



PB Gelatins UK Ltd

Odour Management Plan

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Date	Issue	Amendments
08/06/2015	2	Section 2.4 <i>PBG Inventory of Odour Sources</i> , Table 2.2 amended to include DAF plant rotary screen as a potential source of odour Section 4.4 <i>Building Containment</i> amended to include the fitting of door closers to pedestrian doors in A18

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1 Introduction

1.1 Introduction & Background

PB Gelatins UK Ltd (PBG) is a manufacturing facility based in Treforest Industrial Estate, in Rhondda Cynon Taff. PBG manufacture Gelatin products by extraction from Ossein using a series of process steps:

1. Ossein Liming process which removes cross links
2. Neutralisation process Ossein Washing & pH Correction
3. Ossein Dewatering
4. Gelatin Extraction
5. Storage and Packaging

Further description of the process can be found later in the plan.

Operations at the site can involve the movement and handling of odorous materials; hence there may be the potential for odorous emissions to occur from fugitive and controlled sources during normal operations and during maintenance or abnormal events. The majority of the site is enclosed to prevent the release of such odours in a manner that is likely to cause an impact on the environment, however there are certain activities and location on the site that are more likely to cause odours.

This OMP has been prepared to ensure that:

1. PB Gelatins comply with the requirements of the Environmental Permitting Regulations 2010 Permit section 3.4 which states: 'Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of Natural Resources Wales, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour'.
2. To discharge the requirements of improvement condition contained within the Environmental Permitting Regulations 2010 Permit improvement condition 2 identified in schedule 1 which states: 'The Operator shall submit a detailed written Odour Management Plan (OMP) to Natural Resources Wales for agreement. The plan has been developed in line with the requirements of the Environment Agency's H4 guidance document'.

1.2 Scope

The Scope of the OMP is The PB Gelatins site Operations in Treforest Industrial Estate. This OMP has been prepared to be in accordance with the requirements of Environment Agency Horizontal Technical Guidance Note H4 – Odour Management. The H4 guidance issued in March 2011 is the document which has been referred to in the development of this OMP. This OMP has considered sources, releases and impacts, and used these to identify cost-effective opportunities for odour management.

1.3 Objectives

The objectives of this OMP is to ensure PBG:

- Employ appropriate methods, including monitoring and contingencies, to control and minimise odour pollution.
- Prevent unacceptable odour pollution at all times.

- Reduce the risk of odour releasing incidents or accidents by anticipating them and planning accordingly.

This OMPs has been prepared after consideration and assessment of the sources, releases and impacts of odour, this assessment has been used to identify cost-effective opportunities for odour management.

2 Description of Site & Process

2.1 Site Overview

The site manufactures high purity Gelatin for use within various industries, including photographic and pharmaceutical applications. As mentioned in Section 1.1, the site is arranged as a number of relatively discrete land parcels and buildings; these are shown on the site layout drawing appendix 1 for further ease of reference, throughout this report the site will also be zoned and discussed according to these land parcels.

2.2 Description of Operations

The main bulk raw material input to the facility consists of small chippings/shavings of animal bones known as Ossein. These are delivered to Zone A18 area of site, where they are subjected to various chemical processing techniques in the 'Old Farm' and 'New Farm' buildings, mainly including the addition of lime and other caustic and acidic solutions, before being transported by truck to the A21 'Production and Blender Building' area of site. Further physical and chemical processes are undertaken in the A21 building complex in Zone A21, again including the utilisation of caustics and acids as the Gelatin production is completed.

River abstraction water is used in the production process and the preparation of this process water is undertaken in the 'Waterworks' Zone, including the addition of water treatment chemicals, before this 'clean' process water is piped to the various areas of site for usage.

In Zone A6 the single building is used as an office block, with offices and a materials/quality testing laboratory on the ground floor and office space on the first floor, whilst the warehouse in Zone A13 is used as a solid materials (finished Gelatin) storage facility.

The various process areas of site are linked by below ground drainage pipes, all of which channel effluent via the 'Effluent Plant'. This is effectively a below and above ground concrete sump which gathers the various effluent process waters and pumps them to the 'Balance Tank' which is situated in the A18 area of site.

General filtering is completed in the balance tank, which discharges to the 'DAF' plant in the Old Farm building for treatment. In general the dirty process waters are understood to consist of relatively neutral to slightly alkaline pH, but which exert high biological / chemical oxygen demand (BOD/COD). Following treatment, organic rich waters are pumped to the 'Sludge Tank' which is situated also in the A18 area of site. On a regular basis typically eight or nine times a week the sludge tank is emptied by a tanker and taken for land spreading.

2.3 Surrounding Area and Odour Sensitive Receptors

2.3.1 Site Location & Setting

The site (The Installation) is located at the northern end of the Treforest Industrial Estate at a National Grid Reference of approximately 310260,186870.

The site consists of a number of relatively discrete parcels of land within an industrial estate, occupying a total land area of approximately 3.83 hectares. The boundaries of the site as a whole are generally defined by Gwaelod-y-Garth Road to the east, Tonteg Road to the north, Severn Road to the north and the Taff Vale railway to the south.

2.3.2 Odour Sensitive Receptors

The site is located within Treforest Industrial Estate and hence in an extensive area of generally light industrial and commercial developments. The nearest residential property is located 90m from the site boundary

To the North and North West are electricity sub-stations and switching stations;
To the North East are a number of car showrooms, with the River Taff further beyond;
To the east are a number of light industrial and commercial units; and
To the south and west is the Taff Vale railway line with a non-developed hillside beyond.

Table 2.1 Odour Receptors

Receptor	Property Type	Property name	Address	Distance from Odour Source
R1	Residential	Bridge House	Williams Close, Upper Boat, Pontypridd, CF37 5BH	Approx. 90m
R2	Residential	Pound Farm	Pound Farm Lane, Tonteg, Pontypridd CF38 1SU	Approx. 552m
R3	Commercial	Keyline Builders Merchants	Taffsmead Road, Treforest, Cardiff CF37 5TF	Approx. 20 m
R4	Commercial	The Welsh Shop	Unit B1, Taffsmead Road, Pontypridd, Mid Glamorgan CF37 5TF	Approx. 35 m
R5	Commercial	Greggs Shop	Taffs Fall Rd Pontypridd, Mid Glamorgan CF37 5TF	Approx. 45 m
R6	Commercial	City Plumbing	Taffs Fall Rd, Pontypridd, Pontypridd, Mid Glamorgan CF37 5YQ	Approx. 55 m
R7	Commercial	Griffin Mill	Tonteg Rd Pontypridd, Mid Glamorgan CF37 5TF	Approx. 10 m
R8	Commercial	Petwise	Severn Rd Pontypridd, Mid Glamorgan CF37 5TF	Approx. 100 m
R9	Commercial	Café	Severn Rd Pontypridd, Mid Glamorgan CF37 5TF	Approx. 100 m

Sniff tests have been conducted at both R1 & R2 and based on the concentration it is unlikely there is any potential for odour to reach these locations.

Complaints have however been received from commercial businesses in the region immediately east of the site and in the closest proximity to the sludge tank & tankering operation.

2.4 PBG Inventory of Odour Sources

There is the potential for odour emissions to arise from the sections of the installation described in Section 2.2, the main and only real source of odour to affect the receptors identified is from the sludge tank and skips holding bone waste.

The application of best practice management measures would, however, be capable of eliminating and minimising emissions to an acceptable level. Table 2.2, below, provides a summary of the main sources of odour within the facility.

It is important to note that although there are many potential sources of odour from the different operations and stages of the liming and washing processes, the sources of odour identified during the main effluent & processing stages are contained within the main facility buildings.

The building air is extracted continuously, and in the case of the DAF facility is fed to the Peacemaker prior to release to atmosphere.

This leaves the following releases of odour from the onsite processes themselves:

- residual releases discharged from the peacemaker unit;
- fugitive odours escaping from the points of entry and exit of the Old Farm building;
- fugitive odours from the sludge tank
- fugitive odours from the bone skip.
- minor releases from site drainage.
-

Table 2.2

Source	Location	Activity	Type of emission	Odorous compounds	Means of control	Release to Atmosphere	
						description	characteristics
Bone Skip	Old Farm	Bone waste collection and storage.	Fugitive	H2S, Mercaptans	Inspection, covered skip, Closed drains, Regular cleaning, Regular skip removal. Wash down of area after skip change	Fugitive emissions – general release	Continual release, at ground level. Low level odour at source.
Rotary Screen	Outside Old Farm		Fugitive	H2S, Mercaptans	Inspection and regular cleaning	Fugitive emissions – general release	Continual release, at high level. Medium level odour at source when control measures not implemented. Low level once all control measures are implemented
Sludge tanks	Outside Old Farm	Collection of sludge from DAF process	Fugitive	H2S, Mercaptans	Peacemaker Water scrubber Diox solution (Sodium Chlorite)	Fugitive emissions – general release	Continual release, at ground level. Medium level odour at source when control measures not implemented. Low level once all control measures are implemented.
		Tanker sludge collection	Fugitive	H2S, Mercaptans Dimethyl disulphide	Peacemaker Water scrubber Diox solution (Sodium Chlorite)	Fugitive emissions – general release	Continual release, at ground level. High level odour at source when control measures not implemented.

					Wash down of area after tanker collects sludge		Low level once all control measures are implemented.
	New Farm				Roller shutter doors and pedestrian doors to be shut at all times when not in use. All pedestrian doors fitted with door closers	Fugitive emissions – general release	
	Old Farm				Roller shutter doors and pedestrian doors to be shut at all times when not in use. All pedestrian doors fitted with door closers	Fugitive emissions – general release	

Appendix 1 shows the location of the PB Gelatins odour sources in relation to the receptors

Potential Odour Sources (External)	Property name	Address	Process
S1	Greggs Shop	Taffs Fall Rd, Pontypridd, CF37 5TF	Bakery
S2	Egan Waste	Unit 15A Severn Rd	Waste recycling
S3	Apparelmaster	See map	Industrial laundry

Locations of potential external odour sources (see Appendix 2 for details)

3 Odour Control during Normal Operation

The application of good working practices and process control is of fundamental importance in eliminating and minimising the quantities of odours formed on site and their subsequent release to atmosphere. This approach is preferred as it is much more difficult to reduce odour impact through improving atmospheric dispersion. Control measures for the PBG sludge processes are detailed in section 3.1 and section 3.2 below. The overall aim in the operation of the PBG processing facility is to apply Best Available Techniques (BAT) at all stages of the production processes undertaken on site. For this reason, the installation would be operated and managed in accordance with the accepted hierarchy of preferred controls, that is:

1. prevent the formation or emission of odorous compounds in the first place;
2. where this is not practicable, minimise the release of odour;
3. abate excessive emissions; then
4. dilute any residual odour by effective dispersion in the atmosphere.

3.1 DAF Plant, Sludge Storage and Removal

A number of control techniques have been included within the design of the production process, DAF plant and collection systems in order to ensure the most effective implementation of BAT for this type of process.

The measures to be employed include:

- the housing of the complete process (reception, treatment and storage) in an enclosed building, pipework or tank collection system.
- roller doors are kept closed to minimise the amount of time that doors remain open during process operations;
- within each section is managed effectively with regard to the emission load in that area;
- process conditions include the addition of sodium Hypochlorite to control bacterial build up
- process odours are continually monitored and process adjustments made to prevent odorous build up;

3.1.1 DAF Sludge Transfer

Sludge is transferred from the DAF plant to the sludge tank in an enclosed pipe work system that ensures no odour can be released to the atmosphere.

Systems of monitoring are in place to ensure pumps, pipe work, connections, and valves are all in good working order.

3.1.2 Sludge Holding Tank

The sludge holding tank is a fully contained tank which has been specifically designed to ensure leakage is very unlikely.

During routine operation, the extraction fan on the peacemaker unit draws the air containing emission gasses from the DAF sludge tank through the odour control system reducing any potential odours; fresh air is allowed through the passive carbon filter into the sludge tank to eliminate the vacuum.

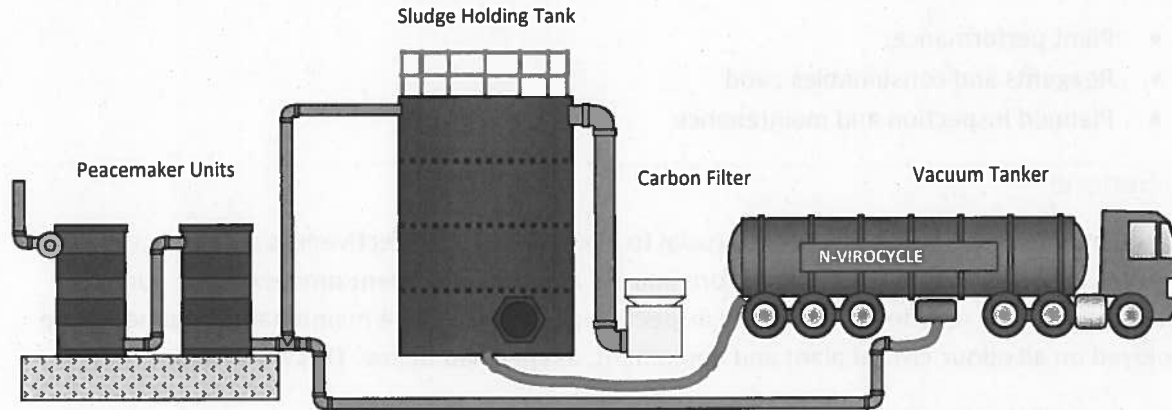
3.1.3 Odour control for tanker filling

During the tanker filling operation, the tanker driver connects the tanker to the sludge tank via a secured hose, the driver also attaches the exhaust from the tanker to the ductwork feeding the odour control units.

Once the vacuum is achieved in the tanker, the sludge is drawn from the sludge tank into the tanker, as the level reduces in the sludge tank, air is drawn in through the passive carbon filter to eliminate the vacuum within the sludge tank. The air within the tanker is expelled through the vacuum pump into the ductwork and through the odour control system reducing the odours.

The odour control system is designed as two Air-Water Treatments Peacemaker Dry Scrubber Systems, these systems have been installed to reduce the odorous emissions whilst pumping the sludge from the sludge tank to the tanker. The Peacemaker systems contain Triox Odour Control Media, this is a mixture of preparation of proprietary oxidising and adsorption ingredients including

Chlorine Dioxide stabilised in inert media, this material is designed to remove Hydrogen Sulphide from process gases.



The DAF sludge odour control system consist of four main components, these are:

1. **Passive Carbon Filter:** This is used as a non-return valve (NRV) to allow air into the sludge vessel preventing a vacuum being produced which could potentially crush the storage vessel.
2. **Peacemaker Units:** The AWT peace maker units are a dry scrubbing system constructed of black polypropylene vessels which contain Triox media and extruded coal based activated carbon which are designed to remove the H_2S , Mercaptans and Amine gases.
3. **Duct Systems:** The PVC pipe work ducting, is used to connect the various items of the odour control system.
4. **Extraction fan:** The system includes a centrifugal extraction fan which is fitted to the last peacemaker unit, which ensures that the system is under a vacuum.

3.2 Bone Removal & Storage

Solid bone waste is generated as part of the process, this material is removed from the process and transferred to a covered skip outside the Old Farm building.

All transfer sections are fully covered to [prevent odours from being released and containment in this area is well established.

Skips are removed from site on a twice weekly basis to avoid the build-up of noxious odours. The area where the skip is placed is protected by a drainage system so that any leachate water from the skip can be contained. The impermeable floor surface is washed down daily into enclosed drains which prevent further odour from being generated.

It is not considered necessary at this stage to add any further control measures as these actions seem to prevent any high level odours from being generated.

4 Routine Maintenance and Inspection

This section of the OMP describes how PBG will address the following issues to help maintain the effectiveness of odour controls:

- Plant performance;
- Reagents and consumables ; and
- Planned inspection and maintenance

4.1 General

Planned maintenance and inspection is crucial to maintaining the effectiveness of odour control measures. PBG will ensure the good performance of all plant, treatment processes and odour control equipment. An effective, planned inspection and preventative maintenance regime will be employed on all odour-critical plant and equipment, as specified below. This will include:

- a written maintenance programme; and
- a record of maintenance.

A list of spares required and the procedure for re-ordering will be developed as part of PBG's

Management System and will be based on the manufacturers' recommendations of spares required together with standby equipment for some critical items (e.g. fans, pumps). The sections below detail how often different pieces of plant are expected to be maintained.

4.2 Odour Abatement System

The system's effectiveness depends on the filter substrate being actively managed. A maintenance and inspection programme has been developed during, which will form part of the Maintenance Plan for the facility.

The maintenance Programme for the Peacemaker units can be found in the Manufacturers O&M Manual and the PBG Planned Preventive Maintenance schedules.

4.3 Detailed Maintenance Plans, Schedules and Checklists

A detailed inspection and maintenance regime, including the required frequency of operations, forms part of the maintenance plan for the facility. This has been developed based on manufacturer's guidelines.

Adequate supplies of spares, reagents and consumables will be kept on site. Records will be kept of the delivery and usage of all such items, and these records will be used to minimise the risk of running out. Schedules will be prepared for the planned replacement of longer lasting reagents such as filter media, together with any monitoring which has a bearing on the suitability of these plans.

4.4 Building Containment

In order to achieve overall odour containment and thus to minimise unplanned releases of odour to atmosphere, it is essential that the integrity of the fabric of main process buildings are maintained continuously, other than during periods of essential maintenance. Roller shutter doors and pedestrian doors will be shut at all times when not in use. The effective operation of roller and other doors will be checked routinely. Pedestrian doors will be fitted with door closers.

4.5 Maintenance of Plant and Equipment

A routine maintenance plan and inspection schedule for the following equipment will be developed by the Operator during the commissioning phase. Once this has been completed, it will form part of the maintenance plan for the facility:

- Sludge pumps and pipework
- Sludge tank and connection
- Fans
- DAF Plant
- Passive Carbon Filter
- Peacemaker Units
- Duct Systems Extraction fan
- Effluent plant
- Site pipework

5 Routine Monitoring, Recording and Reporting

This section of the OMP sets out the monitoring procedures that will be implemented, during normal operations, to assess the effectiveness of operational practices to prevent and contain odours, and to assess the nature and extent of an odour problem should it arise. The procedures are based on the measures set out within Section 5 of the EA's H4 guidance.

5.1 Overview of Monitoring Plan

PB Gelatins will monitor odour emissions from the facility in order to ensure releases do not result in odour nuisance at sensitive receptors. In the widest sense this monitoring includes both emissions monitoring of odour and inspections of the process, buildings and equipment to check that emissions are being contained and controlled to meet the accepted standards of good practice in relevant guidance.

In order to evaluate the performance of control techniques and abatement processes in use at the plant, monitoring odour will take place using the following methods:

- a) local receptors will receive a copy of the NRW odour diary (see appendix 2)
- b) a daily programme of field measurements, using 'sniff' testing', to a procedure based on that outlined within the H4 guidance;
 - daily monitoring of weather forecasts and retention of on site meteorological data downloaded from weather station located at the A18 building;
 - monitoring of complaints and other forms of community feedback;
 - continuous monitoring of odour abatement equipment by appropriate surrogate parameters (e.g. measurement of pressure drop) to give an indication of performance; and
 - measurements of odour strength in residual releases from the filtration system serving the sludge transfer process;
 - general monitoring of site drains and sumps related to general processes.

The following parts of this section give further detail on how this monitoring would be carried out.

5.2 Monitoring Methodology

5.2.1 Sniff Testing

Monitoring of odour exposure by sensory field odour assessment ("sniff testing") will be undertaken by a trained operative to record the attributes of the odour. The assessment is "sensory" in that the human nose is used as the detector – a sound approach considering that no analytical instrument can give a unified measure of a complex mixture of compounds in the same way that a human experiences odour.

Sniff testing will be employed for the following reasons:

as part of a daily walkover survey at the PBG site boundary during normal operations, to confirm the effective performance of odour control measures in place. To provide objectivity, the daily sniff test will be supplemented by a weekly test carried out by a member of staff who is not normally exposed to every day plant operations

- at the PBG site boundary during periods of adverse meteorological conditions, breakdowns or during other abnormal events to evaluate the effectiveness of the control measures in place and the likelihood that odour complaints will be received; and
- In the event that complaints are received, at the locations of sensitive receptors as part of the complaint investigation procedure outlined in Section 7.3.

The sensory field odour ("sniff test") assessments will be conducted as identified in the PBG Management System work instruction which is based on the Environment Agency Sniff Test protocol within the H4 Odour guidance. A summary of the extent and scope of the daily odour survey is presented in Table 5.1.

Table 5.1: Summary of Field Odour Monitoring at the Site Boundary

Parameter	Value
Frequency of measurement	Daily (during normal operations) Reactive (in response to abnormal events or complaints)
Determinands	Odour intensity (Detectability) Receptor sensitivity
Sampling Location & Durations	Walkover survey of the PBG New Farm site boundary (during normal operations) At the originating address in the event of a complaint investigation
Sampling method	PBG SOP for sniff testing
Limit Value	All odour detection to be reported to supervisors immediately

Details of how the results will be recorded and submitted are given in Section 5.2.6. Sniff testing is designed to detect abnormal situations or plant emissions. In the event that abnormal odour is detected, the source of the odour would be investigated (using the procedure set out in Section 7) and remedial action taken, as necessary, as described in Section 5.2.6.

5.2.2 Monitoring of On-site Meteorological Data

The monitoring of real-time meteorological data is an effective tool in the management of odorous emissions from the facility. Certain meteorological conditions, such as cold conditions combined with low wind speeds, can result in poor dispersion of fugitive waste odours. This can potentially lead to an increased risk of odour annoyance at sensitive receptors.

The use of meteorological data will be applied at the PBG Installation to predict when periods when conditions for the dispersion of odour are likely to be poor, enabling additional monitoring to be scheduled and planned maintenance operations to be re-scheduled to avoid such times;

5.2.3 Complaints Monitoring

Complaint data is recognised by the Natural Resources Wales as the single most important tool for assessing the overall level of odour impacts experienced by members of the public at locations outside the site boundary. It is therefore vital to record and act upon complaints received, and communicate the outcome of investigations to complainants.

PBG have implemented a system of complaints monitoring and analysis. Complaints are collected, registered and validated as described in Section 7.3 of this OMP. PBG will summarise any validated complaints on a regular basis.

5.2.4 Odour Diaries and Community Surveys

PBG recognises that there is the potential for circumstances to arise where odour complaints from community members contradict the results of the daily sniff testing monitoring programme, due to the 'adaptation' of site based staff to odours released from the PBG sludge operations. Where it is found that this occurs over an extended period of time, consideration would be given to engaging members of the public in key locations to undertake a period of community monitoring in order to evaluate and optimise the performance of the routine sniff testing programme.

The community monitoring programme would take the form of participation in off-site walkover surveys and the keeping of odour diaries, using the standard form in Appendix 1 of the H4 Guidance Note.

5.2.5 Monitoring of Control Effectiveness

The peacemaker parameters are monitored: continuous measurements are made of inlet air, filter temperature and pressure, to check the Peacemaker is performing within specification.

Details of how the results will be recorded and submitted, and action plans for investigation, remedial measures and procedural changes in the event of detected abnormal emissions, are presented in Section 5.3.

5.2.6 Monitoring Records

All monitoring undertaken will be recorded, PBG records will include enough information about the emissions measurement used to use that data in our analysis of the condition of the control measures and abatement systems implemented.

Records will be kept using the 'Sniff Testing Odour Report form' & 'Odour Complaint Report form' and where an odour is detected but no complaint received and Odour Diary can also be consulted.

6 Odour Control during Maintenance and Abnormal Events

This section of the OMP deals with the management and control of odours during maintenance and emergency situations. It sets out the ways in which PBG will operate an action plan for abnormal event scenarios (including emergencies, maintenance, breakdowns, weather anomalies, etc). This is a summary of the foreseeable situations that may compromise the PBG's ability to prevent and/or minimise odorous releases from the process and the actions to be taken to minimise the impact.

The action plan is intended to be used by operational staff on a day-to-day basis.

A tabular risk assessment approach has been employed in the evaluation of odour control techniques during maintenance and abnormal events. The tables:

- identify the location and conditions under which abnormal operational conditions or failures might arise;
- summarise the potential impact or consequences of the identified abnormal / failure situation and assesses the degree of those impacts; and
- describe how the conditions could be prevented and/or mitigated and controlled. The majority of abnormal situations can be controlled in some way by effective management.

Solutions to mechanical problems will necessitate the replacement or repair of component parts. With regards to essential items of equipment a list of spares required and the procedure for reordering will be developed as part of the Maintenance Plan and will be based on the manufacturers' recommendations of spares required together with standby equipment for some critical items (e.g. fans, pumps). Breakdowns should be minimised, as maintenance of odour critical plant will limit such occurrences. Furthermore, the system has been designed to enable operation of the odour control system even with minor failures in other parts of the system.

Where planned or emergency maintenance of plant items has to be carried out and there is a likelihood of odour being released to atmosphere in quantities sufficient to result in detection offsite, a detailed risk assessment of the activity will be conducted, where in issues of odour generation, release, and control and liaison and communication with local receptors will be considered. The detailed risk assessment methodology and accompanying forms for carrying out unplanned works are described in a separate documented Work Procedure kept on site within the PBG Management System, to which reference should be made.

Where planned or emergency maintenance of plant items has to be carried out and there is a potential for odour being released to atmosphere in quantities sufficient to result in detection offsite, a detailed risk assessment of the activity is conducted, as part of which issues of odour generation, release and control are considered.

Table 6.1 PBG Installation – Odour Control during Maintenance and Abnormal Events

Location of Emission	Circumstances through which abnormal event would arise	Consequences of abnormal event	Measures to be in place to prevent or reduce the possibility of the abnormal event arising	Actions to be taken, and individuals responsible
Sludge Tanker	Damage to hose sludge during tanker operation	Fugitive release of odour	Emergency Response plans	Competent Person to initiate accident response plan – delivery vehicle made safe. If drivable, remaining material discharged into reception hall or vehicle removed off site. Spilt materials to be collected by contract tanker. Notification to receptors
	Sludge tanker driver forgets to connect tanker exhaust to the Peacemaker	Increased emission levels during transfer of sludge	Training & Competence Supervision from PBG Supervisor Pre pump checklist to be completed.	Operative to Stop transfer of sludge, investigate and connect to Peacemaker before process commences. Notification to receptors
Peacemaker	Peacemaker failure / blockage	Increased emission levels during transfer of sludge	Regular maintenance and inspection to determine status of Peacemaker.	Operative to Stop transfer of sludge, investigate and repair Peacemaker. Notification to receptors
	Peacemaker odour reduction efficiency reduced	Increased emission of odours gasses	Regular maintenance and inspection to determine status of Peacemaker.	Operative to Stop transfer of sludge, investigate and repair Peacemaker. Notification to receptors
Personnel access doors on the outside fabric of the building	Doors/openings accidentally or deliberately left open	Potential for fugitive odorous emissions from open doors (particularly DAF Plant) – may cause odour to be detected at nearby sensitive receptors.	A closed door policy to ensure building containment is not compromised. Self-closing mechanism to be fitted to all personnel access doors.	Clear and conspicuous signs will be pinned on all outside doors (inside and out). After entering or exiting the building, it will be the responsibility of all staff/visitors to ensure doors are closed behind themselves (inc. openings). Notification to receptors
Effluent Balance Tank	Failure of pumping systems	Increased emission of odours gasses	Regular maintenance and inspection to determine status of Peacemaker	Engineer to Stop effluent process and repair equipment. Notification to receptors

7 Document Updates and Reviews / Management

This section of the OMP provides information on:

- staffing responsibilities;
- staff training;
- complaint management, investigation and resolution procedures;
- provision of a complaints telephone line; and
- communications with external stakeholders.

7.1 Roles and Responsibilities

PBG is committed to managing effectively the off-site impacts of odour from the PBG Installation.

This commitment extends from policies produced at director level, to the resources available to the competent personnel, to the abilities of the personnel managing odour-critical work tasks. This section describes the responsibility for the management and operation of the PBG Installation.

PBG conducts its operations under its Management System Manual, which has been developed to meet the requirements of BS EN ISO 14001:2004 & BS EN 9001:2008. The Management System Manual forms an integral part of the Management System, including Operating Standards and Company Procedures which are understood and effectively maintained at all levels within the company.

The company has appointed managers with the executive authority and responsibility for implementing the Management System. Work instructions, job descriptions and procedures exist for critical areas of the Company's activity and been issued to or made available to personnel responsible for undertaking these tasks. PBG has a well-defined and formally documented management structure for managing the impacts of odour from the PBG Installation. It is the responsibility of every manager, with the support of the environmental professionals, to identify environmental risks that are relevant to each site and determine if a particular activity or service is environmentally significant. Once identified, it is the responsibility of the manager to highlight the significant aspects to all relevant employees and contractors. The manager is also responsible for monitoring and managing all activities under the Company's control to improve environmental performance. Managers must complete the appropriate register to identify all activities or services that are relevant to site operations and an indication of potential impacts.

Further information on the role of staff members and responsibility for odour management is given below:

- The PBG Installation is the responsibility of the Operations Manager.
- The facility has a dedicated Operations Manager who has overall responsibility for the operation of the site.
- Routine preventative maintenance and reactive breakdown maintenance is the responsibility of the Engineering Manager and each of the facility supervisors.
- Each individual facility supervisor, who reports to the Operations Manager, is responsible for the site operatives who will work shifts to cover the operational hours of the site.
- During night hours and weekends a number of staff on-call are available.
- Operational staff members at the PBG Installation site are responsible for maintaining an awareness of general process performance during their day-to-day activities on the site.



- Staff are instructed to note and observe any unusual odour occurrences and to report these to the Facility Supervisor or Production Manager without delay.

7.2 Training and Competence

7.2.1 General Procedures for Training and Competency of Staff

Training and competency of staff is controlled by the PBG Management System. The Management System Manual covers training, awareness and competence. The company identifies training requirements of its employees and provides suitable resources to ensure they have the required knowledge, skills and expertise to carry out their duties. This includes their roles and responsibilities in complying with the policy statements, the Management System and all relevant legislation. This is achieved through induction training for new employees, awareness training for all and specific training as required. Contractors and all persons performing tasks on behalf of the Company will be made aware of the policy and relevant Management System requirements and will be competent in the roles undertaken.

Staff competency and the need for training is continually assessed by site management and supervisors and under all circumstances will be reviewed annually and formally recorded within the Management System.

7.2.2 Training and Competency of Operational Staff at the PBG Installation

All staff at PBG Installation are made fully aware of the need to be constantly vigilant with regard to site odour control and management procedures. Staff responsible for the operation, maintenance or repair of odour-critical plant will be provided with a copy of the OMP and trained and competent to carry out their tasks. Records will be maintained (documented training records) demonstrating compliance with this. In order to minimise risk of emissions, particular emphasis will be given during training to:

- general awareness of responsibilities for avoiding odour nuisance;
- minimising emissions on start-up and shut-down;
- actions to minimise emissions during abnormal conditions

Management will maintain a statement of training requirements for each operational post and keep a record of the training received by each person whose actions may have an impact on the environment. The staff will receive regular refresher training under PBG Management System.

Specific training will be provided in relation to the operational systems for the DAF plant, the sludge transfer process and the bone skip are maintenance. SOPs have been developed to describe these processes and these have been utilised in the training of staff.

7.3 Complaints Handling and Communications

PBG has in place a comprehensive system of monitoring and inspection to check odour control measures are functioning effectively at the PBG Installation. However, in the event that an odour complaint is received, it is important that complaints are properly and systematically dealt with, and acted upon.

The management of complaints is controlled by the PBG Management System, which states that the Company will maintain a register of all complaints and in all cases managers shall ensure that all

complaints have been adequately handled and that any measures necessary to prevent a recurrence have been put in place.

Administrative arrangements have been put in place for the PBG Installation to efficiently record complaints, act on them where necessary, and to produce summary reports on the levels of complaints and what this means.

This section of the OMP describes:

- How PBG will respond to any odour complaint;
- How PBG will investigate any odour complaints, take the appropriate steps and actions, and keep stakeholders informed; and
- How PBG will communicate to appropriate bodies routinely and in response to any incidents or planned maintenance.

7.3.1 Complaints Management and Registration

The following procedure for dealing with odour complaints is based on guidance from H4 Odour guidance.

Publicising contact details for odour complaints

Members of the public are able to contact PBG with any odour complaints about the PBG Installation facility by the following means:

- By telephone – the contact number 01443 849300 will normally be manned from Monday to Friday between the hours of 08:30 and 16:30. Outside of these hours, and on infrequent occasions during the above hours when an immediate reply cannot be made, the PB Gelatins Shift Supervisor can be contacted on 07733365961 or by Email to alan.fitzpatrick@pbgelatins.co.uk.

These methods of contacting PB Gelatins will be displayed at the site.

Once a complaint has been received and the details collected, the complaint must be processed. This involves the actions described below.

Complaint registration

PB Gelatins will maintain a record of all complaints received. In the event that PBG receives a complaint alleging potential odour nuisance from the PBG Installation facility:

- a) the complaint will be fed into the registration system;
- b) complaint data will be recorded in a systematic way, enabling comparison with standard odour descriptors, with wind direction and with site work activities.

The PB Gelatins Installation complaints register will be inspected on a daily basis by the Operations Manager to obtain the data necessary for complaints monitoring and analysis. The results of this complaints monitoring and analysis will be reported as described in Section 5.3.

Roles and responsibilities for complaints management

The following team members will deal with specific aspects of the complaint.

- The Supervisor will receive any complaints and co-ordinate their allocation to the appropriate person.
- Complaints regarding individual facilities will be dealt with by the respective Supervisor in communication with the production manager.
- Any unresolved complaints will be escalated to the Production Manager.
- In the unforeseen event that a complaint remains unresolved following escalation to the Production Manager, this will be escalated to the General Manager who will take responsibility for the matter until concluded.

Collecting the relevant complaint details

Wherever possible, the following minimum information will be collected for each complaint: the time and date when the offensive odour was observed;

- the location where the offensive odour was observed, e.g. postal address, grid reference) and its sensitivity;
- the Complainant's description of odour. This should include a subjective description of all the factors necessary to make an assessment of the impact of the odour, including intensity, character, relative unpleasantness (either pleasant, unpleasant or neutral), frequency and duration;
- the activity that is occurring
- the identity of the complainant, if possible, to assess the repeated nature of complaints;
- the residential address of the complainant; and
- any other information the complainant can offer on activities at the alleged odour source.

It is also necessary to collect (by observation or further investigation) the following additional information to allow subsequent analysis and collation of complaints:

- wind direction and speed, and atmospheric stability class at the time of complaint; and
- any process incidents at the time of complaint.
- other off-site activities ongoing at the time, such as agricultural operations.

A standardised PBG form (based on that used by the Environment Agency in its H4 technical guidance note) is used for recording this information and entering it on the registration system.

7.3.2 Investigation of Odour Complaints

This response procedure sets out what investigative actions will be taken in response to a complaint. The aim of the investigative actions will be to establish:

- i. the source of the odour complaint; and
- ii. the impact of the odour.

A series of investigative tools, of increasing sophistication, will be used until these two questions can be satisfactorily answered. This then enables the appropriate odour controls to be applied if the impact is significant and the source is confirmed as the PBG installation.

Complaint screening

The investigation will start with an initial screening of the complaint. If the screening process fails to confirm the odour incident, then the investigation will stop at that point. If the screening process confirms the odour incident, then a more detailed investigation is carried out.

The object of the initial screening is to quickly screen out those odour complaints that are unlikely to be due to the PBG installation, perhaps because they result from some other activities in the area.

The initial screening exercise will consider the following:

- knowledge of potential sources at the PBG installation (including work activities in progress, any technical problems, etc);
- knowledge of potential sources in the locality other than the PBG installation, such as those listed in Section 2.4;
- wind direction at the time of the alleged odour episode;
- distance of the complainant from site; and
- concurrent odour monitoring data (e.g. daily perimeter sniff tests).

If a trained odour assessor is able to attend rapidly after a complaint it may be possible to carry out effective appraisal of the complaints independently by a sniff test.

PBG will liaise with local stakeholders (including the complainant) and inform them on the outcome of the screening assessment of the complaint and whether or not any action is to be taken.

Further investigation of the complaint

If the initial screening concludes that the PBG installation could be the source of the odour complaint, then further investigation will be carried out, which will either 'confirm' and 'further characterise' the odour incident as due to the PBG installation, or it will 'fail to confirm' the incident.

Further investigation will be by means of a graded response, designed to answer the questions:

- can the source of the episode be linked to the PBG installation?
- What is the scale of the impact?

PBG may use odour monitoring (including sniff testing) to provide supporting data to answer these questions, or provide additional confirmation. The monitoring effort is increased in a graduated way until the data generated is sufficient to answer the relevant questions being asked. If the level of monitoring being carried out at a particular stage in the graded response cannot answer the question (either at all, or with sufficient confidence to satisfy stakeholders) then monitoring should move to the next level.

As well as monitoring, PBG may be able to obtain more detailed information from operator records about process conditions, observations or inspections at the time of complaint – this would allow odour trends to be identified and possibly reconciled with particular process operations or maintenance.

7.3.3 Communications with External Stakeholders

Communicating with Natural Resources Wales

In the event that any justified complaint is made by a member of the public about any matter associated with the PBG installation, PBG will provide information on the nature and outcome of the complaint to Natural Resources Wales.

Communicating with complainants

In the case of answer phone messages and complaints submitted by email or by letter, an acknowledgement and initial response will be given by telephone or by email within three working days, provided that telephone or email contact details have been given by the complainant. Where complaints cannot be resolved on initial contact and further investigations are required, a written response will be made within 10 working days of submission of the complaint.

The primary reasons for further investigation of complaints are to assess potential nuisance and identify the likely cause and source of the odour so that nuisance can be reduced or stopped. In the case of further investigations, PBG will communicate to the complainant the course of actions likely to be taken so as to ensure that there is transparency and also to establish at the outset clear targets and goals for determining the success of any control measures.

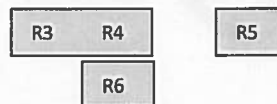
7.4 OMP Update and Review

This OMP is a controlled document, and forms part of the PBG Management System. A comprehensive record of the results of the monitoring and inspection programme contained within Sections 4 and 5 of this OMP will also form part of the local PBG Management System.

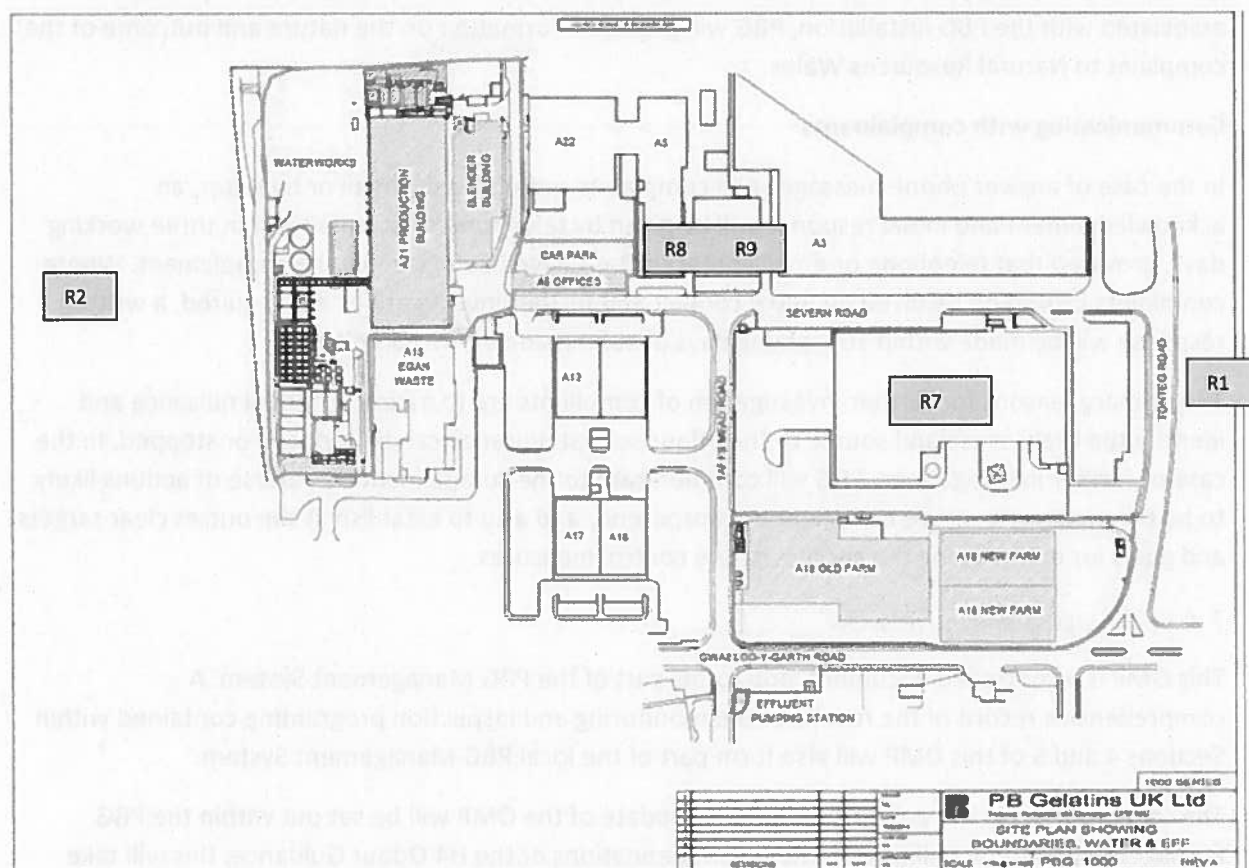
The specification for the periodic review and update of the OMP will be set out within the PBG Management System. In line with the recommendations of the H4 Odour Guidance, this will take place on an annual basis, as a minimum.

However, the OMP is intended to be a live document which serves as a reference during day to day operations, and as such would be updated on a more frequent basis should the following occur:

- significant changes are made to the plant or operational practices;
- there is a change to the management structure, designation of responsibility or training provision;
- the Environment Agency requests that the OMP is updated, in their role as regulator; or
- complaints are received, which on subsequent investigation result in the identification of further control measures or remedial action, in addition to those set out within this OMP.

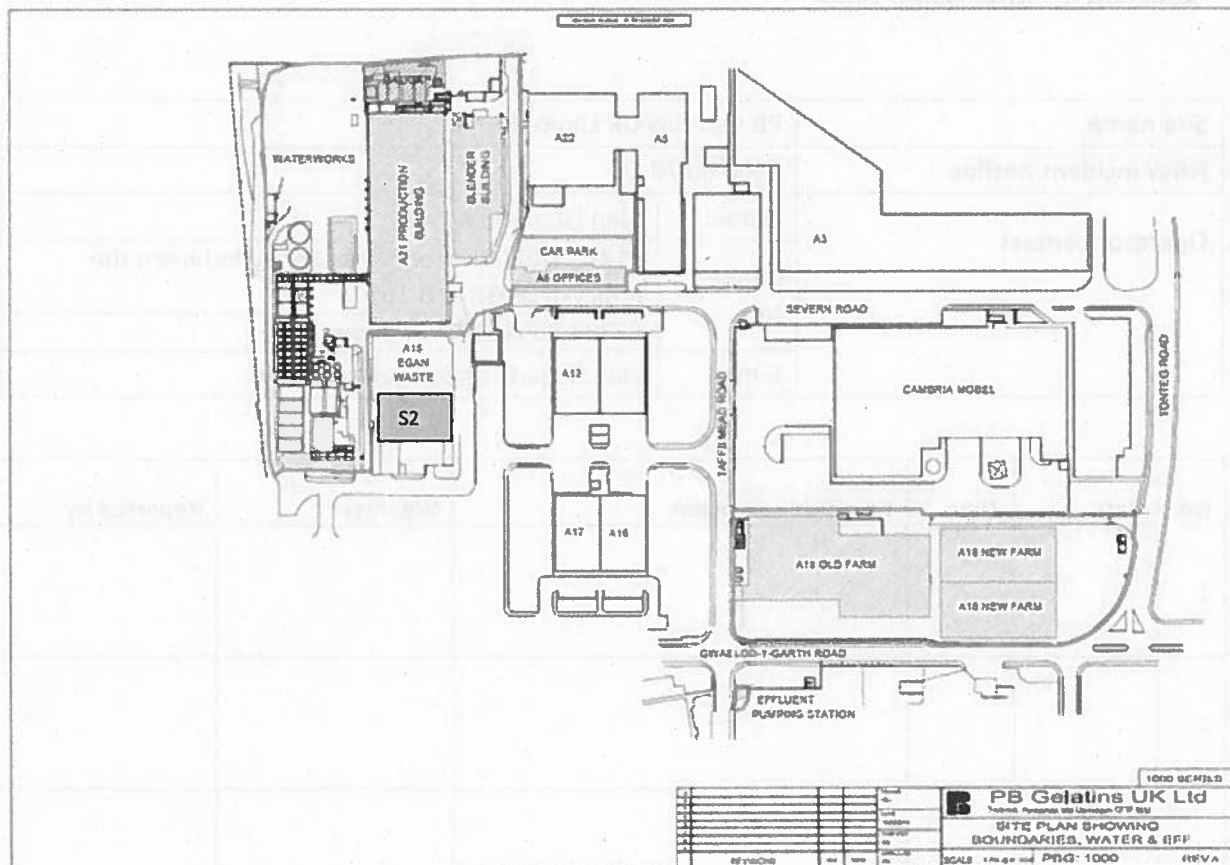


Appendix 1 – PB Gelatins Site Plan and Location of Odour Receptors



Receptor	Property name	Address
R1	Bridge House	Williams Close, Pontypridd, CF37 5BH
R2	Pound Farm	Pound Farm Lane, Pontypridd CF38 1SU
R3	Keyline Builders Merchants	Taffsmead Road, Treforest, Cardiff CF37 5TF
R4	The Welsh Shop	Taffsmead Road, Pontypridd, CF37 5TF
R5	Greggs Shop	Taffs Fall Rd, Pontypridd, CF37 5TF
R6	City Plumbing	Taffs Fall Rd, Pontypridd, CF37 5YQ
R7	Griffin Mill	Tonteg Rd, Pontypridd, CF37 5TF
R8	Petwise	Severn Rd, Pontypridd, CF37 5TF
R9	Café	Severn Rd, Pontypridd, CF37 5TF

Appendix 2 - Location of Potential External Odour Sources



Potential Odour Sources (External)	Property name	Address	Process
S1	Greggs Shop	Taffs Fall Rd, Pontypridd, CF37 5TF	Bakery
S2	Egan Waste	Unit 15A Severn Rd	Waste recycling
S3	Apparelmaster	Treforest Ind Estate CF37 5SQ	Industrial laundry



Appendix 3 – NRW Odour Diary

Site name	PB Gelatins UK Limited	
NRW incident hotline	0800 80 70 60	
Operator contact	Name:	Alan Fitzpatrick
	Phone No:	01443 849300 Monday to Friday between the hours of 08:30 and 16:30
		07733 365961 (Shift Supervisor)
	E-mail	alan.fitzpatrick@pbgelatins.co.uk

No.	Date	Time	Details of complaint	Weather	Reported by
1					
2					
3					
4					
6					
7					
8					