers' and Farmers (see Appendix I)

### 3.0 Disaster Declared: mobilize incident response team/Report to command center

- 3.1 Conduct detailed damage assessment (This may also be performed prior to declaring a disaster)
- 3.2 Contact EMT/decide whether to continue to business recovery phase

### 4.0 Business recovery phase (full recovery)

- 4.1 System and facility operation requirements
- 4.2 Notify technical engineering staff/coordinate relocation to new facility
- 4.3 Secure funding for relocation
- 4.4 Notify EMT and corporate business units of recovery Startup
- 4.5 Operations recovered

### 5.0 Appendixes

#### 5.1 Appendix A: Foyle Gloucester recovery teams

- 5.1.1 Emergency management team (EMT)
- 5.1.2 Location Response Coordinator (LRC)
- 5.1.3 Location Response Team (LRT)

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- 5.1.4 Incident Response Team (IRT)
- 5.1.5 I.T. Technical Support (TS)

5.2 Appendix B: Recovery team contact lists

- 5.2.1 Emergency management team (EMT)
- 5.2.2 Location Response Coordinator (LRC)
- 5.2.3 Location Response Team (LRT)
- 5.2.4 Incident Response Team (IRT)
- 5.2.5 I.T. Technical Support (TS)
- 5.3 Appendix C: Emergency numbers
  - 5.3.1 First Responders, Public Utility Companies, Others
- 5.4 Appendix D: Contact list
- 5.5 Appendix E: Emergency Command Center (ECC) Locations 5.5.1 Emergency Command Centre
- 5.6 Appendix F: Minimum acceptable recovery configuration
- 5.7 Appendix G: Forms
  - 5.7.1 Incident/Disaster form
  - 5.7.2 Critical equipment status form
- 5.8 Appendix H: Building Evacuation Information
- 5.9 Appendix I: Inventory of Primary Equipment and Systems
- 5.10 Appendix J: Inventory of Backup Equipment and Systems

#### 5.11 Appendix K: Approved Vendor List

- 5.11.1 Server and Computer Equipment Suppliers
- 5.11.2 Civil/Structural Engineering Companies
- 5.11.3 Electrical Contractors
- 5.11.4 Excavating Contractors
- 5.11.5 Emergency Generators
- 5.11.6 Mechanical Engineering (HVAC, Facilities, etc.)
- 5.11.7 Plumbing
- 5.11.8 Site Security Services
- 5.11.9 Additional Suppliers / Contractors

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#### 2.2 Operational Risk Assessment

The site's emergency response procedures are based on a risk assessment of all aspects of the plant's operations, as part of a hazard identification and evaluation process.

This risk assessment is laid out in the Register of Aspects prepared for the ISO 14001 standard.

Arising from this risk assessment, Foyle – Melton Mowbray implements a range of measures to prevent and protect against accidental emissions and discharges as follows:

- Permit to work procedures and controls
- Fire detection system
- Use of bunded areas for storage and containment
- Spill response and containment measures
- Emergency equipment resources
- Thorough accident / incident investigation procedures
- Guidelines and procedures for dealing with accidental emissions
- Training e.g. spill response

#### **2.3 Bunding and Containment**

All hazardous chemicals and fuels used on-site, including, cleaning chemicals and forklift diesel, are bunded directly or are stored within proprietary bunded structures.

Bund integrity is crucial to ensuring accidental emission incidents are avoided. Bunds are regularly inspected for their integrity as per guidance documents. Accumulated rainwater is treated as hazardous and is pumped to the site's effluent sump.

See EMS OP09 - Bunds Inspection Procedure.

See Attachment C.3 - Bunding Integrity Assessment, carried out in support of this application.

See Attachment B.2.3.C for the site's chemical inventory.