Pollution Prevention and Control Act 1999

Environmental Permitting (England and Wales) Regulations 2016

INSTALLATION PERMIT

REF – PPC 39/20

Permit to operate an installation for the manufacture of mushroom substrate

Tunnel Tech North Ltd
Newington Farm
Newington
Doncaster
DN10 6DJ

Permit Reference No. PPC 39/20

Contents

Section

Section One

Introductory Note
&
Description of Permitted Installation

Pollution Prevention and Control Act 1999
Environmental Permitting (England and Wales) Regulations 2016

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Introductory Note

Permit Holder:	Tunnel Tech North Ltd
Installation Address:	Newington Farm Newington Doncaster DN10 6DJ
Registered Address of Company:	Tunnel Tech North Limited The Old Airfield Winchester Street Leckford Stockbridge Hampshire SO20 6JF

Provenance	Date
Application for Authorisation	16th September 1992
Authorisation issued	24th September 1993
Permit Deemed application	1st April 2003
Permit Issued	10th April 2006
Permit Varied & Re-issued	29th September 2010
Permit Varied & Re-issued	6th June 2012
Permit Varied & Re-issued	6thth May 2020

Tunnel Tech North Ltd is hereby permitted by the Bassetlaw District Council to operate an installation for the manufacture of mushroom substrate under section 6.8 Part B(a) of Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2016 at the above Installation and within the installation boundary marked red on the attached plan reference PPC/39/PLAN and in accordance with the conditions detailed in Section 2 of this Permit.

Signed ……. Date……*6th May 2020*…..

Craig Taylor
Head of Neighbourhood Services

Process Description

1 General Description

1.1 The process operated at the installation is the production of compost substrate on which mushrooms will be grown. The process is prescribed for local authority pollution prevention and control (LAPPC) under section 6.8 Part B(a) of Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2010

1.2 The raw materials used in the process to make mushroom substrate are rape straw, wheat straw, chicken manure, horse manure, gypsum, urea and ammonium sulphate.

1.3 Straw is delivered and stored at the site in bales. The bales are stacked in the open air on the concrete yard surface. Chicken manure and horse manure is delivered to the site in sheeted tipper trucks. This is stored inside the old composting bunkers which have three concrete sides, a concrete roof and door.

1.4 The start of the process involves submersing the straw bales into a below ground-level concrete tank/sump of goody water. The tank is constructed of concrete and the straw bales remain in the goody water for up to two minutes, depending upon the quality and type of straw. This increases the moisture content of the straw which is crucial for starting the bacteriological composting process.

Goody water is also added to the blended materials at this same stage. Goody water is a blend of rain water, washing water and excess production water which is high in bacterial nutrients and nitrates. These nutrients are an essential part of activating the thermophilic composting process.

The bales are removed from the goody water sump and are placed on the mechanical conveyor line where they enter the mixing building. The mixing building air is extracted to the odour abatement system. The building is held under a slight negative pressure.

1.5 The conveyor system passes the bale along a set of blades which cuts the nylon ties holding the bale together. The cut bale then passes through the bale breaker which completely breaks and chops the bale down.

At this stage chicken manure, horse manure, gypsum and any inorganic supplements (such as ammonium sulphate) is added

onto the conveyor belt through a controlled amount via a feed hopper. Chicken or horse manure is fetched as required by loading shovel from the storage bunkers inside the mixing building and added directly onto the mechanical conveyor belt.

1.6 The mixed materials are transported out of the mixing building by a long-covered conveyor to the corner part of the yard area where the contents then drop onto another conveyor belt which elevates the materials up to the bunker tops. The building and conveyor are covered and extracted to the odour abatement system. This building also houses the refill hopper when a bunker is being emptied and returned back to another bunker as part of the phase 1 process.

1.7 Once the materials reach the top of the elevating conveyor they drop onto a transverse conveyor which runs along the top of the roof structure of the bunkers. The transverse conveyor is enclosed in a roof top building, which is extracted to the odour abatement system. The transverse conveyor is controlled so that it can be positioned over the appropriate composting bunker which requires filling.

2 Composting - (Phase 1)

2.1 The first phase of the composting processes takes place in the large concrete bunkers. The material is dropped through a hatch in the roof via the transverse conveyor where it falls onto another conveyor which runs inside the bunker. This conveyor is supported from the bunker roof. The conveyor moves steadily along the length of the bunker evenly distributing the blended straw materials to fill the bunker. This process takes approximately 4 hours and fills a bunker to a capacity of 1000 tonnes. Once full the hatch is replaced over the fill hole located in the top of the bunker roof. The extraction system is operating during the bunker filling process.

2.2 Air is forced through the composting materials via an aerated floor inside the bunker. The floor contains approximately 2000 small holes evenly spread over the area of the bunker. The forced air provides the oxygen necessary for the thermophilic composting process to take place. The temperature of the composting materials inside the bunker rises to 75+°C as the thermophilic process proceeds. The air blown through the bunker floor is carefully controlled to keep the compost at the optimum conditions. Temperature and oxygen probes are inserted into the bunkers which continually record data and send this information back to a computer which then constantly adjusts the air supply to the bunker.

Excess air is drawn from the bunker, captured and extracted through stainless steel duct work which runs at the rear of the

bunkers. The ductwork is connected to the odour abatement system

2.3 The phase one composting stage lasts between 10-14 days depending upon the season and the quality/type of straw being used. During the phase 1 composting stage each bunker will be fully emptied and placed in an empty adjacent bunker up to four times during the cycle. This operation is important to ensure that the composting material is homogeneously mixed and fully oxygenated.

The bunker is emptied using mechanical loading shovels and placed in the adjacent feed hopper. Additional water is added to the material as it moves along the conveyor belt to ensure the compost still remains moist enough for the thermophilic bacteriological process to proceed correctly. The feed hopper drops the compost on to the elevating conveyor belt which takes the compost back up to the bunker roof where it is discharged into a bunker as described in 1.7. Usually 2 bunkers are transferred into one single bunker as the composting process reduces the volume of the materials.

2.4 Whilst the materials are being unloaded and re-loading a second extract system serving the bunkers is operated. This second extract system utilises a higher powered fan unit and is used to try and keep a negative air pressure up to the perimeter of the main doors of the bunkers whilst the material is being removed using the mechanical loading shovel. The extracted air is ducted through a second run of stainless steel duct work which vents to atmosphere next to the first bunker extract ductwork. Whilst the bunker door is fully open a plastic curtain is used to minimise the release of air from the front top area of the bunker together with localised extraction to the front lip of the bunker.

3 Pasteurisation - (Phase 2)

3.1 After the phase one composting stage is complete the substrate will have become a homogeneous mass dark brown in colour which would have a mild earthy smell. It is removed from the concrete bunker by mechanical loading shovel onto the feed hopper which transports the substrate material along an elevated conveyor belt to the phase two stage.

The phase two part of the process involves pasteurisation of the compost. This takes place in the pasteurisation tunnels. The substrate is placed inside the long narrow pasteurisation tunnel via a cassette conveyor filler which is fed by the above described elevated conveyor. There are 9 pasteurisation tunnels.

3.2 The pasteurisation process requires the substrate to be kept between 57ºC -60ºC for a period of at least 10 hours. The substrate is kept for a further 4 days in the pasteurisation tunnel at a temperature between 40ºC -50ºC.

3.3 The control of the temperature is critical as the process is still thermophilic. Similar to the phase one the correct temperature is maintained by controlling the amount of air is drawn into the halls and extracted via small roof vents. This is done by a computer which constantly monitors temperatures, extraction fan speeds and moisture content. Should the temperature rise above the set pasteurisation level the substrate can very quickly spoil. The conditions of the substrate at this stage are highly aerobic.

3.4 Once the phase two stage is completed the substrate is cooled down and transferred through the clean hall into a sterilised tunnel prior to substrate colonisation.

4 Substrate colonisation - (Phase 3)

4.1 Phase three of the substrate production involves the substrate compost being fully colonised by mushroom mycelium. This involves the substrate to remain in the sterilised tunnel for a further 2-3 weeks as colonisation takes place. The temperature of the tunnels would be reduced to approximately 25 ºC during colonisation. The living mushroom mycelium growing on the substrate would be dispatched to growers immediately ready for casing and the start of the mushroom growing cycle.

5 Process Water

5.1 Two water tanks are used to store water for use in the process. The smaller of the two tanks contains a clean water supply for the second tank. Recycled water from the process is collected and stored in the dirty water tank (goody water). Clean water is added to the dirty water tank as required. The goody water is used to wet the straw at the raw material mixing stage. The main dirty water tank is fitted with aerators to oxygenate the Goody water to maintain aerobic conditions.

6 Principal sources of emissions

6.1 The principal sources of air emissions from the process are odours emanating from:

- The delivery, storage and mixing of raw materials
- Anaerobic conditions from the pre-mixing
- Anaerobic conditions during the phase 1 stage

- Odorous emissions during the unloading and re-loading operations when material is transferred to another bunker
- Storage and irrigation of process water

7 Abatement of emissions

7.1 In order to minimise emissions of odours associated with the composting process the raw material preparation and composting process is contained as much as possible within buildings.

Over recent years additional extraction systems have been installed along with new buildings for raw material storage, straw bale processing and wetting and bunker top containment.

In order to mitigate emissions further the yard area in front of the bunkers and adjacent to the re-load hopper will in the future be covered on all sides including a roof. Extraction and abatement will be installed to this new building which will enclose the bunker re-loading activities. Bunker reloading activities usually take approximately 2-3 hours in duration and can take place on a daily basis. Additional extraction and odour abatement systems would have to be installed to accommodate treating the volume of air from the new building.

Improvement condition 1.2 in table 2 of section 2(8) of this permit details the work required and the agreed timescale.

7.2 The air that is contained within a building, bunker or covered conveyor is extracted via stainless steel ductwork and treated by both chemical and biological treatment to remove odours from the air stream. The twin tower chemical scrubber utilises sulphuric acid to neutralise the alkali ammonia emissions. The biofilter uses a wood media for final odour removal of compounds such as hydrogen sulphide and VOC’s.

Section Two

Permit Conditions

Pollution Prevention and Control Act 1999
Environmental Permitting (England and Wales) Regulations 2016

Permit Reference No. PPC39/20

The conditions contained within this Permit are based upon Guidance Note PG6/30(13) Secretary of States Guidance for Mushroom Substrate Manufacture

The requirements of the conditions attached to this permit shall come into effect on the date indicated in the individual condition or if no date is indicated shall take effect forthwith.

1.0 Overarching Management Conditions

1.1 Without prejudice to the other conditions of this Permit, the Operator shall implement and maintain a management system, organisational structure and allocate resources that are sufficient to achieve compliance with the limits and conditions of this Permit.

1.2 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 installation, which is not regulated by any other condition of this Permit.

2.0 EMISSION LIMITS AND PROCESS CONTROLS

2.1 Emissions from the permitted installation, other than steam or condensed water vapour, shall be free from persistent mist and free from persistent fume.

2.2 The use of odour masking agents and counteractants (other than as arrestment equipment additives permitted by a specific permit condition) are not permitted.

2.3 The Operator shall implement effective engineering and odour abatement systems across the Phase 1 composting process, that will provide effective control of the off-site odour impact of the permitted activity to a level which has been demonstrated by the use of a suitable dispersion modelling to be capable of achieving 98th percentile hourly mean odour concentrations not greater than **2.5ou$_E$/m^3** at the nearest sensitive receptor. This includes totalling the emissions from the Site (including but not limited to the Phase 1 bunker emissions, raw material handling and storage, outdoor activities, and the goody water tank)

2.4 The process operator shall ensure that no offensive odour is emitted from the installation which is detected beyond the installation boundary as perceived by an officer of the regulating authority. This shall be achieved

by applying all necessary process controls, management control and odour arrestment provisions.

Pre-wet and Phase One

2.5 The water used in the below ground straw bale dunking tank/sump shall be monitored on a daily basis to ensure that the water quality is not anaerobic and is not causing any offensive odours. The inspection shall be recorded in the log book as required by condition 3.10 of this permit.

The immersion tank(s) shall, on a regular basis be fully emptied, cleaned and refilled with aerated water.

2.6 Wetted straw bales shall not be left to stand. Wetted bales shall be processed immediately.

2.7 The breaking up of the straw bales shall only take place inside the mixing building.

2.8 The incorporation of goody water and liquors into the substrate on the blending conveyor belt shall be achieved by heavy droplet spray bar fitted with splash guards.

2.9 All poultry or horse manure shall only be added to the pre-wet production conveyor by the two-purpose built steel hopper where the correct quantity of material can be satisfactorily controlled. This shall take place within the mixing building.

2.10 The mechanical mixing of horse manure and poultry manure on the main pre-wet production feed belt shall be undertaken so as not to cause spillage of quantities of these raw materials on the ground around the conveyor belt.

2.11 All liquor run off from mixing, blending and conveyor belts in the mixing building shall be captured and piped to the waste water drainage system.

2.12 All Phase One composting operations shall only take place in the purpose built enclosed concrete bunkers. Bunkers shall be fully enclosed on all four sides, including a roof and fitted with a suitable forced aeration and extraction system.

The extracted air from the phase one bunkers shall be directed through the chemical scrubber and bio filtration bed.

2.13 The raw material feed hatches located on the roof of each of the phase one concrete composting bunkers shall be kept covered/closed at all times when bunker loading is not taking place.

2.14 The bunker loading hatches and bunker top conveyor shall be housed inside a building/enclosure which is extracted to the odour abatement system.

Self-closing doors personnel doors shall be fitted to the bunker top enclosure.

2.15 The forced aeration of the concrete bunkers shall be controlled by a computerised monitoring and control system which is able to monitor and adjust the flow of air through the floor aeration system and the amount of extraction of polluted air from inside the bunker. If there is any fault on the aeration system and audible/visual alarm shall activate.

2.16 Each bunker shall be continuously monitored and recorded for oxygen concentration and temperature and this data shall be fed to the computer-controlled aeration system to ensure that optimum composting conditions are maintained inside the bunker ensuring that the phase one process always remains aerobic.

2.17 The level of oxygen within the substrate whilst in the phase 1 bunker shall not drop below 3% at any time. If the oxygen content of the bunker drops below 2.5% a visual/audible alarm shall activate to warn of potential anaerobic conditions occurring. The temperature inside the bunker shall be monitored and recorded too achieve a temperature of +75°C during the phase one stage.

Operating conditions shall be adjusted immediately to ensure the above normal composting parameters are restored immediately.

2.18 The extraction system capturing the emissions from the phase one concrete bunkers shall be continuously monitored and controlled to ensure that the gases produced by the composting process are adequately extracted so as to maintain optimum conditions inside the bunker. If there is a failure of the extraction system an audible/visual alarm shall activate.

2.19 The second more powerful bunker extraction system shall be operated to capture emissions from inside a bunker when it is undergoing the physical process of removal and re-loading of substrate to another bunker.

2.20 Additional extraction shall be operated to the top front lip part of the bunker. The extracted air shall be vented to the odour abatement system

2.21 A polypropylene curtain shall be hung from the bunker ceiling, just inside the bunker, to cover at least the upper third entrance area so assisting in reducing the release of fugitive emissions from the front of the bunker during the un loading and re-loading of compost.

2.22 The moisture content of the pre-wet and phase one substrate shall be regularly checked and recorded with a continuous automated moisture probe to ensure that the substrate does not become excessively wet. An

automated moisture monitoring and volume control water dosing system for the pre-wet and phase one stages of the process.

3.0 Raw Material Selection and storage

3.1 Maintaining the quality of incoming raw materials will assist to reduce the potential for release of offensive odours during their delivery and storage. The following points shall be considered when selecting raw materials for the process.

- Good quality, long straw shall be utilised
- Where possible poultry manure is substituted with other locally available source of nitrogen e.g. urea, brewers grains, local sourced horse manure or additional inorganic supplements.

3.2 All potentially malodorous raw materials such as poultry manure and horse manure shall be delivered to the site only in sheeted or covered vehicles. If these materials are excessively wet and likely to give rise to excessive odours the operator shall reject the materials and send the vehicle back to the supplier.

3.3 All potentially malodorous raw materials such as poultry manure and horse manure shall be stored inside the purpose-built mixing /storage building. The building shall be kept under constant extraction to the odour abatement system.

3.4 The main roller shutter door of the raw material store shall remain closed at all times, accept to allow vehicle entry and exit for a delivery. The door shall be closed once a vehicle is inside whilst the delivery takes place.

3.5 All personnel access doors to the raw material storage building shall be fitted with self-closers.

4.0 Goody Water and Process Water Control

4.1 All potentially malodorous liquids, such as goody water, shall be stored in tanks. All tanks shall be fully lidded and checked on a monthly basis for any signs of leakage or damage. Tanks containing potentially malodourous liquids shall be back vented to the extraction and odour abatement plant.

4.2 Collected rainwater from building roofs and yard surfaces shall be stored separately to the goody water until needed to top up the goody water. The content of all surface water storage tanks shall be checked to ensure that they always remain aerobic and not a source of offensive odours.

4.3 The drainage system for the site shall be designed so as to separate the goody water and process water from surface water sources such as building roofs and yard surfaces

4.4 All pipe work and channelling which carries leachate from the pre-wet and phase one stage to storage shall be totally enclosed and maintained free from any leaks. All such pipe work and channelling shall be able to be fully cleaned and flushed with clean water.

4.5 Liquid run off from any hoppers, conveyor belts and belt scrapers shall be effectively collected and piped to the drainage system so as to prevent the run off spilling over yard areas.

4.6 The Operator shall continuously monitor the Goody Water Tank(for the redox potential limits as detailed in Table 1.1. An audible alarm shall sound when the redox potential exceeds the limit value stated in Table 1.1. The alarm shall be investigated immediately and corrective action taken to ensure the correct redox potential is restored to the tank.

4.7 All incidences of alarms or equipment malfunctions shall be recorded in a log book together with details of the corrective action taken. The records shall be stored by electronic or paper means for at least two years and shall be available for inspection at the request of the local enforcing officer.

4.8 The Goody Water tanks shall be tightly lidded and back vented to the extraction system and odour abatement equipment.

4.9 Submersed pipe work shall be used for aeration in the tanks. The surface of the Goody Water Tank shall not be agitated.

4.10 Solids shall not be allowed to build up in the Goody Water Tanks to more than a dry matter content of 8% w/w, solids shall be drawn off regularly.

4.11 Sludge from the Goody Water Tank and other malodorous waste materials shall be held in enclosed storage pending removal from site, or preferably drawn straight into road tankers ready for removal from site.

4.12 Fixed draw-off points shall be provided to liquid storage facilities to facilitate the drawing-off of accumulated sludge without the need to open the storage container

4.13 All sumps and catchment chambers on site shall be regular cleaned and straw debris removed.

5.0 Extraction and Odour Abatement Systems

5.1 All extracted air from the composting process (bunkers and buildings) and associated raw material handling and processing activities shall be directed to suitable odour abatement plant consisting of chemical and biological treatment.

5.2 The extraction system shall be designed and operated, such that its capacity and operation is effective for the necessary extraction of odorous emissions from the various process buildings, conveyors and associated plant.

5.3 The extraction system shall be reviewed and tested every two years that it provides adequate extraction rates and volumes to meet the demands of the composting process.

5.4 The two stage chemical scrubbing units shall be fitted with automatic reagent (acid) dosing equipment. The liquid circulation and scrubber efficiency shall be monitored by suitable instruments; for example pH meters and variable orifice meters to give continuous indication of effective operation and dosing of acid.

Audible alarms shall sound if the scrubber liquid drops too low or if there is a failure of the circulation pump(s) to the scrubbing towers.

The scrubber shall be checked at least once per shift for correct operation and that there are no leaks. The check shall be recorded in a daily plant/equipment check list.

5.5 The spray jets on the chemical scrubber shall be cleaned regularly as necessary to prevent them blocking. The residual scrubbing liquor shall also be drained and replaced periodically. This work shall only be completed when there are minimal composting operation staking place at the time.

5.6 The back pressure on the scrubber towers shall be constantly measured. Should the pressure either build or drop significantly it shall be investigated immediately if there are any blockages causing high pressure or leaks causing a drop of pressure.

5.7 The installation shall always keep an adequate supply of sulphuric acid within the acid storage tank. The tank shall be located within a bunded area and be fitted with high level alarms to prevent overfilling.

5.8 Spent liqueur from the scrubbing towers shall be pumped back into the composting process as a suitable source of ammonium sulphate nutrient.

5.9 The surface of the wood biofilter shall be inspected at least once per week (when the process is in operation) to identify any defects or voids in the filter material and whether there are any leaks around the edges and associated ductwork serving the biofilter.

5.10 A suitable irrigation system utilising mist spraying of water shall be deployed over the biofilter media to provide immediate and adequate coverage of water to the surface of the biological filter when any areas of low moisture content are identified.

5.11 At no time shall heavy machinery or equipment be taken on to the surface of the bed. General access to the surface of the bed shall be restricted at all times.

5.12 On an annual basis an audit shall be undertaken of the bed taking into account the structure, pipework and conditions of the filter media.

The filter media shall be replenished at least every twelve months.

6.0 Monitoring, sampling, investigation and measurement of emissions

6.1 Monitoring of emissions shall be carried out in accordance with the following conditions listed in the table 1.1 below:-

Table 1.1

Source	Substances	Emission Limits/ provisions	Type of Monitoring required	Monitoring Frequency
Emissions from contained and fugitive sources.	Odour	Aim that any location at or beyond the site boundary is free from offensive odour.	Determination by olfactory assessment.	Daily (in accordance with condition 3.3
Prewet and phase 1 compost stage	Oxygen Temperature	Oxygen content of substrate is not to fall below 3% Temperature to be monitored for +75°C	Oxygen probes Temperature probes	Continuous except during turning (un loading/loading of bunkers) Continuous except during turning
Goody water tank And other water tanks liable to go anaerobic	Redox potential of water	-280Vm Minimum redox potential	Redox probes	Continuous and in accordance with condition 5.6

6.2 An electronic data logging weather station shall be installed at the site. The station shall provide real time information for at least the following parameters for wind direction, wind speed and temperature.

The records shall be stored by electronic means for at least two years and shall be available for inspection at the request of the local enforcing officer.

6.3 An assessment of the potential for odour impact beyond the installation boundary shall be undertaken at least four times per day and shall take account of wind direction, wind speed, weather conditions and potential receptors.

Assessments shall be made over the 24hour day period and shall include observations between the hours of 7pm and 7am and at the weekends. The assessments shall be made downwind of the locations marked on the ordinance survey map detailed in appendix one of this permit.

The assessment shall be reviewed by the operator in response to any significant changes in weather conditions or process conditions.

6.4 Each olfactory assessment shall consist of a three minute assessment of odours and be carried out at the locations required by condition 6.3. The assessment shall record and detail the following parameters:-

- Date and time
- Location
- Wind direction and wind speed
- Prevailing weather conditions
- Installation operating conditions at the time
- Name of person undertaking the assessment
- Nature and strength of any odours detected

6.5 The operator shall respond to incidents of odours being detected during the routine olfactory assessment requirements or during any other site inspection. In cases where odours are detected beyond the site boundary the operator shall undertake an assessment of process operations and odour controls to ascertain the cause of the odours.

6.6 Where odour emissions are detected at the installation and also beyond the site boundary and the odours may have an effect upon the local community or give rise to potential complaints the odour response procedure shall be implemented immediately. The procedure shall identify:-

- The probable cause of the odour
- Corrective action to be taken immediately to reduce and eliminate the odour
- Notify the local enforcing authority

- Corrective actions to control and reduce the odours
- Staff responsible for identifying the odour or receiving the complaints and the actions they have taken

Bassetlaw District Council shall be notified as soon as practicable (within one hour, or by 9:00am the next day working day if out of normal office hours) with details of the nature of the problem, the action taken so far and the proposed action to deal with the situation. If the odour incident is at a weekend and there is the potential for a significant effect upon the local community the operator shall notify the Council's out of hours service.

A record of odour incidences for each month shall be kept and emailed to Bassetlaw District Council at the beginning of each month

6.7 The Local enforcing Authority shall be notified immediately if there is any malfunction or breakdown of the process and associated machinery etc which could lead to emissions of odour beyond the installation boundary which may have an effect upon the local community.

6.8 In the case of abnormal emissions or a malfunction/breakdown leading to abnormal odour emissions to air, the operator shall:-

- Investigate and undertake remedial action immediately
- Adjust the process or activity to minimise those emissions
- Where abnormal operating conditions leading to offensive odour beyond the installation boundary are identified and may persist for more than 24 hours the local authority shall be notified immediately and consideration be given to suspending compost production until the sources of the odour is identified and remedial action taken.

6.9 Where there is a requirement in any condition contained in this permit to notify Bassetlaw District Council the following methods shall be used:-

- By telephone to 01909 533533 (during office hours of 9:00am to 5:00pm, Mon to Fri)
- By email to andrea.stewart@bassetlaw.gov.uk

In the event of a breakdown or circumstances where there may be a significant impact on the local community notification shall be made by telephone immediately.

6.10 A logbook shall be established and maintained which contains a record of all olfactory observations made in accordance with conditions 6.3, 6.4, 6.5, and 6.6. The logbook shall be kept available for inspection by an authorised officer from the regulating authority at the premises occupied

by the Company, and the records shall be retained for at least two years. The log may be paper based or electronic

6.11 A record of all complaints received by the operator regarding odours emanating from the installation shall be recorded by the operator along with details of the investigation into the source and corrective action taken to remedy the problem. The records shall be available for inspection at any time by the regulating authority.

6.12 Process buildings shall be tested for integrity at least once a year by the use of smoke generators/flares in order to detect leakage from roof apexes, valleys and ridges. Remedial actions to be taken to correct any defects so found shall be notified to the local authority. Self-closing personnel doors shall be provided to buildings where it is considered odour could be emitted.

6.13 The operator shall conduct annual a site odour survey of all activities to ensure the site odour limit of **2.5ou$_E$/m^3** is achieved. The survey shall be completed by appropriate odour sampling/survey/assessment specialists. The report shall be presented to Bassetlaw District Council before 1st April each year.

7.0 Maintenance

7.1 All plant and equipment used in operating the Permitted Installation, the failure of which could lead to an adverse impact on the environment, shall be maintained in good condition.

7.2 A preventative maintenance programme shall be implemented. Written records of inspections and maintenance shall be kept at the installation for a minimum period of two years and made available for inspection to Bassetlaw District Council on request.

7.3 Any malfunction or breakdown leading to abnormal emissions shall be dealt with promptly and process operations adjusted until normal operations can be restored. All such malfunctions shall be recorded in the logbook.

If there is the potential for emissions being detected off-site Bassetlaw District Council shall be notified within 2 hours of the breakdown/malfunction happening.

7.4 Effective preventative maintenance shall be employed on all aspects of the process including all plant, buildings and the equipment concerned with the control of emissions to air In particular:

- a written maintenance programme shall be implemented
- a record of such maintenance shall be made available for inspection.
- all external pipework used for cleaning water, irrigation water and process liquid transfer shall be protected against frost.

7.5 Continuous monitoring probes such as those used for measuring temperature, oxygen, redox, Ph and moisture shall be checked regularly as part of the site preventative maintenance programme. Continuous monitoring probes shall be calibrated at least annual and calibration certificates retained for at least 3 years.

8.0 General Operations

8.1 The Permitted Installation shall be supervised by staff who are suitably trained and fully conversant with the requirements of this Permit. A copy of the Permit shall be made available to all staff that have responsibilities under any of the conditions and a copy shall be available at all times at the installation.

8.2 All staff shall be fully conversant with those aspects of the Permit conditions which are relevant to their duties and shall be provided with adequate professional technical development and training, and written operating instructions to enable them to carry out their duties.

8.3 Staff at all levels need the necessary training and instruction in their duties relating to control of the process and emissions to air. In order to minimise risk of emissions, particular emphasis shall be given to control procedures during start-up, shut down, breakdowns and any abnormal conditions

8.4 Training of all staff with responsibility for operating the process shall include:

- awareness of their responsibilities under the permit;
- minimising emissions on start up and shut down
- action to minimise emissions during abnormal conditions

8.5 The Operator shall 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. These documents should be made available to Bassetlaw District Council on request.

8.6 A senior manager shall be nominated to act on behalf of the Operator, who will be responsible for ensuring that the process can fully comply with the conditions of this permit. That person shall be responsible for all aspects of liaison with Bassetlaw District Council and where necessary with the general public over odour issues. The responsible person shall be named in the logbook together with arrangements for deputising in the event of absence of the nominated senior manager

8.7 Complete and immediate access to the premises shall be granted to a duly authorised officer of the Local Authority upon request.

8.8 If there is any intention to change any aspect of the prescribed installation from the description contained in the beginning of this permit, or any other

aspect which may affect the substances or concentration or amount of substances being emitted to atmosphere, the operator shall notify Bassetlaw District Council of the proposed changes at least 4 weeks in advance before the changes take place.

8.9 The Operator shall give written notification as soon as practicable (and at least 30 days) prior to any of the following:

- permanent cessation of the operation of part or all of the Permitted installation;
- cessation of operation of part or all of the Permitted Installation for a period likely to exceed 1 year; and
- resumption of the operation of part or all of the Permitted Installation after a cessation.

8.9 The Operator shall notify the following matters to Bassetlaw District Council in writing within 14 days of their occurrence:

- any change in the Operator's trading name, registered name or registered office address;
- any change to particulars of the Operator's ultimate holding company (including details of an ultimate holding company where the operator has become a subsidiary);
- any steps taken with a view to the Operator going into administration, entering into a company voluntary agreement or being wound up.

8.10 The Where possible the process shall operate and adhere to the provisions of an appropriate Environmental Management System such as ISO 14001

8.11 The operator shall produce a written odour management plan for the installation’s operations. The plan shall be reviewed every two years and submitted to Bassetlaw District Council.

8.12 A copy of this permit shall be located on site such that all operatives involved in the process have unrestricted access to it.

9.0 Improvement Programme

9.1 The Operator shall complete the requirements specified in Table 2 by the date specified in that table, and shall send written notification of the date of completion of each requirement to the Local Regulatory Authority, at the Reporting Address, within 14 days of the completion of each such requirement.

Improvement condition	Requirement	Date
1.1	The operator shall construct a building to enclose the yard area in front of the composting bunkers such that the re-loading activities would take place inside an enclosed building under extraction.	As soon as is reasonably practicable and in any event by 30th November 2020
1.2	The operator shall install suitable and appropriate odour abatement plant to treat the odorous air emissions extracted from the new building.	As soon as is reasonably practicable and in any event by 30th November 2020
1.3	The operator shall update appropriate odour reports associated with the assessment of odours for the new building.	As soon as is reasonably practicable and in any event by 30th November 2020

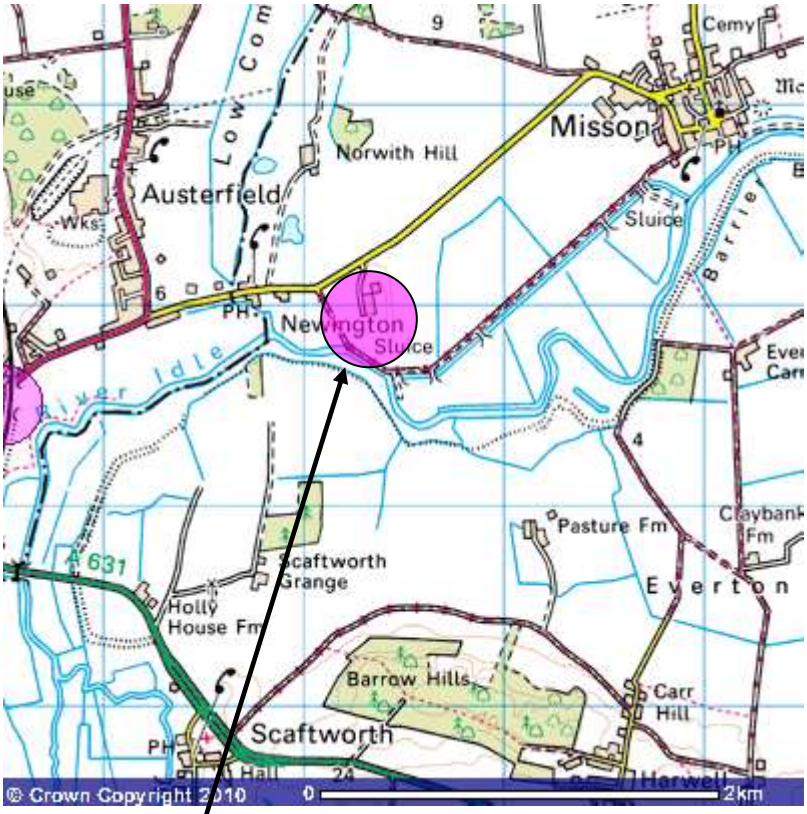
Note: This permit has been issued during a period of "Lockdown" as directed by the Government in response to the COVID 19 Pandemic. If the works detailed in the table above are unable to be completed within this timescale due to COVID reasons, for example social distancing/worker availability/material availability, evidence should be provided to Bassetlaw District Council two months prior to the completion date.

Bassetlaw District Council will reasonably consider submissions made due to COVID reasons and make a determination of a later date in accordance with that evidence.

Section Three

Location of Permitted Installation and Site Plan

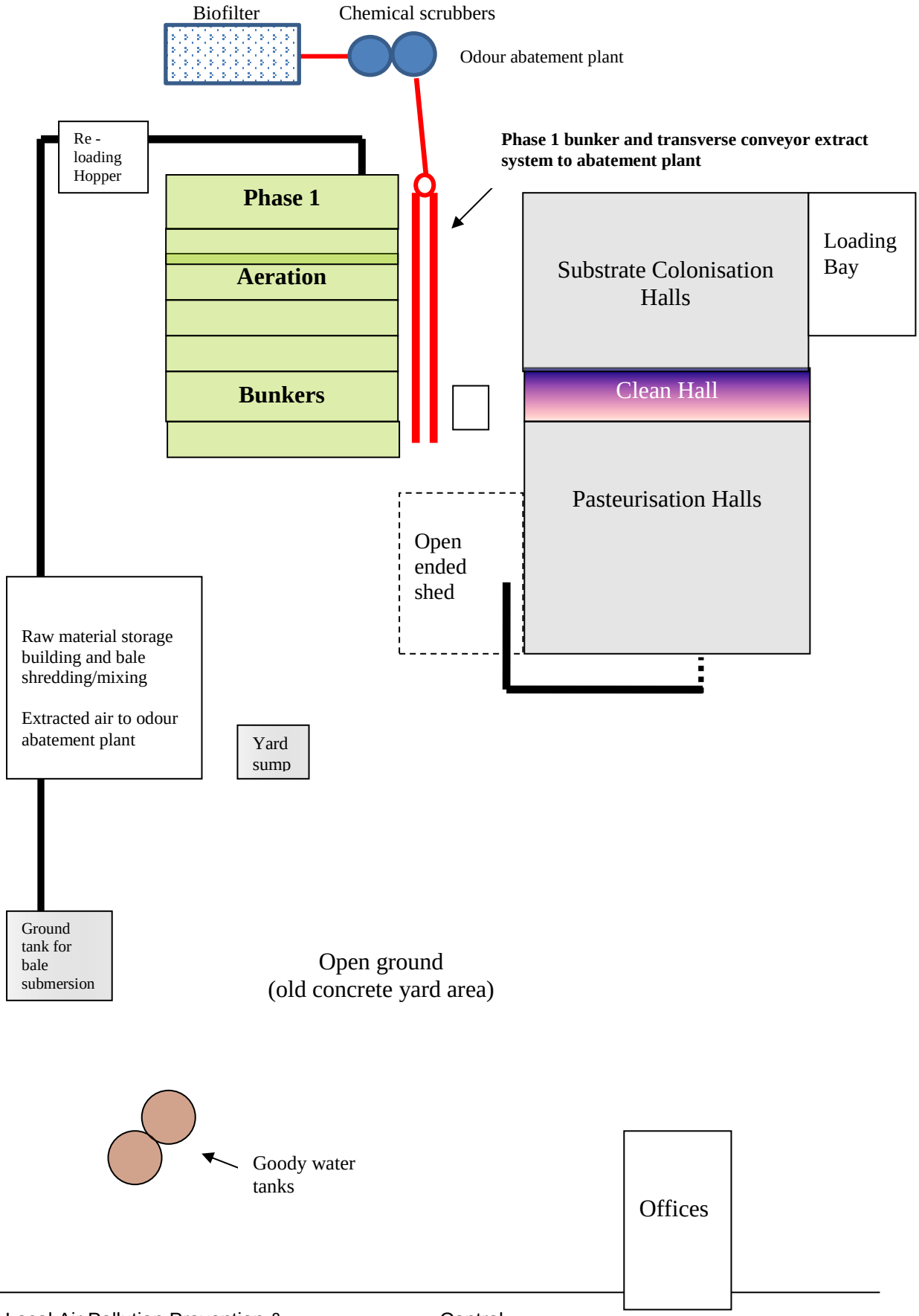
Location of Permitted Installation



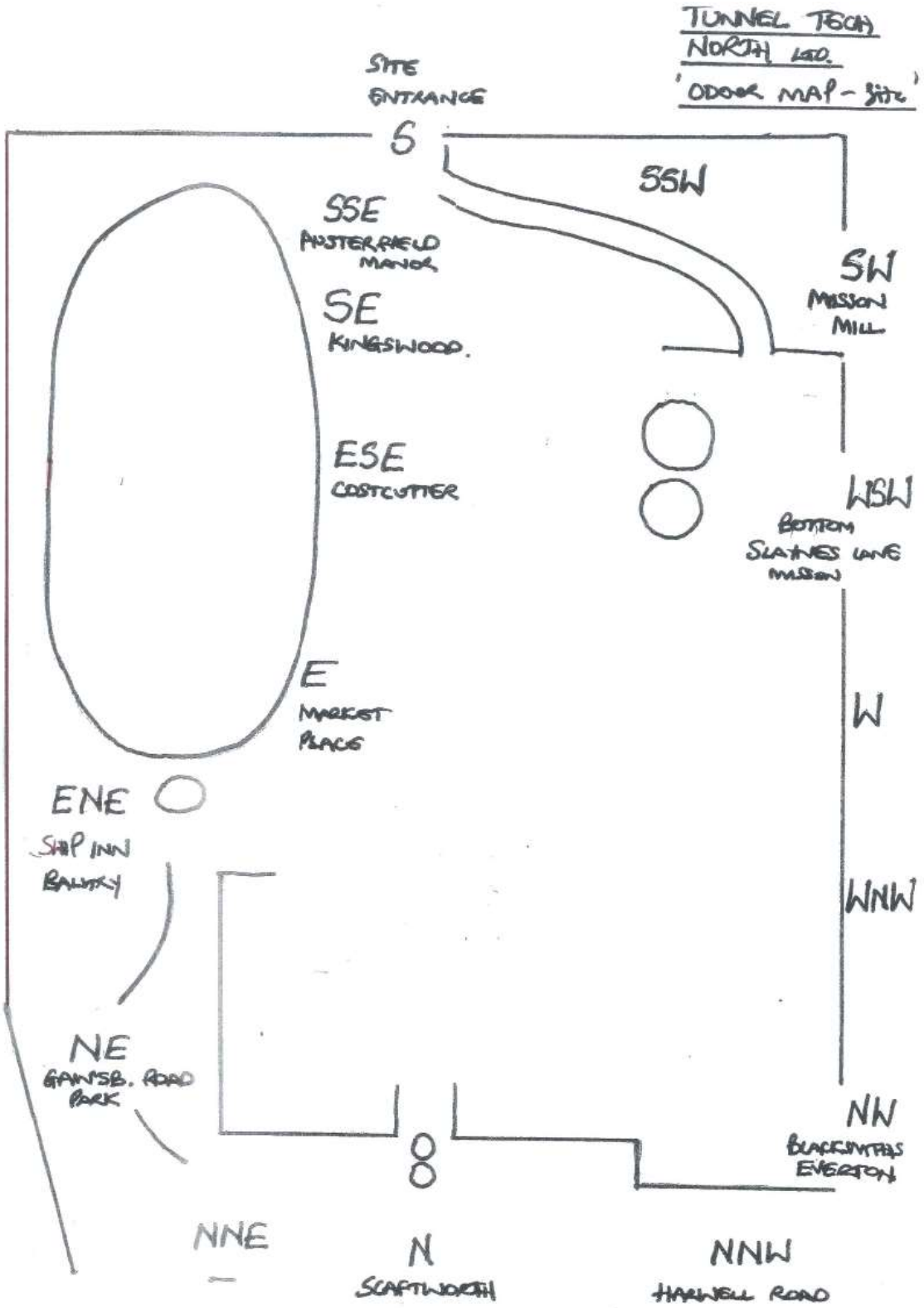
Tunnel Tech North Ltd
Newington Farm
Newington
Doncaster
DN10 6DJ

PPC/36/PLAN —— **Installation Boundary**

Site Schematic



Appendix One – Odour assessment locations



Section Four

Explanatory Notes
&
Appeals Procedure

Bassetlaw District Council
The Pollution Prevention Control Act 1999
The Environmental Permitting (England & Wales) Regulations 2016

1. RESIDUAL BAT CONDITION (BEST AVAILABLE TECHNIQUES)

You should note that a fundamental principle of the LAPPC regime is the application controlling pollution by using "Best Available Techniques". The BAT approach requires that the cost of applying techniques is not excessive in relation to the environmental protection they provide.

Article 2(11) of the IPPC Directive defines – Best Available Techniques as:-

'Best available techniques' *shall mean the most effective and advanced stage in the development of activities and their methods of operation which indicate the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole.*

- **'techniques'** shall include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned,

- **'available'** techniques shall mean those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator,

'best' shall mean most effective in achieving a high general level of protection of the environment as a whole.

2. STATUTORY REQUIREMENTS

This Permit is issued under regulation 13 of the EPR Regs and does not detract from any of the following statutory requirements where applicable:-

(a) The requirement to obtain Planning Permission for the installation and any new construction.
(b) The requirement to obtain discharge consent from the Environment agency.
(c) The requirement to obtain Building Regulation approval for any construction work.
(d) The requirement of a Waste Disposal Licence.
(e) The requirement to comply with the Health and Safety at Work etc Act 1974

3. PUBLIC REGISTER

The Council is required by regulation 47 to maintain a Public Register containing information on all LAPPC installations and mobile plant. The register is available for inspection by the public free of charge during office hours (Monday to Friday 9.00am to 5.00pm) at-

Bassetlaw District Council
Queens Buildings
Potter Street

Worksop
Notts
S80 2AH

Subject to exclusions of commercially confidential information and information affecting national security, registers will contain the following:

a. Applications for a permit;
b. Notices asking for information and responses to such;
c. Advertisements and representations in response to such (unless requested not to by
the person responding)
d. In the case of c) above, a statement to the effect that representations were made but have been omitted – must not identify the person making the representation;
e. Statutory consultee responses to applications or applications for variations;
f. Permits;
g. Notifications of changes in the operation of installations;
h. Applications for variations, transfers or surrenders of permits;
i. Variations, transfers and surrenders granted;
j. Revocations;
k. Enforcement or suspension notices;
l. Notices withdrawing enforcement and suspension notices;
m. notice of an appeal including the grounds of the appeal, relevant correspondence between the appellant and the regulator, and the decision/notice which is the subject of the appeal;
n. Representations in response to appeal (unless requested not to by the person
responding);
o. In the case of n) above, a statement to the effect that representation were made but have been omitted – must not identify the person making the representations;
p. The appeal decision and any accompanying report;
q. Convictions, formal cautions; to include the name of the person, date of conviction/caution, and (where appropriate) penalty and name of court. This requirement does not override the Rehabilitation of Offenders Act 1974 regarding spent conditions, and authorities must take care to remove relevant entries at the appropriate time;
r. Monitoring data obtained by the authority from its own monitoring, or sent to the authority on accordance with a permit condition or regulation 60(2) notice;
s. If any monitoring information is omitted because it is commercially confidential, the authority must put a statement on the register indicating whether relevant permit conditions are being complied with, based on the withheld information;

4. Commercial Confidentiality

An operator may request certain information to remain confidential i.e. not be placed on the public register. The operator must request the exclusion from the public register of commercially confidential information at the time of supply of the information requested by this notice or any other notice. The operator should provide clear justification for each item wishing to be kept from the register. The amount of information excluded from the

register should be kept to the minimum necessary to safeguard the operator's commercial advantage
The general principle is that information should be freely available to the public. Information that maybe considered commercially confidential is that which if it "were being contained within the register would prejudice to an unreasonable degree the commercial interests of an individual or any other person" (regulation 51(2) of the 2010 Regulations).
Local authorities will also take into account whether the information at issue could be obtained or inferred from other publicly accessible sources.
The local authority will determine this request within 28 days of the date of such an application and will issue a Determination Notice detailing their decision. The notice may specify a time period over which the information is to remain commercially confidential (if not specified, it will be four years beginning with the date of the determination). The operator may appeal to the Secretary of State within 21 days of the notification of the decision.

If the application is granted the local authority will place a statement on the public register stating that certain information has been withheld and stating the reasons why, plus whether this information is relevant to a permit condition, and whether the permit condition has been complied with.

Further guidance on commercial confidentiality can be found in Chapter 8 of the LA-IPPC and LAPPC manual.

5. National Security

Information may be excluded from the public register on the grounds of National Security (Regulation 48(1). If it is considered that the inclusion of information on a public register is contrary to the interests of national security, the operator may apply to the Secretary of State, specifying the information and indicating the apparent nature of risk to national security. The operator must inform the local authority of such an application, who will not include the information on the public register until the Secretary of State has decided the matter.

6. PROCESS CHANGES

You are required to notify the Council of any proposed change in operation at least 14 days before making the change. This must be in writing and must contain a full description of the proposed change in operation and the likely consequences.
If the change could result in the breach of the existing permit conditions or is likely to require the variation of permit conditions then you must apply in writing under regulation 20(1), or involves a SUBSTANTIAL CHANGE to the installation you will be required to submit an application, pay the relevant fee and advertise the application accordingly. You should notify the Council 28 days before undertaking such changes in the installation operation. You may serve a Notice on the Council requesting that they determine whether any change, which is proposed, would constitute a substantial change before you proceed with application.

7. APPEALS

Under regulation 31(1)c of the 2010 Regulations operators have the right of appeal to the Secretary of State against the conditions attached to their permit. The right to appeal does not The rights to appeal do not apply where the decision or notice implements a

direction given by the Secretary of State or Welsh Ministers. There is also no right of appeal if a revocation notice has been served for non-payment of subsistence fees (EP regulation 31(3)).

Appeals against a variation notices, enforcement notices and suspension notices do not have the effect of suspending the operation of the notice. Appeals do not have the effect of suspending permit conditions, or any of the mentioned notices. However, appeals against revocation notices suspend the operation of the notices coming into effect until the appeal is decided or withdrawn.

Notice of appeal against the conditions attached to the permit must be given within six months of the date of the notice, which is the subject matter or the appeal. The Secretary of State may in a particular case allow notice of appeal to be given after the expiry of this period, but would only do so in the most compelling circumstances.

How to appeal
There are no forms or charges for appealing. However, for an appeal to be valid, appellants (the person/operator making the appeal) are legally required to provide (see Schedule 6 of the 2010 Regulations, paragraph (2)2):

- written notice of the appeal;
- a statement of the grounds of appeal;
- a statement indicating whether the appellant wishes the appeal to be dealt with by written representations procedure or a hearing - a hearing must be held if either the appellant or enforcing authority requests this, or if the Planning Inspector or the Secretary of State decides to hold one.
- (appellants must copy the above three items to the local authority when the appeal is made)
- a copy of any relevant application;
- a copy of any relevant permit;
- a copy of any relevant correspondence between the appellant and the regulator; and
- a copy of any decision or notice, which is the subject matter of the appeal.

Appellants should state whether any of the information enclosed with the appeal has been the subject of a successful application for commercial confidentiality under regulation 49 of the 2007 Regulations, and provide relevant details. Unless such information is provided all documents submitted will be open to inspection. Further guidance on commercial confidentiality can be found in chapter 8 of the LA-IPPC and LAPPC manual.

Where to send your appeal documents:
Appeals should be despatched on the day they are dated, and addressed to:

The Planning Inspectorate
Environmental Appeals Administration
Room 4/04 - Kite Wing
Temple Quay House
2 The Square
Temple Quay
Bristol BS1 6PN

On receipt of an appeal and during the appeal process the main parties will be informed about the next steps, and will also normally be provided with additional copies of each other's representations.
To withdraw an appeal – which may be done at any time - the appellant must notify the Planning Inspectorate in writing and copy the notification to the local authority who must in turn notify anyone with an interest in the appeal.

Review of Permit

Regulation 34 of the Regulations imposes an obligation on the regulator to periodically review environmental permits. The guidance note for this sector suggests that a period no less than once every six years, unless otherwise directed by the Secretary of State.

Variation of Conditions of Permit

By Regulator

Regulation 20 (1) and Part 1 of Schedule 5 of the Regulations state that the regulator may vary the permit if it appears to the regulator that the permit requires conditions to be included which are different from the subsisting conditions. This is carried out by serving a variation notice. The notice shall specify the nature of the variation, the date or dates on which the variations are to take effect.

By permit holder

Regulation 20(1) and Part 1 of Schedule 5 of the Regulations states that a person carrying on a permitted activity may apply to the regulator for the variation of conditions in the permit. The regulator shall notify the operator that the application is duly made and vary the conditions by means of a variation notice.

A variation notice issued under regulation 20 may attract a fee as set out in the current charging scheme.

Transfer of Permit

Regulation 21(1) of the Regulations states that the regulator may transfer an environmental permit in whole or in part from the operator to another person on the joint application of the operator and that other person. Part 1 of Schedule 5 of the regulations applies in relation to the transfer of a permit in whole or in part. If an enforcement notice is in force in respect of an environmental permit and that environmental permit is transferred to another person either in whole or in part the duty to comply with the enforcement notice is transferred to the other person to the extent that it relates to the permit or part transferred.

Surrender of Permit

Regulation 24 of the Regulations applies to the operations of a Part B installation or mobile plant or an activity falling within Part A (2) of section 5.1 of Part 2 of Schedule 1 of the regulations. An operator may surrender an environmental permit to which this regulation applies, in whole or in part, by notifying the regulator of the surrender.

A notification must:-

- be made on the form provided by the regulator
- include such information as specified on the form; and
- specify the date on which the surrender is to take place, which must not be less than 20 working days from the date on which the notification is given

In the case of a partial surrender where the regulator considers it necessary to vary permit conditions taking into account that surrender the regulator shall serve notice on the operator stating:-

- the regulators views under regulation 24 (5)
- the variation; and
- the date the variation takes effect.
- if the date of variation is later than that of the partial surrender then the partial surrender and variation take effect on the later date.

Where regulation 24 does not apply then regulation 25 comes into force together with Part 1 of Schedule 5 of the Regulations in relation to an application to surrender an environmental permit in whole or in part.

Revocation of Permit

Regulation 22 of the Regulations states that the regulator may revoke a permit, in whole or in part. If the regulator revokes a permit in part they may vary the permit conditions to the extent that they consider necessary to take account of the revocation.

Where the regulator decides to revoke an environmental permit they must serve notice on the operator specifying -.

(a) the reasons for the revocation
(b) in the case of a partial revocation –
1. the extent to which the environmental permit is being revoked;
2. any variation to the conditions of the environmental permit; and
(c) the date on which the revocation will take place, which must not be less than 20 working days from the date on which the notice is served.

Unless the regulator withdraws the revocation notice, an environmental permit ceases to have effect on the date specified in the notice; in the case of a revocation in whole, entirely, in case of partial revocation, to the extent of the part revoked.

If a consolidated permit is issued in the case of partial revocations a notice of variation shall be served at the same time specifying any variation to the permit conditions. Only the variations specified are subject to the right of appeal in regulation 31(1) (b).

8. FEES

In accordance with regulation 65(1)c of the EPR Regs, the holder of a permit is required to pay a fee for the subsistence of the Permit. This fee is payable annually on 1st April. You are advised that under the provisions of regulation 65(5) of the PPC Regs, if you fail to pay the fee due promptly, the Council may revoke the Permit.

9. SECRETARY OF STATES GUIDANCE

This permit is covered by the relevant Secretary of State's Guidance:

PG Secretary of State's Guidance **http://www.defra.gov.uk/environment/ppc/localauth/pubs/guidance/notes/pgnotes/index.htm**
Pollution Prevention and Control Act 1999 **http://www.opsi.gov.uk/acts/acts1999/ukpga_19990024_en_1**
The Environmental Permitting (England and Wales) Regulations 2016 **http://www.opsi.gov.uk/si/si2010/uksi_20103538_en_1**
General Guidance Manual on Policy and Procedures for A2 and B Installations **http://www.defra.gov.uk/environment/ppc/regs/index.htm**

9. Reporting Requirements and Contact Details

Where a Permit condition imposes a requirement to forward documents to the Local Authority or to report a specified occurrence the following address and telephone number shall be used:

By Post

Environmental Health Manager
Bassetlaw District Council
Queens Buildings
Potter Street
Worksop
Notts
S80 2AH

By Telephone

Tel: (01909) 533533

email: andrea.stewart@bassetlaw.gov.uk