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**Natural  
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Wales

## **Permit with introductory note**

The Environmental Permitting (England & Wales) Regulations 2010

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Felinfach Food Flavors Factory

Sensient Flavors Limited  
Felinfach  
Lampeter  
Ceredigion  
SA48 8AG

Permit number  
EPR/BL5644IK

# **Felinfach Food Flavors Factory**

## **Permit number EPR/BL5644IK**

### **Introductory note**

**This introductory note does not form a part of the permit**

The main purpose of the activity at the installation is the production of food flavourings from the hydrolysis of vegetable matter. This is a chemical process where Hydrochloric acid is added to maize, soya, or other vegetable matter using heat and under pressure. The 'cooking' process converts the vegetable proteins to the more flavoursome hydrolysed vegetable proteins (HVPs). Further processes then adjust the flavour or colour of the particular HVPs and subsequently converts them from the liquid to paste or to the powder form by spray drying.

The installation includes the raw material storage areas (the acid tanks, vegetable silos etc.), the main manufacturing and processing areas and the 'finishing' plant (filtering, drying, blending) and warehousing areas. It includes the boiler house providing steam, heat etc. to the process and related activities, the abatement plant treating the various gaseous emissions and the local effluent handling arrangements and sump.

There are several gaseous emissions from these processes and these include Hydrogen Chloride, Ammonia, Volatile Organic Compounds (VOCs) and Particulates. Some of these have the potential to be odorous. Two large scrubber systems have recently been installed with the potential of a two phase scrubbing operation. This will be considered with future emission data to see whether additional abatement measures are needed on site.

The liquid effluents are transferred to the local sump for pumping to and from treatment at the off-site consortium owned, purpose built, wastewater treatment plant (WWTP) that is not considered to be part of this installation.

There are several sensitive sites in the vicinity with local dwellings and the River Aeron within a few hundred meters.

Sensient are the principal owners of the Felinfach industrial Estate and immediately adjacent to them and sharing some of their facilities are Volac International Limited.

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

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application BL5644	Duly made 15/11/01	Application received for a new permit for the production of food flavourings from the hydrolysis of vegetable matter.
Schedule 4 request for more information made	13/12/01	Monitoring data requested from applicant
Request made by applicant to extend Schedule 4 deadline	27/12/01	
Request accepted	04/01/02	
Request made by applicant to extend Schedule 4 deadline	18/04/02	
Request accepted	20/04/02	
Additional information received in response to Schedule 4 request on 13/12/01	29/07/02	Monitoring data received
Schedule 4 request for more information made	27/09/02	
Additional information received in response to Schedule 4 request on 27/09/02	29/10/02	
Additional information received in response to Schedule 4 request on 27/09/02	06/03/03	
Request made to extend determination deadline	10/01/03	
Request to extend determination deadline accepted	13/01/03	
Permit determined BL5644	26/03/03	Permit issued to Sensient Flavors Limited
Variation Application TP3138XD	28/02/08	Application received to change installation boundary and install new rotary vacuum filter, hydrolysis reactor scrubber and filter press scrubber.
Variation determined TP3138XD	28/04/08	Varied permit issued.
Variation Application EPR/BL5644IK/V003	Duly made 29/09/09	Application received for the installation of a new boiler.

Variation determined EPR/BL5644IK/V003	09/09/10	Varied permit issued.
Variation Application EPR/BL5644IK/V004	28/05/13	Application received.
Application withdrawn by applicant EPR/BL5644IK/V004	03/07/13	Application withdrawn by applicant
Variation Application EPR/BL5644IK/V005	Duly Made 12/01/16	
Additional Information requested	11/03/16	Information relating to drainage, air emission point locations and storage of fuel
Additional Information Received	31/03/16	
Permit Determined	24/05/16	

#### Other Part A installation permits relating to this installation

Operator	Permit number	Date of issue
Sensient Flavors Limited & Volac International Limited	EPR/BP3135EB	04/07/14

End of introductory note

# Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

**EPR/BL5644IK**

The Natural Resources Body for Wales (“Natural Resources Wales”) authorises,  
under regulation 13 of the Environmental Permitting (England and Wales)  
Regulations 2010

**Sensient Flavors Limited** (“the operator”),

whose registered office is

**Bilton Road  
Bletchey  
Milton Keynes  
Buckinghamshire  
MK1 1HP**

company registration number **1514781**

to operate an installation at

**Sensient Flavors Limited  
Felinfach  
Lampeter  
Ceredigion  
SA48 8AG**

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

Signed

Date

	<b>24 May 2016</b>
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Eirian Macdonald

Authorised on behalf of Natural Resources Wales

# 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 For the following activities referenced in schedule 1, table S1.1 (A1 to A8.) 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 For the following activities referenced in schedule 1, table S1.1 (A1 to A8) 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 For the following activities referenced in schedule 1, table S1.1 (A1 to A8) 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 red on the site plan at schedule 7 to this permit.

### **2.3 Operating techniques**

- 2.3.1
  - (a) For the following activities referenced in schedule 1, table S1.1 (A1 to A8.) 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 Natural Resources Wales.
  - (b) If notified by Natural Resources Wales that the activities are giving rise to pollution, the operator shall submit to Natural Resources Wales 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 Natural Resources Wales.
- 2.3.2 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 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.

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

# **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 and S3.2
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Total annual emissions from the emission point(s) set out in tables schedule 3 S3.1 of a substance listed in schedule 3 table S3.3 shall not exceed the relevant limit in table S3.3.

## **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 Natural Resources Wales that the activities are giving rise to pollution, submit to Natural Resources Wales 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 Natural Resources Wales.
- 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 Natural Resources Wales, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
- (a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to odour, submit to Natural Resources Wales for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
  - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

### **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 Natural Resources Wales, 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 Natural Resources Wales that the activities are giving rise to pollution outside the site due to noise and vibration, submit to Natural Resources Wales 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 Natural Resources Wales.

### **3.5 Monitoring**

- 3.5.1 The operator shall, unless otherwise agreed in writing by Natural Resources Wales, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1;
- 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 3.3.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by Natural Resources Wales.
- 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 unless otherwise agreed in writing by Natural Resources Wales.

## 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 Natural Resources Wales, 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 Natural Resources Wales.

### 4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to Natural Resources Wales using the contact details supplied in writing by Natural Resources Wales.
- 4.2.2 For the following activities referenced in schedule 1, table S1.1 (A1 to A8) A report or reports on the performance of the activities over the previous year shall be submitted to Natural Resources Wales by 31 January (or other date agreed in writing by Natural Resources Wales) 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 Natural Resources Wales, 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 Natural Resources Wales, 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.

## 4.3 Notifications

- 4.3.1 (a) In the event 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 Natural Resources Wales,
  - (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) in the event of a breach of any permit condition the operator must immediately—
- (i) inform Natural Resources Wales, and
  - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) in the event 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 Natural Resources Wales has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform Natural Resources Wales when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to Natural Resources Wales at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 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) Natural Resources Wales 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 Natural Resources Wales 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, Natural Resources Wales 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.

4.3.8 Natural Resources Wales 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.

## **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 - Operations

**Table S1.1 activities**

Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A1	S4.2 A (1) (b)	Manufacturing activity which is likely to result in the release into the air of any hydrogen halide	Production of hydrolysed vegetable protein from the reaction of hydrochloric acid and vegetable matter
<b>Directly Associated Activity</b>			
A2	Storage and handling of raw materials	Raw material storage, handling, preparation and transfer	From the receipt of raw materials to their transfer to the hydrolysis reactor vessel
A3	Site generated energy supply for process	Generation of energy, steam and heat	Those boilers that provide energy for the Company's activities. Boilers to be run on LPG under normal conditions and fuel oil should the need arise
A4	Processing of the product	Processing of the product including neutralisation, filtration, blending, drying, bagging etc.	From production of flavourings to the final product storage areas
A5	Handling and storage of solid wastes	Handling and storage of solid wastes	From the point of production of any solid wastes to their collection, storage and transfer off site
A6	Handling and storage of liquid wastes	Handling and storage of liquid wastes including abatement scrubber liquors, process liquors, wash waters, other effluents and cooling waters	From the point of production of any liquid wastes to their collection, treatment and transfer offsite.
A7	The operation and control of emission abatement systems	The operation and control of emissions abatement systems	Operation of dosing and abatement scrubbers for air emissions and effluent treatment
A8	Handling and storage of fuel on site	Storage and handling of Liquefied Petroleum gas (LPG)	Liquefied Petroleum Gas (LPG) delivered to site to be used in the boilers and thermo-fluid systems. Maximum of 24 tonnes to be kept on-site at any one time.

**Table S1.2 Operating techniques**

Description	Parts	Date Received
Application	B.2.1, B.2.2, B.2.3, B.2.4, B.2.5, B.2.6, B.2.7, B.2.8, B.2.9, B.2.10, B.2.11	15/11/01
Response to first Schedule 4 part 1 notice (13/12/01)	Response to questions 1 and 2	29/07/02
Response to second Schedule 4 part 1 notice (27/09/02)	Response to questions 3-16	29/10/02 & 06/03/03
Application EPR/BL5644IK/V003	Report variation 2009	29/09/09
Application EPR/BL5644IK/V005	All parts of application forms	22/12/15
Application EPR/BL5644IK/V005	Updated Odour Management Plan	22/12/15
Application EPR/BL5644IK/V005	Updated Emission point location points	22/12/15
Application EPR/BL5644IK/V005	Non-Technical Summary and information. Parts 1 – 4	22/12/15
Additional Information Received	Updated drainage map, emission points, confirmation of storage plans and emissions to air	31/03/16

**Table S1.3 Improvement programme requirements**

Reference	Requirement	Date
9.23	The operator shall undertake the monitoring of those parameters that have a monitoring requirement but no emission limit in table S3.1 and shall submit a report to Natural Resources Wales setting out the emission levels, together with confidence limits, that can be achieved by the existing air emission abatement equipment.	31/07/2017
9.24	The operator shall submit an assessment to Natural Resources Wales of the Annual Total Mass Emissions of Hydrogen Chloride, Ammonia, Particulates, Volatile Organic Compounds (VOC's) for the installation. This shall include details of any calculations etc. that have been undertaken to determine these figures.	31/07/2017

## Schedule 2 - Waste types, raw materials and fuels

**Table S2.1 Raw materials and fuels**

Raw materials and fuel description	Specification
Liquefied Petroleum Gas – 24 tonnes	Used as a fuel in boilers
Fuel Oil – 170,000 litres	Used as a fuel in boilers
Hydrochloric Acid	Used as a reactant
Vegetable Matter	Used as a reactant
Flavouring compounds and chemicals	Used in the process

## 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	Monitoring frequency	Monitoring standard or method
A1 Point A1 (304-466-001) on site plan 400-000-025-010	Hydrochloric acid bulk tank scrubber	Gaseous chlorides (as HCl)	10mg m <sup>-3</sup>	Hourly	Quarterly	Monitoring methods used shall be in accordance with Environment Agency document “ <i>Technical Guidance Note M2 Monitoring of stack emissions to air</i> ”.
A2 Point A2 (102-466-004) on site plan 400-000-025-010	Hydrolysis Reactor scrubber	Gaseous chlorides (as HCl)	No Limit Set	Hourly	Quarterly	
		Particulate	20mg m <sup>-3</sup>	Hourly	Quarterly	
		Volatile Organic Compounds (as Carbon)	No Limit Set	Hourly	Quarterly	
A3 Point A3 (102-466-001) on site plan 400-000-025-010	Neutraliser scrubber	Gaseous chlorides (as HCl)	No Limit Set	Hourly	Quarterly	
		Particulate	20mg m <sup>-3</sup>	Hourly	Quarterly	
		Ammonia	20mg m <sup>-3</sup>	Hourly	Quarterly	
		Volatile Organic Compounds (as Carbon)	No Limit Set	Hourly	Quarterly	
A4 Point A4 (103-466-001) on site plan 400-000-025-010	Filter press scrubber (pH adjustment)	Particulate	20mg m <sup>-3</sup>	Hourly	Quarterly	
		Ammonia	No Limit Set	Hourly	Quarterly	
		Volatile Organic Compounds (as Carbon)	40mg m <sup>-3</sup>	Hourly	Quarterly	
A5 Point A5 (107-466-001) on site plan 400-000-025-010	Reaction flavour scrubber (reaction flavours)	Particulate	20mg m <sup>-3</sup>	Hourly	Quarterly	
		Ammonia	No Limit Set	Hourly	Quarterly	
		Volatile Organic Compounds (as Carbon)	No Limit Set	Hourly	Quarterly	



**Table S3.1 Point source emissions to air – emission limits and monitoring requirements**

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A6 Point A6 (164-466-001) on site plan 400-000-025-010	Drytec scrubber (spray drier)	Particulate	20mg m <sup>-3</sup>	Hourly	Quarterly	Monitoring methods used shall be in accordance with Environment Agency document “ <i>Technical Guidance Note M2 Monitoring of stack emissions to air</i> ”.
		Volatile Organic Compounds (as Carbon)	40mg m <sup>-3</sup>	Hourly	Quarterly	
A7 Point A7 (108-466-001) on site plan 400-000-025-010	Eva scrubber (spray drier)	Particulate	20mg m <sup>-3</sup>	Hourly	Quarterly	
		Volatile Organic Compounds (as Carbon)	40mg m <sup>-3</sup>	Hourly	Quarterly	
A9 Point A9 (102-460-001) on site plan 400-000-025-010	Press hood vent	No Monitoring Required				
A11 Point A11 (114-475-001) on site plan 400-000-025-010	Finished liquor processing area LEV (No. 1)	Volatile Organic Compounds (as Carbon)	No Limit Set	Hourly	6 monthly	Monitoring methods used shall be in accordance with Environment Agency document “ <i>Technical Guidance Note M2 Monitoring of stack emissions to air</i> ”.
A12 Point A12 (114-475-002) on site plan 400-000-025-010	Finished liquor processing area LEV (No. 2)	Volatile Organic Compounds (as Carbon)	No Limit Set	Hourly	6 monthly	
A13 Point A13 (201-538-101) on site plan 400-000-025-010	Boiler Flue No. 1	No Monitoring Required				

**Table S3.1 Point source emissions to air – emission limits and monitoring requirements**

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A14 Point A14 (201-538-201) on site plan 400-000-025-010	Boiler Flue No. 2				No Monitoring Required	
A16 Point A16 (102-431-002) on site plan 400-000-025-010	Soda ash silo vent				No Monitoring Required	
A17 Point A17 (305-431-001) on site plan 400-000-025-010	Maize silo vent No.1				No Monitoring Required	
A18 Point A18 (305-431-002) on site plan 400-000-025-010	Soya silo vent No. 2				No Monitoring Required	
A19 Point A19 (101-451-001) on site plan 400-000-025-010	Micropul vacuum outlet				No Monitoring Required	
A20 Point A20 (163-442-003) on site plan 400-000-025-010	Drytec Wanson boiler flue				No Monitoring Required	

**Table S3.1 Point source emissions to air – emission limits and monitoring requirements**

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A22 Point A22 (106-442-003) on site plan 400-000-025-010	Eva Wanson boiler flue				No Monitoring Required	
A23 Point A23 (165-431-002) on site plan 400-000-025-010	1 MT blender bagging LEV				No Monitoring Required	
A25 Point A25 (105-465-001) on site plan 400-000-025-010	Seasoning blender charging LEV				No Monitoring Required	
A27 Point A27 (195-441-001) on site plan 400-000-025-010	Cooling tower				No Monitoring Required	
A28 Point A28 (113-430-140) on site plan 400-000-025-010	Yeast storage tank vent				No Monitoring Required	
A29 Point A29 (113-430-141) on site plan 400-000-025-010	Yeast storage tank vent				No Monitoring Required	

**Table S3.1 Point source emissions to air – emission limits and monitoring requirements**

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A30 Point A30 (113-430-142) on site plan 400-000-025-010	Yeast storage tank vent				No Monitoring Required	
A31 Point A31 (113-430-143) on site plan 400-000-025-010	Yeast storage tank vent				No Monitoring Required	
A32 Point A32 (113-430-144) on site plan 400-000-025-010	Yeast storage tank vent				No Monitoring Required	

**Table S3.2 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
E1	On-Site effluent plant				No Monitoring Required	

**Table S3.3 Annual limits**

Substance	Medium	Limit (including unit)
Gaseous Chlorides	Air	kg in a year <sup>(Note 1)</sup>
Particulates	Air	kg in a year <sup>(Note 1)</sup>
Ammonia	Air	kg in a year <sup>(Note 1)</sup>
Volatile Organic Compounds (as Carbon)	Air	kg in a year <sup>(Note 1)</sup>

Note 1: Limits are to be determined following the completion of Improvement Conditions 9.23 and 9.24

## Schedule 4 - Reporting

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

<b>Table S4.1 Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission or monitoring point/reference</b>	<b>Reporting period</b>	<b>Period begins</b>
Emissions to air Parameters as required by condition 3.5.1.	A1, A2, A3, A4, A5, A6, A7, A11, A12	Every 6 months	1 January

<b>Table S4.2: Annual production/treatment</b>	
<b>Parameter</b>	<b>Units</b>
Total amount of hydrochloric acid used	tonnes
Total amount of Vegetable matter used	tonnes
Total product produced	tonnes

<b>Table S4.3 Performance parameters</b>		
<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Units</b>
Potable water use	Annual	m <sup>3</sup> /tonne
Non-potable water use	Annual	m <sup>3</sup> /tonne
Energy usage	Annual	MWh
Waste disposal	Annual	tonnes

<b>Table S4.4 Reporting forms</b>		
<b>Media/parameter</b>	<b>Reporting format</b>	<b>Date of form</b>
Air	Form air 1 or other form as agreed in writing by Natural Resources Wales	04/02/03
Water usage	Form water usage 1 or other form as agreed in writing by Natural Resources Wales	04/02/03
Energy usage	Form energy 1 or other form as agreed in writing by Natural Resources Wales	04/02/03
Other performance indicators	Form performance 1 or other form as agreed in writing by Natural Resources Wales	04/02/03

## 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	

<b>(a) Notification requirements for any activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment</b>	
<b>To be notified Immediately</b>	
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>(b) Notification requirements for the breach of a permit condition</b>	
<b>To be notified immediately</b>	
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	

<b>Time periods for notification following detection of a breach of a limit</b>	
<b>Parameter</b>	<b>Notification period</b>


**(c) In the event 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:**

To be notified immediately	
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.	

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of the operator



## Schedule 6 - Interpretation

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

*“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.

*“emissions to land”* includes emissions to groundwater.

*“pollution”*, other than in relation to a water discharge activity or groundwater activity, means any emission as a result of human activity which may—

- (a) be harmful to human health or the quality of the environment,
- (b) cause offence to a human sense,
- (c) result in damage to material property, or
- (d) impair or interfere with amenities or other legitimate uses of the environment;

*“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.

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

*“year”* means calendar year ending 31 December.

*“authorised officer”* means any person authorised by Natural Resources Wales 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.

*“background concentration”* means such concentration of that substance as is present in:

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

*“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.

*“hazardous property”* has the meaning given in Schedule 3 of the Hazardous Waste (England and Wales) Regulations 2005 No.894 and the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138).

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

*“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 code*” means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

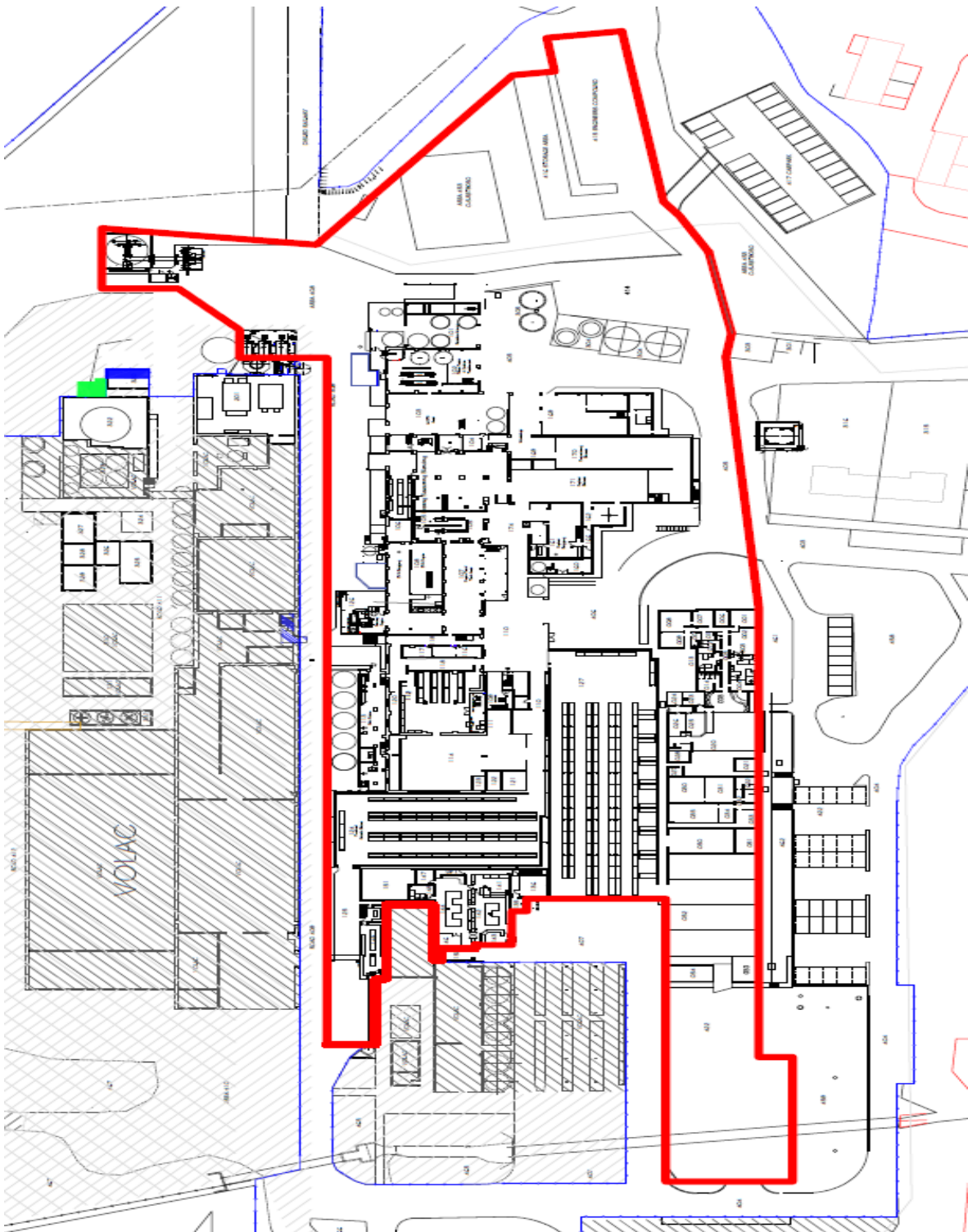
“*Waste Framework Directive*” or “*WFD*” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste

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:

- (a) 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
- (b) 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.

## Schedule 7 - Site plan



END OF PERMIT