



**Bromsgrove**  
District Council

[www.bromsgrove.gov.uk](http://www.bromsgrove.gov.uk)

Worcestershire  
**Regulatory Services**

*Supporting and protecting you*

**Environmental Permitting (England & Wales) Regulations 2010  
(as amended)**

**Permit to operate an Animal Rendering Activity**

Issued to:

***Phoenix By Products Ltd.***

**Installation and Registered Office address:**

Mayfield Farm  
Canalside  
Hopwood  
Alvechurch  
Birmingham  
B48 7AA

Company Registration Number: 08964615

**Permit Reference: 14/00012/TRANSF**

**Permit Issue date 1/04/15**

## LA - IPPC Introductory Note

This introductory note does not form part of the permit

### Introduction

The following permit is issued under Regulation 21 of the Environmental Permitting (England and Wales) Regulations 2010, subsequently referred to as the EP Regulations. This permit allows the named operator to operate an installation carrying out one or more of the activities listed in part 2 of schedule 1 of the EP Regulations, to the extent authorised by the Permit.

The Permit includes conditions that must be complied with. Failure to comply with the conditions within the Permit means Bromsgrove District Council may take enforcement action against the Operator. It should be noted that aspects of the operation of the installation that are not regulated by those conditions, are subject to the conditions implied in EP Regulation 106(1) and Regulation 64(2). This says that the operator shall use the Best Available Techniques (BAT) for preventing or, where that is not practical, reducing emissions from the installation. Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned. For an interpretation of 'best available techniques' see Annex VIII of '*General Guidance Manual on Policy and Procedures for A2 and B Installations Part B of Manual*'

Effective control of emissions requires the maintenance and proper use of equipment, and the proper supervision of the process operations. Adequate preventative maintenance should be undertaken on all plant and the equipment concerned with the control of emissions. Essential spares and consumables should be held or should be available at short notice from guaranteed local supplies.

Staff at all levels should receive the necessary formal training and instructions in their duties relating to control of the process and emissions. Particular emphasis should be given to training for start-up, shut down and abnormal conditions. Good housekeeping should be practised at all times.

This document has been drawn up with reference to the Secretary of State's Guidance '*General Guidance Manual on Policy and Procedures for A2 and B Installations*'

### Relationship to other Legislation

This Permit relates to the control of emissions to the environment from a prescribed activity from the named Installation. The Permit does not detract from any other statutory requirement, such as the need to obtain planning permission, hazardous substances consent, discharge consent from the Environment Agency, building regulations approval, or a waste disposal licence. In addition, it must not be taken to replace any responsibilities for health, safety and welfare in the workplace under workplace Health and Safety legislation.

### Commercial Confidentiality and the Public Register

The Permit requires the Operator to provide information to Bromsgrove District Council. In accordance with the requirements of the EP Regulations, the Council will place certain information (including the Permit) onto a public register. If the operator considers that any information provided is commercially confidential, it may apply to Bromsgrove District Council to have such information withheld from the register. To enable Bromsgrove District Council to determine whether the information is commercially confidential the operator should clearly identify the information in question and should specify clear and precise reasons. The public register is held at the offices of Bromsgrove District Council (see below for address) and is available to view during working hours.

### **Changes to the Authorised Process**

If the operator proposes to make a change in operation of the installation, he must, at least 14 days before making the change, notify the regulator in writing. The notification must contain a description of the proposed change in operation. It is not necessary to make such a notification if an application to vary this permit has been made and the application contains a description of the proposed change. In this condition 'change in operation' means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.

### **Variations to the Permit**

Bromsgrove District Council may, at any time, vary the permit by means of a Variation Notice (EP Regulation 20).

The operator may apply to Bromsgrove District Council for permission to vary the permit (EP Regulation 20).

### **Appeal Against Permit Conditions**

The operator may appeal to the Secretary of State for the Department for Environment, Food and Rural Affairs (DEFRA) with respect to the content of the permit. Appeals must be made in accordance with the requirements of Regulation 31 and Schedule 6 of the EP Regulations.

Appeals should be received by the Secretary of State for DEFRA at:

The Planning Inspectorate  
Registry/Scanning  
Room 3/05 Kite Wing  
Temple Quay House  
2 The Square  
Temple Quay  
Bristol BS1 6PN  
0117 372 6372

### **Online appeals service**

For queries relating to the online appeals service, please contact the PCS External Customer Team on 0117 372 6372 or by e-mail to [pcs@pins.gsi.gov.uk](mailto:pcs@pins.gsi.gov.uk).

An appeal brought under EP Regulation 31 in relation to the conditions in a Permit will not necessarily suspend the effect of the conditions appealed against; the conditions must still be complied with.

### **Surrender of the Permit**

Where an operator intends to cease the operation of an Installation (in whole or part) Bromsgrove District Council should be informed in writing. Such notifications must include the information specified in Regulation 25 and Part 1 of the Fifth Schedule of the EP Regulations.

### **Revocation of the Permit**

The Bromsgrove District Council may also revoke the Permit by the service of a Revocation Notice on the operator (EP Regulation 22)

### **Fees**

In accordance with EP Regulation 65, the holder of a Permit is required to pay a fee for the subsistence of the Permit. This fee is payable annually on 1 April and the operator will be sent an invoice for the amount accordingly; the amount payable is reviewed and published annually by central government. You are advised that under the provisions of EP Regulation 65(5), if you fail to pay the fee promptly, Bromsgrove District Council may revoke or suspend the Permit.

### **Transfer of the Permit or Part of the Permit**

Before the Permit can be wholly or partially transferred to another person, a joint application to transfer the Permit has to be made by both the existing and proposed holders, in accordance with EP Regulation 21. A transfer will be allowed unless Bromsgrove District Council considers that the proposed holder will not be the person who will have control over the operation of the installation or will not ensure compliance with the conditions of the transferred permit.

### **Contact Information**

Worcestershire Regulatory Services  
Wyre Forest House  
Finepoint  
Kidderminster  
DY11 7WF  
Phone: 01905 822799  
fax: 01562 745516  
email: [wrsenquiries@worcsregservices.gov.uk](mailto:wrsenquiries@worcsregservices.gov.uk)

### **Brief description of the installation regulated by this permit**

Disposing of or recycling animal carcasses or animal waste by rendering at a plant with a treatment capacity exceeding 10 tonnes per day of animal carcasses or animal waste , or, in aggregate, of both.

The installation will produce processed animal protein (PAP) and associated fats/oils from the raw materials being introduced to the system. The processing line is a continuous system. The site is currently licenced by the Animal Health and Veterinary Laboratories Agency (AHVLA) to process Category 3 materials, as defined by the Animal By-Products Regulations 2003 and Regulation EC No. 1774/2002 of the European Parliament and of the Council as amended.

Condition 59 refers to noise from the installation, until this condition has been deemed to be complied with by the regulator the installation shall only be operated between 8am and 6pm Monday to Saturday and at no time on Sundays or public holidays.

### **Raw Material Reception**

The material will arrive in covered lorries. These will be weighed at the weighbridge. On arrival a record of each load will be made containing details of the time, weight, description and origin of the material, as required by the AHVLA.

The vehicle will enter through the outer building door, the door will close behind the vehicle. The sealed lid of the raw material hopper will be opened and the material will be tipped into the hopper; the vehicle will move away from the hopper.

The lid of the hopper will be re-sealed, this will activate a time delay switch interlocked to the outer building door which will prevent the outer building door being opened until one complete air change of the raw material receiving area has been achieved. During this time the vehicle container will be washed out.

After the time delay has elapsed the outer door can be opened and the vehicle can exit. These areas will be continually vented to the thermal oxidiser when the installation is in operation. When the installation is not in operation the area will be continuously vented to the carbon filtration abatement system.

### **Material Processing**

On demand, blended material from the hopper will be transferred at a controlled rate via screw conveyors to the double anvil pre-hog unit, this will give an effective size reduction of the material prior to rendering. This material is then screw conveyed to the cooker surge bin.

The cooker is validated to a time and temperature process by the AHVLA. The cooked material (greaves) will be screw conveyed into the fat extraction press. The pressed cake is screw conveyed to the hammer mill and then onto the rotex screen which effectively removes oversize and foreign matter; the foreign matter being disposed of in accordance with relevant animal by-product/waste legislation.

The meal product is then transferred to either one ton tote bags or a trailer as a bulk load.

The fat arising from the press is collected in the crude oil transfer and collection tank prior to transfer to the oil vibrating screen for removal of the largest percentage of solids (fines). The fines are then returned to the greaves receiving hopper prior to blending and

repressing. The refined oil is then pumped to the oil work tank, after a settling time has elapsed the oil is transferred to the bulk storage tanks.

All waste water from internal washing, cleaning activities where there has been contact with the raw or processed material shall be directed to the raw material reception hopper for processing in the plant.

## **Odour control**

### **When the process is operational**

All foul odours from the process including venting of the raw material hoppers, hammer mills, screens and cookers and oil storage tanks are drawn via extract hoods and take off points and are ducted to the effluent collector. Here condensate is collected and non-condensable gases are passed to the thermal oxidiser for incineration.

The function of the thermal oxidiser is:-

- a) The primary odour abatement system.
- b) The primary steam generating system for the process.

The thermal oxidiser is a Babcock Wansen type DEO/9800 which includes a steam atomising burner fuelled by gas oil, combined with oxidisation technology and a waste heat recovery system to ensure thermal efficiency.

### **When the process is not operational**

When the process is not operating the thermal oxidiser will not operate. All odorous air from the process building is drawn via extraction hoods and take off points and is ducted to the carbon adsorption odour control system. The carbon adsorption odour control system comprises of a 2 stage carbon filter design.

The concept is that the 1st stage main carbon filter media will be changed after one year during a period when the thermal oxidiser is off line. While this is in progress the 2nd stage emergency carbon filter will be on-line. Carbon usage over this short period will be negligible. This will prevent any odour release during this period.

At all times the carbon in the 2nd stage will be un-depleted so that it is always available. In addition the last 0.5 tonne of carbon 1/8th of the total in the main filter will be available to remove a proportion of any abnormal release. The sampling lines will make this easy to assess.

After an Abnormal event the carbon will be assessed and changed as appropriate.

When the process is operating normally (during the day) the carbon filter fan will not operate and the duct leading to the standby carbon filter will be isolated by an actuated damper.

### **Contingency Arrangements**

In the event of an emergency due to the thermal oxidiser ceasing to function during processing, an odour abatement back up system is in place to ensure that untreated odours do not escape into the atmosphere.

BAT for installations in this sector is taken to be that prescribed in the Secretary of State's Guidance for the A2 Rendering Sector 'Sector *Guidance Note IPPC SG8*' and any amendment thereto. The Council has had regard to this when granting the Permit.

The following Appendices are attached and form part of the permit:

Appendix 1 – Table 1.1: Emission limits  
Table 1.2: Monitoring methods for odour  
Table 1.3: Emissions to air associated with the use of BAT

Appendix 4 – Plans  
Figure 4.1: Site location  
Figure 4.2: Site Plan and Boundary  
Figure 4.3: Layout of Processing and Storage Areas

**End of Explanatory Note**

**Permit**

The District Council of Bromsgrove (The Regulator) in exercise of its powers under Regulation 21 of the Environmental Permitting (England & Wales) Regulations 2010 (as amended) hereby permits:

**Phoenix By Products Ltd. (“the operator”)**

Whose registered office is:

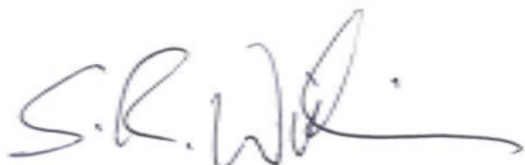
**Mayfield Farm  
Canalside  
Hopwood  
Alvechurch  
Birmingham  
B48 7AA**

**Company Registration Number 08964615**

To operate an installation at:

**Mayfield Farm  
Canalside  
Hopwood  
Alvechurch  
Birmingham  
B48 7AA**

To the extent authorised by and subject to the conditions of this Permit and operated within the boundary outlined in attached plan (Figure 4.2).



**Steve Williams**  
Technical Officer  
Worcestershire Regulatory Services  
Authorised on behalf of The District Council of Bromsgrove

**Dated 1/04/15**

**Permit Reference 14/00012/TRANSF**

**Conditions**



## **The Permitted Installation**

- 1) If the operator proposes to make a change in the operation of the installation, he must, at least 14 days before making the change, notify the regulator in writing. The notification must contain a description of the proposed change in operation. It is not necessary to make such a notification if an application to vary this permit has been made and the application contains a description of the proposed change. In this condition “change in operation” means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.
- 2) The best available techniques shall be used to prevent, or where that is not practicable, reduce emissions from the installation in relation to any aspect of the operation of the rendering facility which is not regulated by any other condition of this permit.
- 3) The activities authorised under this permit shall not extend beyond the boundary of the site shown in red in Figure 4.2 of Appendix 4.

## **Emissions to Air**

### **Dispersion and dilution of stack emissions - All releases to air**

- 4) The operator must respond to any Information Notice served on him for the purposes of complying with his obligation to report his pollutant releases and off-site waste transfers pursuant to the directly applicable EU duty in accordance with Article 5 of EC Regulation No 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register.
- 5) The operator shall ensure that all operations which generate emissions to air are contained and extracted to arrestment plant where this is necessary to meet specified emission limits in table 1.1 of Appendix 1
- 6) The operator shall ensure that emissions from combustion processes in normal operation are free from visible smoke and in any case do not exceed the equivalent of Ringelmann Shade 1 as described in British Standard BS 2742:1969
- 7) The operator shall ensure that the exhaust gases discharged through the stack achieve an exit velocity of greater than 15m/sec during normal operating conditions to achieve adequate dispersion.
- 8) The operator shall ensure that flues and ductwork are cleaned to remove any accumulation of materials, in accordance with a routine maintenance programme.

### **Control of Fugitive Emissions to Air**

- 9) The operator shall make an inventory of fugitive particulate emissions which shall be updated on an annual basis (on the anniversary of the date of the issue of the Permit) and submitted to the regulator to demonstrate progress in reducing emissions.
- 10) All conveyor discharges shall be located within a building and be arranged to minimise free fall of dusty materials to minimise emissions of particulate matter.

- 11) Un-bagged greaves and bonemeal shall only be bagged and transferred within the building envelope vented to the odour control system, with the doors closed. The transportation and handling of dusty materials, including spillages shall be carried out by methods that do not give rise to dust emissions. All movement of greaves and bonemeal outside the building envelope shall be in enclosed or sheeted containers.
- 12) Ingress or egress of vehicles from the processing area shall not be permitted during the operation of the cooker. The operator shall ensure that the operation of this access door is lockable and interlinked with the operation of the cooker.
- 13) Spillages including greaves, bonemeal or tallow outside the process building envelope shall be cleaned up as soon as possible after they occur.

### **Emissions and Control of Emissions to Surface Water, Sewer and Groundwater**

- 14) The operator shall ensure that all operational areas are equipped with an impervious surface, spill containment kerbs, sealed construction joints, and connected to a sealed drainage system. The condition of the impervious surface should be checked regularly and the results of inspections and intended maintenance arising shall be recorded.
- 15) The operator shall hold a plan on site which identifies all installation drains, subsurface pipework, sumps and storage vessels on site including then type and broad location of the receiving environment. This plan shall be available for inspection by the regulator.
- 16) The operator shall identify the potential risk to the environment from drainage systems recorded by condition 15 and shall devise an inspection and maintenance programme having regard to the nature and volume of waste waters, groundwater vulnerability and proximity of drainage systems to surface waters.
- 17) All liquid storage tanks shall be located within bunds that are designed, constructed and located away from watercourses and drains to appropriate standards and ensuring that the volume is more than 110% of the largest tank.
- 18) Storage tanks should be fitted with high-level alarms or volume indicators to warn of overfilling and where practical the filling system should be interlocked to the alarm system to prevent overfilling. Delivery connections shall be located within the bunded area, fixed and locked when not in use.

### **Odour Control**

- 19) All raw materials shall arrive at the plant in totally covered vehicles or containers designed to minimise offensive odour and spillage of any liquid or solid matter.
- 20) Vehicles and containers containing raw materials shall be kept covered until they enter the raw materials reception area and the door is closed.
- 21) Within the raw material reception area and immediately following the discharge of their contents, empty vehicles and containers shall be washed inside using hot pressurised water. Vehicles and containers shall be cleaned externally twice weekly or more frequently if required.

22) Raw materials for the rendering operation shall be kept dry and cool, out of direct sunlight and in a fully enclosed container or part of the building that is under controlled ventilation and vented to atmosphere via the suitable arrestment plant (see condition 24). Raw materials shall be processed as soon as possible and in any event, on the day of receipt. Records of when each delivery of material is processed shall be kept and be made available to the Regulator on request.

23) The operator shall prevent the release of offensive odour beyond the installation boundary, as perceived by the local authority inspector, who will take into account the nature of the odour. It shall not be a breach of the condition in a particular case if the operator can show that he or she took all reasonable steps and exercised all due diligence to prevent the release of offensive odour.

For the operator to show that he or she took all reasonable steps and exercised all due diligence to prevent the release of offensive odour the operator shall investigate the occurrence and present a written submission to the Regulator within 3 days of being notified of the occurrence.

In the event of any offensive odour occurrence beyond the installation boundary, the operator shall immediately take remedial action to prevent any further escape of offensive odour and this shall be effective within at most two hours. Where this is not achieved the operator shall close the process down and demonstrate to the Regulator why offensive odour control was not achieved.

24) All emissions of odourous air shall be contained and ducted to arrestment plant as follows:

- I. When the rendering process is in operation, foul air and building extraction air shall be incinerated in the thermal oxidiser,
- II. When the rendering process is not in operation, building extraction air shall be treated by carbon filtration.

25) Extraction flow rates from the various process units (Drainer, Press, Hammer mill and Vibro screen) shall be adequate to prevent loss from the process units and extraction duct work.

26) When the rendering process is in operation all odourous gas streams shall be incinerated in the thermal oxidiser. From commencement of the operation of the plant as defined by the initial receipt of raw material, to plant shut down as defined by the shut down of the meal screens, the thermal oxidiser shall be set to run permanently at a minimum fire rate to achieve a minimum combustion temperature of 950°C. If at any time during plant operation, the combustion temperature fails to achieve a minimum combustion temperature of 950°C the regulator shall be informed immediately.

27) Continuous records shall be kept of the combustion chamber temperature for the thermal oxidiser. These records will be available on-site for inspection by the regulator and kept for a minimum of two years.

28) Without prejudice to condition 24, in the event of arrestment plant breakdown the system shall be fail safe and allow diversion of odour streams to an air

cooled condenser and then to the carbon filter system. The regulator shall be informed immediately.

- 29) Following an event of arrestment plant breakdown the operator shall re-assess the available capacity of the carbon filter to determine if the carbon filter bed has sufficient capacity for continued operation. The results of the assessment shall be available to the regulator within seven days.
- 30) Extraction rates shall be maintained within the entire building envelope in order that it remains under negative pressure at all times. The function of the extraction fan shall be checked daily and at least once per shift. This inspection shall be recorded and be available for inspection by the regulator.
- 31) Tanks or receptacles for the storage of tallow shall be vented internally into the processing area.
- 32) The integrity of all buildings shall be maintained to prevent the uncontrolled escape of foul air from the buildings. Doors shall have seals and be kept closed except for the movement of vehicles and personnel. Personnel shall only use personnel doors (which shall be self-closing) to enter and exit the buildings. At the request of the regulator testing of the integrity of the buildings shall be undertaken.
- 33) All doors used by vehicles should be of the rapid opening and closing type. In addition:

The vehicle access door serving the raw material area for the continuous process area shall be interlocked to ensure that it is not possible to open this door and hopper lid simultaneously. Once the raw material has been unloaded into the hopper and the lid closed the access door shall be prevented from opening for 15 minutes [1 air change].
- 34) The times when processing takes place shall be recorded and be available for inspection by the Regulator.
- 35) The Regulator shall be informed and appropriate controls agreed before burning fuel other than gas oil as part of the permitted activities at the site.
- 36) The use of odour-masking agents and counteractants is not permitted.
- 37) The operator shall demonstrate that the thermal oxidiser shall achieve a maximum emission of  $2,200 \text{ OU}_{\text{EM}^{-3}}$  in order to prevent a ground level concentration of  $1.5 \text{ OU}_{\text{EM}^{-3}}$  beyond the installation boundary. The operator shall evaluate the effectiveness of the thermal oxidiser in accordance with this limit and the hedonic tone of the odour sample. The level of odour including hedonic tone shall be annually evaluated as per Table 1.2 of Appendix 1.
- 38) The operator shall demonstrate that the carbon filter system shall achieve a maximum emission of  $1000 \text{ OU}_{\text{EM}^{-3}}$  in order to prevent a ground level concentration of  $1.5 \text{ OU}_{\text{EM}^{-3}}$  beyond the installation boundary. The operator shall evaluate the effectiveness of the carbon filter in accordance with this limit and the hedonic tone of the odour sample. The level of odour including hedonic tone shall be annually evaluated as per Table 1.2 of appendix 1.

- 39) Solid waste remaining on completion of the process, still capable of the emission of substances prescribed to air or offensive odours, shall be stored within an enclosed area which shall be extracted to the odour arrestment plant.

## **Management and Accidents**

### **Cleaning**

- 40) A comprehensive cleaning programme should be instituted. This cleaning programme shall include as minimum:
- a) all structures, equipment and internal surfaces and non-disposable containers used for raw materials;
  - b) the cleaning and disinfecting of all drainage, collecting tanks and yards to be undertaken at least once a week;
  - c) a cleaning regime for external structures including the building envelope, and tallow tanks;
  - d) a housekeeping schedule which shall be practiced at all times; and
  - e) The response for cleaning spillages, which shall be cleaned up immediately and preventative measures put in place to avoid a recurrence of the incidents causing the spillage.

The cleaning schedule should be reviewed annually. Works carried out shall be documented and be available for inspection by the regulator

### **Operations and Maintenance**

- 41) An effective operational and preventative maintenance system shall be used on all aspects of the installation whose failure could impact on the environment and as detailed in this permit. There shall be:
- a) documented operational control procedures;
  - b) a documented preventative inspection and maintenance schedule, covering all plant whose failure could lead to impact on the environment, including warning systems and major 'non productive' items such as tanks, pipework, retaining walls, bunds, ducts and filters;
  - c) documented procedures for monitoring emissions;
  - d) procedures for minimising energy loss;
  - e) a method of reviewing maintenance needs, with demonstrable evidence that this process takes place;
  - f) written procedures in place to deal with damaged or leaking containers

Copies of all procedures relating to this permit shall be held together for inspection by the regulator. Works carried out shall be recorded and this system shall be reviewed and updated annually.

- 42) Spares and consumables shall be available at short notice in order to rectify breakdowns rapidly. This is important with respect to abatement plant and other necessary environmental controls. The operator shall provide an audited list of essential spares and consumables and delivery times for the same if not held on site.

### **Competence and Training**

- 43) A formal structure shall be provided showing the level of each employee's responsibilities with regard to process control and environmental impacts. A copy of the formal structure shall be prominently displayed in the factory.
- 44) Training and instruction shall be given to all employees sufficient for them to fulfil their designated duties. Details of such training and instruction shall be entered on the employee's record and be made available for inspection by the regulator.
- 45) The potential environmental risks posed by the work of contractors shall be assessed and instructions shall be provided to contractors about protecting the environment while working on site.

### **Accidents, Incidents and Non-conformance**

- 46) The operator shall maintain an accident management plan, agreed with the regulator for investigating incidents, (and near misses) including identifying suitable corrective action and following up. The plan shall include:

#### **Hazards:**

- Transfer of materials
- Plant or equipment failure (pump or fan failure, blocked drain)
- Fire
- Vandalism
- Vehicle movements

#### **Risk Assessment**

- how likely is the particular event to occur (source frequency)?
- what substances are released and how much of each (risk evaluation of the event)?
- where do the released substances end up (emission prediction - what are the pathways and receptors, is the emission harmful to human health or the quality of the environment)?
- what are the consequences (consequence assessment – what are the effects on the receptors)?
- what is the overall risk (determination of overall risk and its significance to the environment)?

- what can prevent or reduce the risk (risk management – measures to prevent accidents and/or reduce their environmental consequences)?

### **Process Management & Control**

- process design, alarms, trips and other failsafe control techniques to ensure the safe operation of the plant
- security systems to prevent unauthorised access
- records of all incidents, near-misses, changes to procedures, abnormal events and findings of maintenance inspections and procedures to learn from such incidents
- personnel suitably trained in accident management
- guidance for specific accident scenarios
- procedures to ensure good communication among operations staff during shift changes and maintenance or other engineering work
- safe shutdown procedures
- established communication routes with relevant authorities and emergency services

### **Preventative Measures**

- procedures to ensure that the composition of the contents of a bund /sump is checked before treatment or disposal
- drainage sumps equipped with a high-level alarm with automatic pump to storage
- high-level alarms etc. (which should not be routinely used as the primary method of level control)
- adequate standby plant or equipment maintained and tested to operational standards
- sufficient storage to contain process waters, site drainage waters, emergency firewater, chemically contaminated waters and spillages of chemicals, which should be routed where necessary, having regard to a site-specific assessment of risks, to the effluent system
- provision to contain surges and storm-water flows, which should be treated where necessary, having regard to a site-specific assessment of risks, before emission to land
- spill contingency procedures to minimise the risk of accidental emission of raw materials, products and waste materials and to prevent their entry into water
- procedures should be in place for checking and handling raw materials and wastes to ensure compatibility with other substances with which they may accidentally come into contact.

- suitable barriers to prevent damage to equipment from the movement of vehicles, as appropriate, having regard to a site-specific assessment of risks
- there should be procedures for responding to and learning from incidents, near-misses, etc.
- the roles and responsibilities of personnel involved in incident management should be formally specified.
- where indicated by the site-specific assessment of risks, containment or abatement for accidental emissions from vents and safety relief valves/bursting discs should be provided.
- where any of the above may be inadvisable on safety grounds, attention should be focused on reducing the probability of the emission

The accident management plan devised in accordance with this condition shall be instituted and annually reviewed. Works carried out shall be documented and be available for inspection by the regulator.

- 47) In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions or giving rise to odour complaints, the operator shall
- carry out an investigation and remedial action immediately;
  - adjust the process or activity to minimise those emissions;
  - promptly record the events and actions taken; and
  - inform the regulator without delay
- 48) A competent person shall be appointed to liaise with the regulator and the public with regard to complaints. The regulator shall be informed of the designated individual.

### **Raw Materials**

- 49) The operator shall adopt procedures to control the specification of those types or raw materials with the main potential for environmental impact, in order to minimise any potential environmental impact. An annual review of alternative raw materials shall be carried out with regard to environmental impact.

### **Waste Minimisation**



- 50) The operator shall record materials usage and waste generation in order to establish internal benchmarks. Assessments shall be made against benchmarks to maintain resource efficiency.
- 51) The operator shall carry out a waste minimisation audit within six months of the first commercial operation after issue of the permit and repeat every four years thereafter. The methodology used and an action plan for optimising the use of raw materials shall be submitted to the regulator within 2 months of completion of the audit.
- 52) Specific improvements resulting from the recommendations of audits shall be carried out within 6 months.

### **Water Use**

- 53) The operator should carry out a review of water use (water efficiency audit) within six months of the first commercial operation after issue of the permit and repeated every 24 months thereafter. The results of the audit shall be available to the regulator within two months of completion.
- 54) Using Information from these audits, opportunities for reduction in water use should be assessed and, where appropriate, should be carried out in accordance with a time scale approved by the regulator.
- 55) The volume of mains [and any other water] used in the activities should be directly measured when the installation is operating once a day for at least a fortnight and thereafter, once a week with an annual exercise taking daily measurements for at least a fortnight. All measurements should be recorded and the records held on site.

### **Energy Use**

- 56) The operator shall within within six months of first commercial operation after issue of the permit, produce a report on the energy consumption of the installation. The report, in the form of an audit, shall include an annual review of energy flows and target areas for reduction. The report shall be repeated annually thereafter. The results of the audit shall be available to the regulator within two months of completion.
- 57) The operator shall investigate implementing the following energy saving techniques
  - heat recovery from different parts of the processes
  - minimisation of water use and closed circulating water systems
  - good insulation
  - plant layout to reduce pumping distances
  - phase optimisation of electronic control motors and fans
  - optimised efficiency measures for combustion plant
  - preventative maintenance programme targeting energy drops

### **Noise and Vibration**

- 58) Until such a time that the operation of the installation is deemed, by the regulator, to be compliant with condition 59, the installation shall not operate between 1800 hours and 0800hours Monday to Saturday and at no time on Sundays and public holidays. Otherwise the installation shall not operate between 06:00hours and 23:00hours Monday to Saturday and at no time on Sundays and public holidays.
- 59) The rating level ( $L_{A,r,Tr}$ ) of the noise from the installation/activities shall not exceed the Background Noise Level ( $L_{A90,T}$ ) within any one-hour period between 0700 hours and 2300hours, and within any 5-minute period between 0600hours and 0700hours, at the boundary of any noise-sensitive receptor. The measurements and assessment shall be made in accordance with BS 4142:2014 *Methods for rating and assessing industrial and commercial sound*.
- 60) Noise monitoring shall be undertaken by the site operator within two weeks of the first commercial operation after issue of the permit and annually thereafter. Further noise monitoring shall be undertaken if a review by the regulator of the results of earlier monitoring indicates this is justified, or in the event that complaints are received which indicate this is justified. The results of noise monitoring shall be kept for at least five years, and shall be presented to the enforcing authority within five working days of any request. The measurements and reporting shall be carried out in accordance with BS4142: 2014.
- 61) All reasonable steps shall be employed to minimise the emission of noise from vehicles, plant and machinery and in particular efficient silencers, to the manufacturers' specifications, shall be fitted to all vehicles, plant and machinery used on the site.
- 62) All windows, doors and shutters including loading bays access etc. shall be kept closed at all times except when in immediate use. All external personnel doors shall be fitted with self-closing mechanisms to ensure they cannot be left open. Other external doors shall be fitted with self closing devices where this can be achieved without compromising safety.
- 63) Single tone vehicle reversing alarm sounders shall not be used on vehicles and machinery operated by or under the control of the site operator. Where the use of a vehicle reversing alarm sounder cannot be avoided, then non-tonal/broadband types shall be utilised.
- 64) Before any plant and/or machinery is used on the premises, it shall be enclosed where feasible with sound-insulating material and be mounted so as to minimise transmission of structure-borne.
- 65) Plant, machinery and equipment shall be maintained in accordance with the manufacturers' instructions and on at least an annual basis. Weekly maintenance checks shall also be carried out.
- 66) The eastern elevation of the thermal oxidiser plant room shall be of at least double- skinned steel, with a minimum construction of:
- An outer skin of 0.7mm steel (profiled)
  - an inner skin of 0.4mm (or greater) perforated steel or expanded metal having a free area of not less than 30%

- a 100 to 120mm void, filled with mineral or glass-fibre insulation of 20 to 40 kg/m<sup>3</sup> density;
- access door(s) of either steel sheet (not less than 3mm) or solid timber (minimum 30 mm thick)
- all cladding gaps closed and sealed;
- all chimney/duct penetration gaps to be closed and sealed.

### **Monitoring and sampling protocols**

- 67) The operator shall monitor emissions, make tests and inspections of the process. Where monitoring is required the operator shall address and report the following:
- a) determinands to be and actually monitored;
  - b) operating and process conditions and process variables at the time of the emissions.
  - c) monitoring strategy and selection of monitoring points;
  - d) monitoring methods and procedures;
  - e) reference conditions and averaging periods;
  - f) measurement uncertainty of the proposed methods and the resultant overall uncertainty;
  - g) drift correction
  - h) quality assurance (QA) and quality control (QC) protocols, equipment calibration and maintenance, sample storage and chain of custody/audit trail;
  - i) reporting procedures, data storage, interpretation and review of results, reporting format for the provision of information to the Regulator; and
  - j) the accreditation held by samplers and laboratories or details of the people used and the training/competencies.
- 68) The operator shall ensure that the monitoring arrangements comply with the requirements of the Environment Agency Monitoring Certification Scheme (MCERTS) where available, e.g. using certified instruments and equipment, and using a registered stack testing organisation etc.

### **Monitoring and reporting**

- 69) Records shall be kept of audits, inspections, tests and monitoring and visual assessments. Records shall be kept by the operator on site for at least two years and be made available for the regulator to examine.
- 70) The operator shall notify the Regulator at least seven days before the annual thermal oxidiser and carbon filter odour tests conducted in accordance with conditions 37 and 38. The operator shall state the time and date of testing and the methods to be used. The results of the thermal oxidiser and carbon filter odour tests, including recommendations for improvement as a result of the testing, shall be forwarded to the Regulator within eight weeks of the completion of the testing.
- 71) In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions the events and actions taken should be promptly recorded.
- 72) The regulator shall be informed without delay:
- if there is an emission that is likely to have an effect on the local community;
  - in the event of thermal oxidiser failure or the carbon filter failing or if the building integrity is compromised; and
  - if continuous monitoring shows an emission concentration exceeding double the limit value.

#### **Monitoring and reporting of emissions to air (including odour)**

- 73) The introduction of dilution air to achieve emission concentration limits shall not be permitted.
- 74) The emission limits listed in Tables 1.1, 1.2 and 1.3 of Appendix 1 shall not be exceeded.
- 75) Sampling points shall comply with CEN or Other Standards. e.g. BS EN 13284-1 or BS ISO 9096:2003 for sampling particulate matter in stacks.
- 76) Continuous monitoring of particulate matter emitted in the exhaust gas stream from the thermal oxidiser shall be undertaken by the Operator. The meter shall be calibrated annually in conjunction with an extractive gravimetric isokinetic sampling exercise as specified in Table 1.1 of Appendix 1. The meter shall be set to alarm at 40mg/m<sup>3</sup> and exceedences of these values shall be recorded and made available at the request of the Regulator.
- 77) The dust monitor shall be checked daily for operational integrity.
- 78) The operator shall notify the regulator in writing at least seven days before any extractive emission monitoring to determine compliance with emission limit values. The operator should state the provisional time and date of monitoring, pollutants to be tested and the methods to be used.
- 79) The results of non-continuous emission testing shall be forwarded to the regulator within eight weeks of the completion of the sampling.
- 80) Adverse results from **any** monitoring activity (both continuous and non-continuous) should be investigated immediately. The operator shall ensure that:

- the cause has been identified and corrective action taken
- as much detail as possible is recorded regarding the cause and extent of the problem and the action taken to rectify the situation
- re-testing to demonstrate compliance is carried out as soon as possible; and
- the regulator is notified.

### **Decommissioning**

- 81) The operator shall maintain a plan (“the Decommissioning Plan”) setting out the steps to be taken by the operator after final cessation of the permitted activity.

## Appendix 1

### Table 1.1

#### Emission Limits

Pollutant Emission	Emission Limit Concentration	Frequency
Total Particulate matter	50mg/m <sup>3</sup>	Continuous  Plus  Annual

The emission limit values are expressed at the reference conditions of 273.15K, 101.3 kPa (1 atmosphere) and measured wet, no correction for water vapour.

### Table 1.2

	Substance	Source	Provision	Type of monitoring	Monitoring frequency (note 1)
1	Odour	Contained process releases	Thermal oxidiser shall achieve an emission limit value not exceeding 2,200 OU <sub>EM</sub> <sup>-3</sup>  Carbon filter system shall achieve an emission limit value not exceeding 1,000 OU <sub>EM</sub> <sup>-3</sup>	Determination by manual extractive sampling and analysis by dynamic olfactometry in accordance with BS EN13725.	Annual

Note 1: The frequency of testing shall be increased, for example, as part of the commissioning of new or substantially changed processes, or in circumstances where odour problems persist

**Table 1.3**

**Emissions to air associated with the use of BAT**

Determinand	Source	Limit	Type of monitoring	Frequency of monitoring
Offensive odour	Whole process	No offensive odour across the site boundary in accordance with BAT 31	Olfactory	At least daily
Visible emissions	Thermal Oxidiser	Ringelmann Shade 1	Visual	At least daily
Visible emissions	Whole process	Free from persistent visible emission (other than water vapour)	Visual	At least daily
Particulate matter	Thermal Oxidiser	50 mg/m <sup>3</sup>	Continuous indicative monitoring	Continuous (equipment should be checked at least daily to ensure it is functioning correctly)
Sulphur dioxide	From fuel burnt in combustion plant	When burning gas oil - 0.1 % wt/wt sulphur in fuel (from 1/01/ 2008) When burning	Certification by supplier using test method ASTM D86 distillation	Certificate to be provided for the fuel used and a new certificate is required on a change of fuel

# Appendix 4

Figure 4.1: Site location

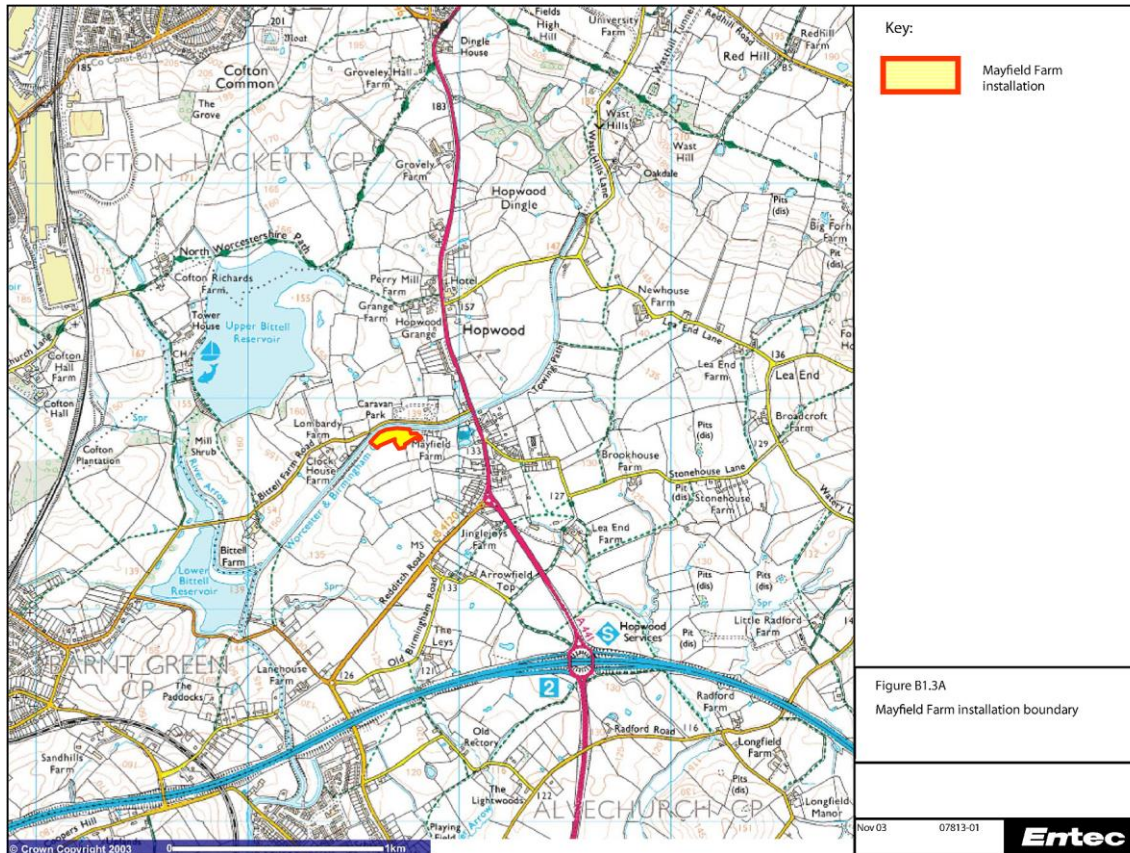
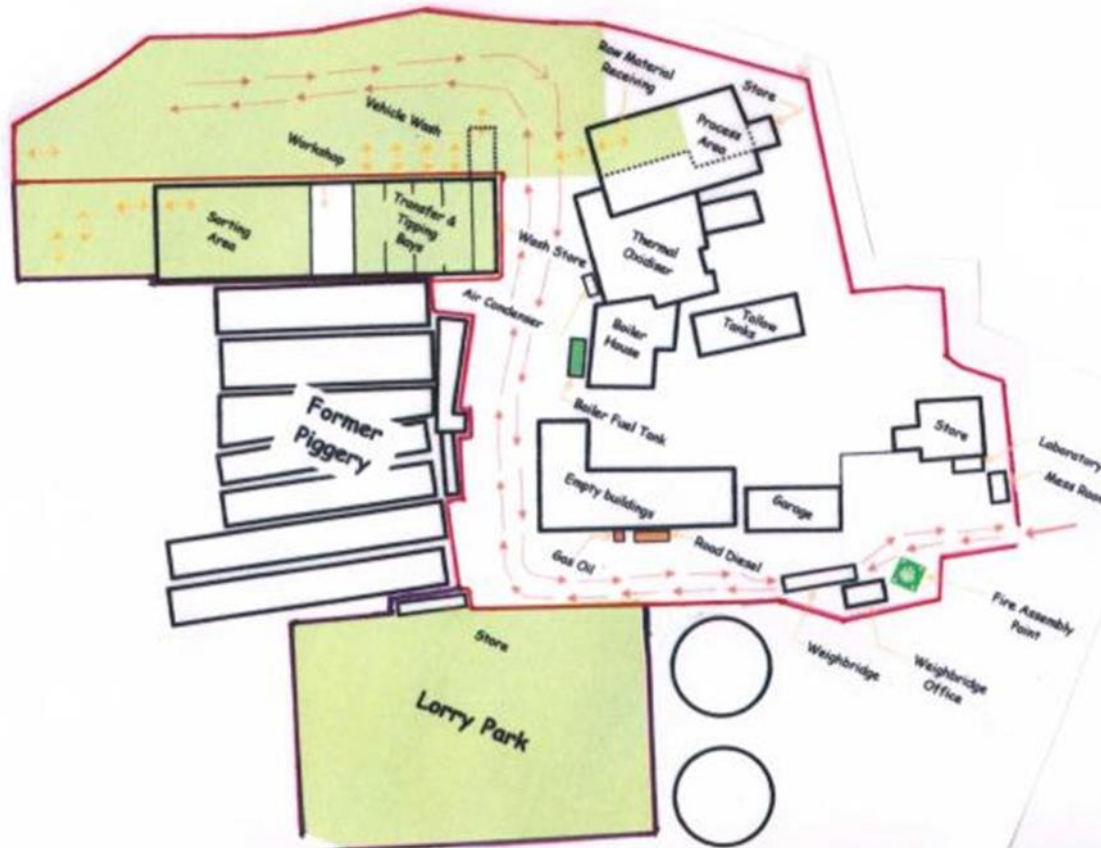




Figure 4.2: Site Plan and Boundary



- KEY**
- ↔ Reversing Vehicles
  - Traffic Routes
  - High Visibility Area
  - └ Operation Boundary

Figure 4.3: Layout of Processing and Storage Areas

