

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Walkers Snack Foods Limited

Walkers Snack Foods
11 Bursom Road
Beaumont Leys
Leicester
LE4 1BS

Variation application number

EPR/BT5890IB/V005

Permit number

EPR/BT5890IB

Walkers Snack Foods

Permit number EPR/BT5890IB

Introductory note

This introductory note does not form a part of the notice.

Under the Environmental Permitting (England & Wales) Regulations 2010 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made.

All the conditions of the permit have been varied and are subject to the right of appeal.

This variation is to add an Anaerobic Digestion (AD) facility to the site to take organic process waste (peelings, starch, crisps, oils) from the crisp and snack production plant, with use of the resultant biogas in a gas engine (combined heat and power plant, CHP) to generate electricity and heat for the site. A flare will be installed for emergency use only, in the event the CHP engine is not operational.

No waste will be accepted from outside the permitted facility. The AD facility comprises a biological waste treatment facility regulated as a S5.4 A(1) (b)(i) activity: recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day. The daily treatment capacity of the AD plant is about 150 tonnes per day.

There are no other changes to the permit.

The original permit was issued for the operation of an installation carrying out activities covered by the description in Sections 6.8 A(1)(d)(ii), 5.4 A(1)(a)(ii) and 1.1 A(1)(a)(i) in Part 1 to Schedule 1 of the EP Regulations, to the extent authorised by the Permit:

Section 6.8 A(1)(d)(ii) - "Treating and processing materials intended for the production of food products from vegetable raw materials at plant with a finished product production capacity of more than 300 tonnes per day (average value on a quarterly basis)";

Section 5.4 A(1)(a)(ii) – "Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day by physico-chemical treatment";

Section 1.1 A(1)(a)(i) – "Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more".

The installation manufactures approximately 92,000 tonnes per year of potato snack products from over 300,000 tonnes of raw potatoes. The products, which include Walkers Crisps, Sensations, Lites and Quaker Seasons, are packaged on site ready for storage and dispatch.

The overall site of approximately 16.5 hectares, includes regional warehousing and distribution facilities, which are excluded from the Installation. The facility is located approximately 4.5 km north west of the Leicester city centre in the Beaumont Leys area, within an industrial area surrounded by residential housing estates.

There are two main manufacturing areas: the Bursom Factory and the Leycroft Factory. The Bursom factory was constructed in 1982, modified in 2004 and now contains five process lines. The Leycroft factory was built in 1998, extended in 2003, and consists of three process lines. In addition to the manufacturing operations, the Installation has the following facilities: an effluent treatment plant (ETP), starch recovery plant, nitrogen generation plant, compressed air production, filling and packaging, Clean in Place (CIP) and sanitation, raw material storage, chemical, oil and solvent storage; a steam-raising dual fuel boiler, waste storage and wash-down areas.

The manufacturing process comprises the following main activities: potato delivery and unloading; abrasive peeling; washing and sizing; slicing; washing and drying; frying; sorting; flavouring; and packaging. Pre-washed potatoes are delivered to the site in bulk trucks directly from the growers, to the potato intake point at the Leycroft Factory, which supplies both factories. Vegetable oil is delivered to the site and stored in bulk storage containers, in an area adjacent to the Leycroft factory.

The raw potatoes are unloaded from the trucks by water cannon onto a flume. Wood and stones are removed and the potatoes are mechanically elevated into peeler hoppers. Weighed quantities of potatoes are fed from the hoppers to abrasive peelers, which feed all the Installation's process lines. The peeled potatoes are washed and sized; any large potatoes are halved. The potatoes are washed again and mechanically transferred by conveyer belt to the centrifugal slicers. The sliced potatoes are washed and dried in air driers prior to frying in vegetable oil.

Frying is undertaken on Bursom lines 1, 2, 4 and 5 and the three Leycroft lines. The Bursom Factory has four fryers and each is capable of processing approximately 1535 kg/hr of potato slices per fryer. The Leycroft Factory has three fryers, with a total capacity for frying around 3,250 kg/hr of potato slices.

The fried crisps are sorted to remove any off-spec crisps in a photo technology Optisort machine. Waste crisps are removed and collected for the AD plant. From the Optisort, the crisps are sent to flavour drums as required to produce Walkers Crisps and Walkers Sensations. For the manufacture of Walker Lites, crisps from the Optisort are de-oiled prior to flavouring using steam. Bursom line 6 is used to manufacture rice flour snacks which involves soaking the raw material to form a paste; this is extruded into its final shape and baked in a direct flame oven prior to flavouring. Starch based snacks produced on Bursom Line 6 oven are produced at a rate of 1,200 kg/hr.

Once flavoured, the crisps/snacks are then sent for primary packaging, where the air in the packets is replaced with nitrogen to ensure the freshness of the product. Packaged product is transferred to the regional distribution facility for secondary packaging and palletisation prior to despatch.

Waste water from the slicing process is routed to starch recovery plants where white potato starch is removed for further refining. The clean water recovered from the starch plants is recycled to the potato intake and peeling process. Waste water from the intake and peeling process is routed to the ETP. Cleaning and sanitation is conducted in accordance with food safety standards. Contaminated water is routed to the ETP. The ETP discharges to sewer and the treated effluent is processed at Severn Trent Water's Wanlip sewage works, which discharges to the River Soar. The ETP provides primary treatment for the removal of solids and the fats and oils; treated water output from the ETP averages 1600 m³/day. The S2 discharge is released as an intermittent fixed flow and is controlled through a discharge consent from Severn Trent Water. Uncontaminated surface water is discharged via an interceptor to a tributary of Rothley Brook.

The main release points to air relate to the fryers, the 5 MWth (input) steam boiler and the 0.8 MWth (input) direct-fired oven on Bursom Line 6. The total rated thermal input of the fryers is approximately 42 MWth and all seven fryers are fitted with low NOx burners. The CHP unit has a design capacity of 4.7MWth (input) and will generate around 2MW of electrical power and 1MW of heat. Emissions from the CHP stack to air will be NOx, and will fall within the current annual NOx mass emission limit, as well as carbon monoxide, sulphur dioxide and Total VOCs which will require monitoring. Additional emissions control measures include re-circulation of both the oil entrained vapour from the fryer hoods and the combustion of exhaust gases to the burners for reburn prior to release to atmosphere. The fryers and steam boiler utilise natural gas burners; diesel is used only as a standby fuel in the event of an interruption to the gas supply. Monitoring will be required for the emergency flare should it operate for more than 876 hours a year.

There are no Sites of Special Scientific Interest (SSSI's) within 2 km of the Installation. There are no European designated sites (Special Areas of Conservation or Special Protection Areas) within 10 km of the Installation. There is a Local Nature Reserve, four Local Wildlife Sites and three Scheduled Ancient Monuments within 2 km.

The Installation operates an Environmental Management System which is accredited to BS EN ISO14001. The site operates under a Climate Change Levy Agreement.

The schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application BT5890IB	31/03/05	
Request for Further Information	02/09/05	Responses dated 07/09/05, 09/09/05, 13/09/05, 15/09/05, 28/09/05, 29/09/05, 10/10/05 and 14/10/05
Request for Further Information	27/09/05	Responses dated 27/09/05
Request for Further Information	04/10/05	Responses dated 05/10/05, 10/10/05, and 04/10/05
Permit determined	18/01/06	
Application EPR/BT5890IB/V002	25/11/11	
Request for Further Information	13/01/12	Received 20/01/12
Request for Further Information	23/01/12	Received 26/01/12
Variation determined	21/02/12	
Application EPR/BT5890IB/V003	10/07/12	
Variation determined	26/07/12	
Agency variation determined EPR/BT5890IB/V004	04/09/13	Agency variation to implement the changes introduced by IED
Application EPR/BT5890IB/V005 (variation and consolidation)	Duly made 01/04/15	Application to vary to add an AD plant and update the permit to modern conditions.
Schedule 5 notice;	24/05/15;	Update to the OMP, clarification of water discharge, site containment and buildings.
RFI	11/06/15	AD Containment Risk Assessment.
Variation determined EPR/BT5890IB/V005 [Billing ref: LP3837WQ]	08/07/15	Varied and consolidated permit issued in modern condition format.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

Permit number

EPR/BT5890IB

Issued to

Walkers Snack Foods Limited (“the operator”)

whose registered office is

1600 Arlington Business Park

Theale

Reading

Berkshire

RG7 4SA

company registration number 02333074

to operate regulated facilities at

Walkers Snack Foods

11 Bursom Road

Beaumont Leys

Leicester

LE4 1BS

to the extent set out in the schedules.

The notice shall take effect from 08 July 2015.

Name	Date
Anne Nightingale	08 July 2015

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/BT5890IB

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BT5890IB/V005 authorising,

Walkers Snack Foods Limited (“the operator”),

whose registered office is

**1600 Arlington Business Park
Theale
Reading
Berkshire
RG7 4SA**

company registration number 02333074

to operate an installation at

**Walkers Snack Foods
11 Bursom Road
Beaumont Leys
Leicester
LE4 1BS**

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Anne Nightingale	08 July 2015

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
- (b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Energy efficiency

1.2.1 The operator shall:

- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
- (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

1.3.1 The operator shall:

- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
- (b) maintain records of raw materials and water used in the activities;
- (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
- (d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

1.4.1 The operator shall take appropriate measures to ensure that:

- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
- (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
- (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).
- 2.1.2 Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 table S2.2; and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational conditions

- 2.5.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.4 have been completed.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any

approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

- (a) point source emissions specified in tables S3.1, S3.2 and S3.3;
- (b) process monitoring specified in table S3.4;

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2, S3.3 unless otherwise agreed in writing by the Environment Agency.

3.6 Pests

3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

3.6.2 The operator shall:

- (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;
- (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;

- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the annual production /treatment data set out in schedule 4 table S4.2; and
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.3 Notifications

4.3.1 In the event:

- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and

- (iii) take the measures necessary to prevent further possible incidents or accidents;
 - (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and
 - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (a) any change in the operator's name or address; and
 - (b) any steps taken with a view to the dissolution of the operator.
- In any other case:
- (a) the death of any of the named operators (where the operator consists of more than one named individual);
 - (b) any change in the operator's name(s) or address(es); and
 - (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
- (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.
- 4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:
- (a) a decision by the Secretary of State not to re-certify the agreement;
 - (b) a decision by either the operator or the Secretary of State to terminate the agreement; and

(c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “immediately”, in which case it may be provided by telephone.

Schedule 1

Table S1.1 activities

Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
A1	6.8 A(1)(d)(ii) Treating and processing materials intended for the production of food products from vegetable raw materials at plant with a finished product production capacity of more than 300 tonnes per day (average value on a quarterly basis)	Manufacture of approximately 92000 tonnes per year of potato crisps and snacks	Receipt of raw materials to warehousing of finished products, incorporating the activities below
A2	5.4 A(1)(a)(ii) Disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day by physico-chemical treatment of waste	Operation of the Effluent Treatment Plant (ETP) for the control of releases to sewer	Collection and treatment of process effluent prior to discharge to sewer
A3	1.1 A(1)(a) Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more	Frying and operation of the steam-raising boiler and the direct flame oven	Processing activities from receipt of sliced and washed, raw material to production of final product; combustion units 53 MWth
A4	5.4 A(1)(b)(i) Recovery or a mix of recovery and disposal of non hazardous waste with a capacity exceeding 75 tonnes per day involving biological treatment.	R3: Recycling/reclamation of organic substances which are not used as solvents	From treatment of waste (shredding) through to digestion and recovery of by-products (digestate). Anaerobic digestion of waste in a digester tank followed by burning of biogas produced from the process.
Directly Associated Activity			
A5	Raw material, fuel and chemical storage and handling.	From receipt and storage of raw materials, fuels and chemicals to transfer to processing areas	
A6	Storage, handling and despatch of finished products, waste and other materials, in bulk storage tanks and other containers.	From receipt of finished products / wastes to despatch to warehousing or for disposal/recovery	
A7	Nitrogen generation	Operation of nitrogen generation and supply systems.	
A8	CIP and other cleaning systems.	Cleaning activities during/after production runs, including disposal of waste arisings	

A9	Operation of site systems for the supply of utilities and services such as electricity and compressed air.	Site utility and services systems as far as the Installation boundary.
A10	Emergency flare operation D10: Incineration on land	From the receipt of biogas produced at the on-site anaerobic digestion process to incineration with the release of combustion gases. Use of one auxiliary flare required only during periods of breakdown or maintenance of the CHP engine.
A11	Digestate storage	From the receipt of digestate produced from the on-site anaerobic digestion process to despatch for use off-site.
A12	Heat and electrical power supply R1:Use principally as a fuel to generate energy	From the receipt of biogas produced at the on-site anaerobic digestion process to combustion with the release of combustion gases. Combustion of biogas in one combined heat and power (CHP) engine with a thermal input of 4.7 MWth.
A13	Physical treatment for the purpose of recycling	From the receipt of waste to despatch for anaerobic digestion or despatch off site for recovery. Pre-treatment of waste (shredding) in enclosed building and on impermeable surface with sealed drainage system. Post-treatment of digestate (centrifuge or pressing) in an enclosed building and on an impermeable surface with sealed drainage system. Gas cleaning by biological or chemical scrubbing.
A14	Storage of biogas	From the receipt of biogas produced at the on-site anaerobic digestion process to despatch for use within the facility. Storage of biogas produced from on-site anaerobic digestion of permitted waste in roof space of digester.

Description	Parts	Date received
Application	The response to questions 2.1 and 2.2 given in sections B2.1 and B2.2 of the application.	31/03/2005
Variation Application	Responses to Part C3 of the Application	30/11/2011
Additional Information	Amendments to response to Q2 of Part C3 of the application concerning proposed emission limits to air	20/01/2001
Additional Information	Revised site layout plan identifying source emission points to air, water and sewer.	26/01/2012
Variation application EPR/BT5890IB/V005	Application form part C3, section 3a Technical Standards; Appendix 3 AD Feedstock	01/04/2015
Schedule 5 dated 12/05/2015, including request for revised Odour Management Plan.	Response to Schedule 5: Odour Management Plan Site Containment Measures	24/05/2015
RFI dated 08/06/2015	AD Containment Risk Assessment	11/06/2015

Reference	Requirement	Date
IC1	The Operator shall develop a written Site Closure Plan having regard for Agency Sector Guidance Note IPPC S6.10, Issue 1, September 2003 and shall submit a copy to the Agency for approval.	Completed
IC2	The Operator shall undertake an assessment of the surfacing and containment measures on site (including the condition of site drains). The assessment will take into account the requirements of section 2.2.5 of Agency Sector Guidance Note IPPC S6.10, Issue 1, August 2003. A written report summarising the findings, along with proposals for improvements and a proposed timetable for implementation, shall be submitted to the Agency.	Completed
IC3	The Operator shall expand and further develop the written Accident Management Plan. The Plan shall have regard to the requirements set out in Section 2.8 of the Agency Sector Guidance Note IPPC S6.10, Issue 1, August 2003. The Plan, along with any proposals for improvements and a proposed timetable for implementation, shall be submitted to the Agency.	Completed
IC4	The Operator shall undertake an assessment of potential emissions to sewer of pesticides and shall review the impact assessment with particular regard for any identified pesticide releases. The assessment shall take into account any previously acquired monitoring data. The operator shall submit a written report detailing proposals including timescales for the above, for approval prior to undertaking the assessment.	Completed

Table 1.3: Improvement programme		
IC5	<p>The Operator shall submit a report detailing a proposed monitoring programme for all fuels used, for atmospheric emissions of NO_x and CO, SO₂ and PM from the point sources listed in Table 2.2.1. The report shall provide justification for the proposed monitoring methods, the frequency/duration of the monitoring and present a timeframe for implementation. The report shall take into account the requirements of the Agency Technical Guidance Notes M1 July 2002 version 2 and M2 October 2004 version 3.</p> <p>The written report detailing the programme shall be submitted to the Agency for approval prior to undertaking the monitoring.</p>	Completed
IC6	<p>The Operator shall submit a revised H1 assessment for the emission points listed in Table 2.2.1, based on the results of the monitoring undertaken as a result of IC5 (above). A summary report of the monitoring results shall also be submitted along with the H1 assessment.</p>	Completed
IC7	<p>The Operator shall investigate the potential release of phosphate via W2 to the aquatic environment (Rothley Brook).</p> <p>The Operator shall report to the Agency, detailing the nature of the sources of phosphate, proposals for the reduction of phosphate discharge and the timescale for implementation.</p>	Completed

Table 1.4: Pre-Operational Condition		
Reference	Requirement	Date
POC 1	<p>Prior to the commissioning of the replacement Bursom Line 2, the Operator shall submit a written report to the Environment Agency detailing the assessment of impacts of NO_x emissions to air arising from the site on Human receptors within 2km of the installation. Commissioning of the line shall proceed in accordance with the written approval of the Environment Agency.</p>	Completed 09/07/2012

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
-	-

Table S2.2 Permitted waste types and quantities for anaerobic digestion	
Maximum quantity	Annual throughput shall not exceed 56,500 tonnes
Waste code	Description
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation; grey starch waste produced from on-site manufacture of crisps /snacks only
02 03 04	materials unsuitable for consumption or processing; potato peel, crisps and fines waste produced from on-site manufacture of crisps / snacks only
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 01	separately collected fractions (except 15 01)
20 01 25	edible oil and fat; oil waste produced from on-site manufacture of crisps / snacks only

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period NOTE 1	Monitoring frequency	Monitoring standard or method
Point A8 on Site Plan in Schedule 7	22Bar Steam Boiler	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	170 mg/m ³	Hourly average – min 4hr period	Annual	BS EN 14792
Point A17 on Site Plan in Schedule 7	Leycroft Line 1 fryer burner	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	240 mg/m ³	Hourly average – min 4hr period	Annual	BS EN 14792
Point A18 on Site Plan in Schedule 7	Leycroft Line 2 fryer burner	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	240 mg/m ³	Hourly average – min 4hr period	Annual	BS EN 14792
Point A19 on Site Plan in Schedule 7	Leycroft Line 3 fryer burner	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	240 mg/m ³	Hourly average – min 4hr period	Annual	BS EN 14792
Point A26 on Site Plan in Schedule 7	Bursom Line 1 fryer burner	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	90 mg/m ³	Hourly average – min 4hr period	Annual	BS EN 14792
AB2	Bursom Line 2 fryer burner	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	150 mg/m ³	Hourly average – min 4hr period	Annual	BS EN 14792
Point A27 on Site Plan in Schedule 5	Bursom Line 4 fryer burners	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	90 mg/m ³	Hourly average – min 4hr period	Annual	BS EN 14792

Point A27 on Site Plan in Schedule 7	Bursom Line 5 fryer burners	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	175 mg/m ³	Hourly average – min 4hr period	Annual	BS EN 14792
Point A28 on Site Plan in Schedule 7	Bursom Line 6 Direct Flame Oven	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	175 mg/m ³	Hourly average – min 4hr period	Annual	BS EN 14792
A29 on site plan in Appendix 5 of application EPR/BT5890IB/V005	CHP Engine Exhaust NOTE 4	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/m ³	Hourly average	Annual	BS EN 14792
		Sulphur dioxide	350 mg/m ³			BS EN 14791
		Carbon Monoxide	1400 mg/m ³			BS EN 15058
		Total VOCs	1000 mg/m ³			BS EN 12619:2013
A30 on site plan in Appendix 5 of application EPR/BT5890IB/V005	Emergency Flare stack NOTE 5	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	150 mg/m ³	Hourly average	Annual calculation NOTE 3	Mass Balance NOTE 2
		Carbon Monoxide	50 mg/m ³	Hourly average	Annual	BS EN 15058
		Total VOCs	10 mg/m ³	Hourly average	Annual	BS EN 12619:2013
A8, A29, A30, Leycroft Lines 1, 2, 3 and Bursom Lines 1, 2, 4, 5, 6.		Nitrogen (NO and NO ₂ expressed as NO ₂)	102,270 Kg Annual Mass Emission Limit (8,766Hrs)		Annual	As agreed with the Environment Agency
Pressure relief valves	Digester/Digestate storage tank	No parameter set	No limit set	--	Record of operating hours	

Note 1: See Section 6 of this permit for reference conditions.

Note 2: Method of calculation of Annual Mass Emission Limit shall be agreed in writing with the Agency

Note 3 - Monitoring to be undertaken 12 months after commissioning of the emergency flare. Following commissioning, monitoring to be undertaken in the event the emergency flare has been operational for more than 10 per cent of a year (876 hours). Record of operating hours to be submitted annually to the Environment Agency.

Note 4 - These limits are based on normal operating conditions and load - temperature 0°C (273K); pressure: 101.3 kPa and oxygen: 5 per cent (dry gas). The measurement uncertainty specified in LFTGN08 v2 2010 shall apply

Note 5 - These limits are based on normal operating conditions and load - temperature 0°C (273K); pressure: 101.3 kPa and oxygen: 3 per cent (dry gas). The measurement uncertainty specified in LFTGN05 v2 2010 shall apply.

Table S3.2 Point source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W2 on Site Plan in Schedule 5	Uncontaminated surface water run off from site drainage system (including process area) to Surface Water tributary of the Rothley Brook.	No parameter set	No limit set	--	-	-

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S2 [Marked S2 on site plan] to Severn Trent Water Ltd., Wanlip Sewage Treatment Works	Process effluent from the Effluent Treatment Plant	No parameter set	No limit set	--	--	--

Table S3.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Biogas from Digester	Flow	Continuous	In accordance with EU weights and measures Regulations	--
Biogas from Digester	Methane	Continuous	None specified	Gas monitors to be calibrated every 6 months or in accordance with the manufacturer's recommendations.
	Hydrogen sulphide	Continuous	None specified	--
Digester and storage tank	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary.
Digester and storage tank	Integrity checks	Weekly	Visual assessment	--
Scrubber / Carbon filtration system	Key process parameters to include pH, temperature and air flow	In accordance with manufacturer's recommendations.	None specified	Odour abatement system shall be regularly checked and maintained to ensure appropriate temperature and moisture content. Carbon filter(s) to be replaced when saturated in accordance with manufacturer's recommendations.

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	As specified in table S3.1	Every 12 months	1 January

Table S4.2: Annual production/treatment	
Parameter	Units
Total site production (Finished products)	tonnes
Electricity generated	MWh
Whole digestate	tonnes
Liquid digestate	tonnes or m ³
solid digestate	tonnes

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Towns water usage	Annually	m ³ /tonne product
Specific Energy Consumption per tonne product	Annually	MWh / tonne
Waste disposal per tonne of product	Annually	tonnes / tonne of product
Emergency flare usage	Annually	hours
Electricity exported	Annually	MWh
CHP engine usage	Annually	hours
CHP engine efficiency	Annually	%

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Environment Agency	21/02/2012
Water usage	Form WU 1 or other form as agreed in writing by the Environment Agency	03/10/2005
Waste Return	form R1 or other form as agreed in writing by the Environment Agency	03/10/2005
Energy usage	Form E1 or other form as agreed in writing by the Environment Agency	03/10/2005
Other performance indicators	Form PI1 or other form as agreed in writing by the Environment Agency	03/10/2005

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“anaerobic digestion” means a process of controlled decomposition of biodegradable materials under managed conditions where free oxygen is absent, at temperatures suitable for naturally occurring mesophilic or thermophilic anaerobes and facultative anaerobe bacteria species, which convert the inputs to a methane-rich biogas and whole digestate.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“building” means a construction that has the objective of providing sheltering cover and minimising emissions of noise, particulate matter, odour and litter.

digestate” means material resulting from an anaerobic digestion process

“disposal” means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

Pests” means Birds, Vermin and Insects.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“recovery” means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

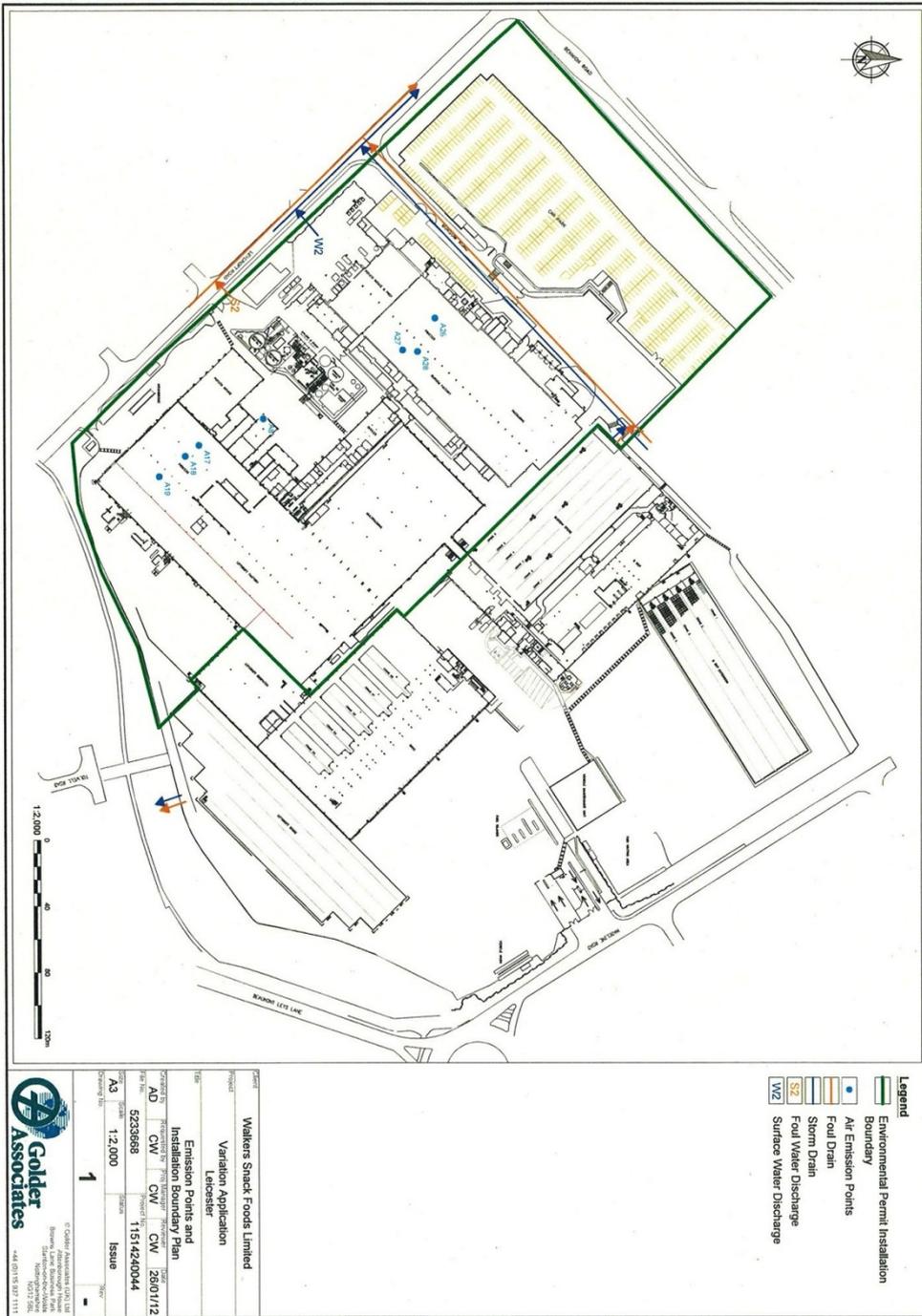
“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste

“year” means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

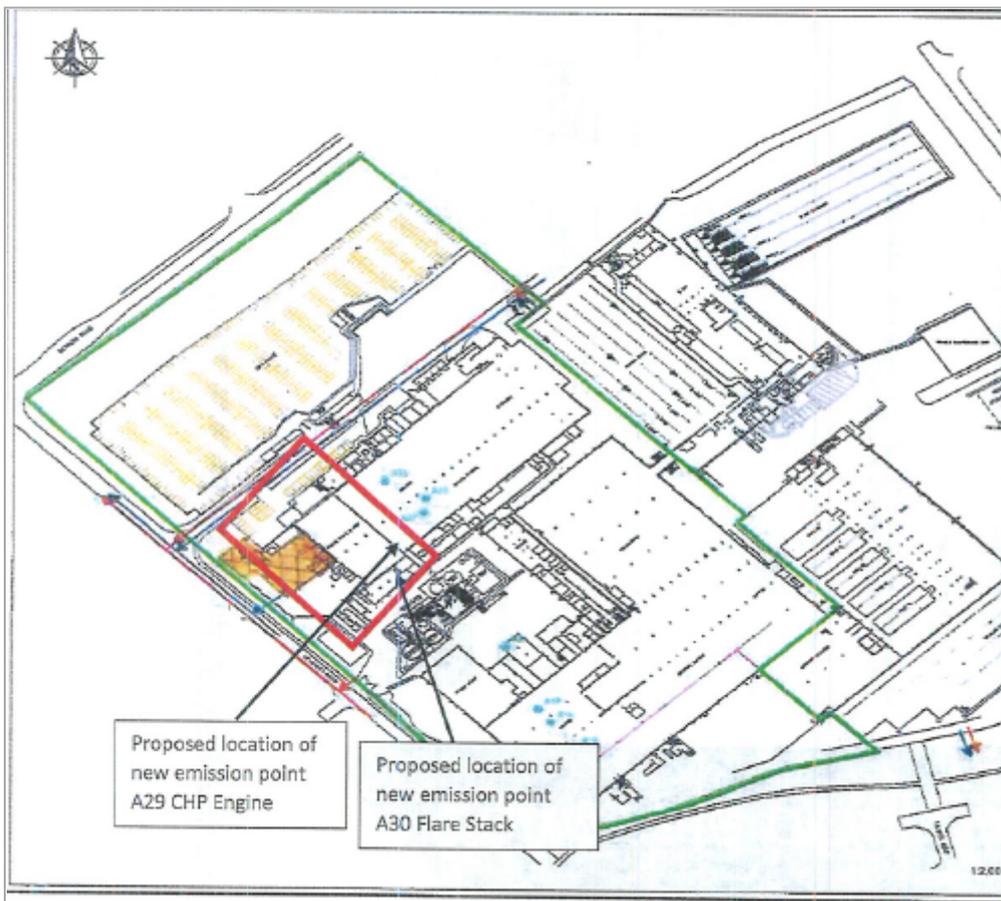
- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.



Project		Walkers Snack Foods Limited	
Client		Walkers Snack Foods Limited	
Location		Leicester	
Project Name		Emission Points and Installation Boundary Plan	
Reference No.	Project No.	Reference No.	Project No.
AD	CW	CW	2801/12
5233668		1151424004	
Scale		1:2,000	
Drawing No.		1	
Revision			
Issue			

Golder Associates
 Golder Associates Ltd, Ltd
 10000 170th Avenue
 Surrey, BC V3V 4K4
 Canada
 Tel: 604 273 5566
 Fax: 604 273 5565
 www.golder.com

Site layout with AD plant:



END OF PERMIT