



Permit with introductory note

Pollution Prevention and Control Regulations 2000

Aroma & Fine Chemicals Ltd
Widnes Aromachem
Dans Road
Widnes
Cheshire
WA8 0RF

Permit number
BS3751

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Introductory note

This introductory note does not form a part of the Permit

The following Permit is issued under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No.1973), as amended, ("the PPC Regulations") to operate an installation carrying out activities covered by the description in Section 4.1 A(1)(a)(i)(ii)(iii) and (iv) and Section 1.1 A(1)(b)(iii) in Part 1 to Schedule 1 of the PPC Regulations, to the extent authorised by the Permit:

Section 4.1A(1)(a)(i) – "producing hydrocarbons"

Section 4.1A(1)(a)(ii) – "producing organic chemicals containing oxygen"

Section 4.1A(1)(a)(iii) – "producing organic chemicals containing sulphur"

Section 4.1A(1)(a)(iv) – "producing organic chemicals containing nitrogen"

and

Section 1.1 A(1)(b)(iii) – "burning a fuel manufactured from a waste in an appliance with a rated thermal input of 3MW or more but less than 50MW.

Aspects of the operation of the installation which are not regulated by conditions of the Permit are subject to the condition implied by Regulation 12(10) of the PPC Regulations, i.e. the Operator shall use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation.

Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

In some sections of the Permit conditions require the Operator to use Best Available Techniques (BAT), in each of the aspects of the management of the installation, to prevent and where that is not practicable to reduce emissions. The conditions do not explain what is BAT. In determining BAT, the Operator should pay particular attention to relevant sections of the IPPC Sector guidance, appropriate Horizontal guidance (H1 to H4) and other relevant guidance.

A non-technical description of the installation is given in the Application, but the main features of the installation are as follows:

The Installation is situated in an industrial area approximately 1.5km east of Widnes covering an area of 6.6 hectares. In terms of the chemical industry the Installation would be classified as a small operation.

A range of chemicals are produced for the flavours and fragrance industry and the fine chemicals sector. The bulk of production from the Installation is within the definition of Section 4.1A(1)(a)(ii) in Part 1 to Schedule 1 of the PPC Regulations; namely producing organic chemicals containing oxygen with the majority of production being classified as the production of aldehydes. Production processes are multi-stage, batch operations.

Many of the products from the Installation are sold on and blended with other materials for eventual use in household products such as detergents, soaps and perfume, with material from the Installation occurring at concentrations of up to 2.5% in items purchased for use in the home.

The Installation also includes steam raising boilers and hot oil heaters; storage areas for raw materials, products and liquid and solid waste; facilities for the treatment of process effluent prior to discharge to sewer and a purpose built storm water collection lagoon.

The hot oil heaters use either natural gas or gas oil as a fuel. The main steam-raising boiler uses natural gas with gas oil as a standby fuel should the gas supply be interrupted. The other boiler uses a process-derived fuel, which has similar emission characteristics to gas oil. However, as this fuel is a waste material the burning of this material comes under Section 1.1 A(1)(b)(iii) in Part 1 to Schedule 1 of the PPC Regulations. In addition, the burning of a waste material as a fuel will require that the Operator is compliant with the Waste Incineration Regulations 2002 by the 28th December 2005.

Emissions to air consist mainly of volatile organic compounds and a small amount of hydrogen chloride. All emission points of potential significance have adequate abatement meeting relative technical guidance benchmarks. Liquid wastes are collected and pH adjusted prior to disposal to sewer. Oil/ water separators are in place. Emissions from the Installation following abatement are not significant with regard to environmental impact. A storm water lagoon is also part of the Installation which doubles as fire water containment.

Note that the Permit requires the submission of certain information to the Agency (see Sections 4 and 5). In addition, the Agency has the power to seek further information at any time under regulation 28 to the PPC Regulations provided that it acts reasonably.

Other PPC Permits relating to this installation

Permit holder	Permit Number	Date of Issue
Not applicable		

Superseded Licences/Authorisations/Consents relating to this installation

Holder	Reference Number	Date of Issue
Aroma & Fine Chemicals (previously Bush Boake Allen)	AL9033	05/09/94
Aroma & Fine Chemicals (previously Bush Boake Allen)	AK7388	07/03/94
Aroma & Fine Chemicals (previously Bush Boake Allen)	AK7370	07/03/94
Aroma & Fine Chemicals (previously Bush Boake Allen)	AJ8478	17/12/93

Other activities may take place on the site of this installation which are not regulated under this Permit or any other PPC Permit referred to in the Table above. These activities include the production of nitrogen by a third party, which due to the fact that the process used does not have the potential to effect emissions, is not considered to be part of the installation under the PPC Regulations.

Public Registers

Considerable information relating to Permits including the Application is available on public registers in accordance with the requirements of the PPC Regulations. Certain information may be withheld from public registers where it is commercially confidential or contrary to national security.

Variations to the Permit

This Permit may be varied in the future (by the Agency serving a Variation Notice on the Operator). If the Operator itself wants any of the Conditions of the Permit to be changed, it must submit a formal Application. The Status Log within the Introductory Note to any such Variation Notice will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

Surrender of the Permit

Before this Permit can be wholly or partially surrendered, an Application to surrender the Permit has to be made by the Operator. For the application to be successful, the Operator must be able to demonstrate to the Agency that there is no pollution risk and that no further steps are required to return the site to a satisfactory state.

Transfer of the Permit or part of the Permit

Before the Permit can be wholly or partially transferred to another person, an Application to transfer the Permit has to be made jointly by the existing and proposed holders. A transfer will be allowed unless the Agency considers that the proposed holder will not be the person who will have control over the operation of the installation or will not comply with the conditions of the transferred Permit. If, however, the Permit authorises the carrying out of a specified waste management activity, the transfer will only be allowed if the proposed holder is also considered to be "a fit and proper person" as required by the PPC Regulations.

Talking to us

Please quote the Permit Number if you contact the Agency about this Permit.

To give a Notification under Condition 5.1.1, the Operator should use the Incident Hotline telephone number (0800 80 70 60) or any other number notified in writing to the Operator by the Agency for that purpose.

Status Log

Detail	Date	Comment
Application BS3751	Received 31/03/03	
Further information on modification of Lillstralis process.	Received 27/10/03	This modification was issued as a Variation under IPC and is now included under this Permit.
Further information on production of a new aldehyde.	Received 03/12/03	Production of new aldehyde included under this Permit.
Schedule 4 Notice Response (except for question 3).	Received 06/01/04	Extension granted for response to question 3.
Schedule 4 Notice Response to Question 3.	Received 12/01/04	
Further information detailing modification to Boisvelone process and agreeing to exclusion of Abbalide process from this Permit.	Received 30/01/04	Abbalide process excluded from this Permit.
Further information on use of additional plant to produce Lilliol.	Received 10/03/04	Use of additional plant is included within this Permit.
Further information on proposed hydrolysis of TBPE waste.	Received 10/03/04	Proposed hydrolysis is included under this Permit.
Further information detailing new products for inclusion in the Application (aldehydes and a ketone).	Received 11/03/04	The proposed new products are included under this Permit.
Site plan	Received 19/03/04	
Permit issued	26/03/04	

End of Introductory Note.

Permit

Pollution Prevention and Control
Regulations 2000



**ENVIRONMENT
AGENCY**

Permit

Permit number
BS3751

The Environment Agency (the Agency) in exercise of its powers under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations (SI 2000 No 1973), hereby authorises

Aroma & Fine Chemicals ("the Operator"),

Of/ whose Registered Office (or principal place of business) is

**Dans Road
Widnes
Cheshire
WA8 0RF**

Company registration number 4178371

to operate an Installation at

**Widnes Aromachem
Dans Road
Widnes
Cheshire
WA8 0RF**

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

Signed	Date
	26th March 2004

Alex Rowe

Authorised to sign on behalf of the Agency

Conditions

1 General

1.1 Permitted activities

1.1.1 The Operator is authorised to carry out the activities and the associated activities specified in Table 1.1.1.

Table 1.1.1

Activity listed in Schedule 1 of the PPC Regulations / Associated Activity	Description of specified activity	Limits of specified activity
Section 4.1 A(1)(a)(i): Producing hydrocarbons.	Production of a range of organic compounds, a number of specific reactions are defined in the Application.	Receipt of raw materials to despatch of finished product.
Section 4.1 A(1)(a)(ii): Producing organic chemicals containing oxygen.	Production of a range of organic compounds, a number of specific reactions are defined in the Application.	Receipt of raw materials to despatch of finished product. Does not allow use of Abbalide process.
Section 4.1 A(1)(a)(iii): Producing organic chemicals containing sulphur.	Production of a range of organic compounds, a number of specific reactions are defined in the Application.	Receipt of raw materials to despatch of finished product.
Section 4.1 A(1)(a)(iv): Producing organic chemicals containing nitrogen.	Production of a range of organic compounds, a number of specific reactions are defined in the Application.	Receipt of raw materials to despatch of finished product.
Section 1.1 A(1)(b)(iii): Burning a fuel manufactured from a waste in an appliance with a rated thermal input of 3MW or more but less than 50MW.	Use of a process derived fuel produced from still residues and still front ends in a boiler to produce steam.	Boilerhouse
Associated activity	Burning natural gas or gas oil in a boiler to generate steam to provide heat for use in the stationary technical unit.	Boilerhouse
Associated activity	Hot oil heaters burning natural gas or gas oil to heat oil for use in the stationary technical unit.	SA2 – No. 1 & 2 Beverley and SA3 Beverly.
Associated activity	Storage and handling of solid and liquid wastes.	Production of waste to despatch from the Permitted Installation.
Associated activity	Collection and treatment of liquid effluent.	From entry to site drainage system to discharge to public sewer. Including the use of the storm water lagoon.

2 Operating conditions

2.1 In-process controls

- 2.1.1 The Permitted Installation shall, subject to the conditions of this Permit, be operated using the techniques and in the manner described in the documentation specified in Table 2.1.1, or as otherwise agreed in writing by the Agency in accordance with conditions 1.5.1 and 1.5.2 of this Permit.

Table 2.1.1: Operating techniques

Description	Parts	Date Received
Application	Sections 2.1 & 2.2.	31/03/03
Application	Appendix 1 pages 129 – 131 & 134.	31/03/03

- 2.1.2 The Permitted Installation shall, subject to the other conditions of this Permit, be operated using the techniques and in the manner described in the Site Protection and Monitoring Programme submitted under condition 4.1.7 of this Permit (as amended from time to time under condition 4.1.8), or as otherwise agreed in writing by the Agency.

2.2 Emissions

2.2.1 Emissions to air, (including heat, but excluding odour, noise or vibration) from specified points

- 2.2.1.1 This Part 2.2.1 of this Permit shall not apply to releases of odour, noise or vibration.
- 2.2.1.2 Emissions to air from the emission points in Table 2.2.1 shall only arise from the sources specified in that Table. There are no other specified controls imposed upon emissions to air in Part 2.2.1 of this Permit.

Table 2.2.1 : Emission points to air

Emission point reference or description	Source	Location of emission point
A1 [described on page 43 of the Application]	Boiler No. 2	Point A1 on site plan
A2 [described on page 45 of the Application]	Boiler No. 3	Point A2 on site plan
A3 [described on page 47 of the Application]	SA2 Beverley No.1 (hot oil heater)	Point A3 on site plan
A4 [described on page 46 of the Application]	SA2 Beverley No. 2 (hot oil heater)	Point A4 on site plan
A5 [described on page 48 of the Application]	SA3 Beverley (hot oil heater)	Point A5 on site plan
A6 [described as chimney on page 91 of Appendix 1 to the Application]	SA3 Caustic Scrubber System	Point A6 on site plan
A7 [emission points from reactors and tanks in SA1]	61600, 61601, 61700, 61800, 61801, 61809, 61810, R3601, R3602, R3604, R3605, R3606, R3607, R3610, R3614, R3615, R3619, R3620, R3621, S3501, S3502, S3503, S3504, S3505, S3601, T3601, T3602, T3705, T3708, T3901, T4204, T4205, T4206, T4212, T4307, T5901, T5904, V3606, V3609, V3611, V3644, V3653, V3654, V3655, V3656, V3674, V3677, V3681, V3903, V3904, V3905, V3906, V3907, V3912, V3913, V3917, V3918, V3919	SA1 on site plan
A8 [emission points from reactors and tanks in SA2]	R4501, R4503, R4601, R4605, R5201, R5401, S4601, S4602, S4604, S4605, T4305, T4308, T4309/10, V4508, V4510, V4511, V4648, V4649, V5201, V5401	SA2 on site plan
A9 [emission points from reactors and tanks in SA3]	30111, 30200, 30209, 30213, 30300, 30303, 30400, 30500, 30503, 30504, 30505, 30509, 30510, 30600, 30800, 30802, 30805, 30900, 30903, 30904, 30907, 309C1, 3T201, 3T203/4/8, 3T209, 3T502, 3T503, 3T505, 3T506, 3T509, 3T510, 3T511, 3T515, 3T516, T5909	SA3 on site plan

2.2.1.3 No condition applies.

2.2.1.4 No condition applies.

2.2.2 Emissions to water (other than groundwater), including heat, from specified points

2.2.2.1 This Part 2.2.2 of this Permit shall not apply to releases of odour, noise or vibration or to releases to groundwater.

Emissions to water (other than to sewer)

2.2.2.2 Conditions 2.2.2.3 - 2.2.2.6 shall not apply to emissions to sewer.

2.2.2.3 Emissions to water from the emission point specified in Table 2.2.4 shall only arise from the source specified in that Table.

Table 2.2.4: Emission point to water

Emission Point Reference or description	Source	Receiving Water
W1 [on site plan] National Grid Reference 5369 8596.	Storm water balancing lagoon.	Unnamed controlled water, tributary of the River Mersey.

2.2.2.4 No condition applies.

2.2.2.5 No condition applies.

2.2.2.6 No condition applies.

Emissions to sewer

2.2.2.7 Emissions to sewer from the specified emission points in Table 2.2.7 shall only arise from the source specified in that Table.

Table 2.2.7 Emission points to sewer

Emission point reference or description	Source	Sewer
S1 [on site plan]	Effluent treatment plant and storm water balancing lagoon	United Utilities Water PLC

2.2.2.8 The limits for the emissions to sewer for the parameters and emission point set out in Table 2.2.8 shall not be exceeded.

Table 2.2.8 : Emission limits and monitoring frequency to sewer

Emission point reference	Substance	Limit (including Reference Period) ⁽²⁾	Monitoring frequency	Monitoring method ⁽¹⁾
S1	Mercury and its compounds (as Hg) (mg/l)	0.05 Spot sample	Annually	
S1	Cadmium and its compounds (as Cd) (mg/l)	0.2 Spot sample	Annually	

Note 1: Monitoring methods are subject to review under the improvement programme, ref. 8.

Note 2: The emission limit value for mercury is effective from the 1st January 2005. This emission limit value may need to be reviewed dependent on the results of improvement condition 13.

2.2.2.7 No condition applies

2.2.2.10 No condition applies.

Additional site specific conditions

2.2.2.11 There shall be no emission to controlled waters from the emission point specified in Table 2.2.4, except when there is either (a) total power failure to the site, not due to act or default of Aroma & Fine Chemicals Ltd. or (b) in times of storm/wet weather conditions and only after the pump out rate to the sewer has reached it's maximum of 25m³/hr. In both situations no emission to controlled waters shall be permitted until the full capacity of the storm water balancing lagoon has been utilised. The pumping out of the lagoon to sewer shall continue after cessation of storm/wet weather conditions until the lagoon is empty. Similarly, in situations of total power failure the pumping out of the lagoon to sewer shall commence as soon as power is restored and continue until the lagoon is empty.

2.2.2.12 The frequency and duration of releases from the storm water-balancing lagoon shall automatically be monitored.

2.2.3 Emissions to groundwater

2.2.3.1 No emission from the Permitted Installation shall give rise to the introduction into groundwater of any substance in List I (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)).

2.2.3.2 No emission from within the Permitted Installation shall give rise to the introduction into groundwater of any substance in List II (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)) so as to cause pollution (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)).

- 2.2.3.3 For substances other than those in List I or II (as defined in the Groundwater Regulations 1998 (SI 1998 No.2746)), the Operator shall use BAT to prevent or where that is not practicable to reduce emissions to groundwater from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.2.4 Fugitive emissions of substances to air

- 2.2.4.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce fugitive emissions of substances to air from the Permitted Installation in particular from:

- storage areas
- buildings
- pipes, valves and other transfer systems
- open surfaces

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

- 2.2.4.2 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of litter from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.2.5 Fugitive emissions of substances to water and sewer

- 2.2.5.1 Subject to condition 2.2.5.2 below, the Operator shall use BAT so as to prevent or where that is not practicable to reduce fugitive emissions of substances to water (other than Groundwater) and sewer from the Permitted Installation in particular from:

- all structures under or over ground
- surfacing
- bunding
- storage areas

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

- 2.2.5.2 There shall be no release to water that would cause a breach of an EQS established by the UK Government to implement the Dangerous Substances Directive 76/464/EEC.

2.2.6 Odour

2.2.6.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce odorous emissions from the Permitted Installation, in particular by:

- limiting the use of odorous materials
- restricting odorous activities
- controlling the storage conditions of odorous materials
- controlling processing parameters to minimise the generation of odour
- optimising the performance of abatement systems
- timely monitoring, inspection and maintenance
- employing, where appropriate, an approved odour management plan

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.2.6.2 No condition applies.

2.2.6.3 No condition applies.

2.2.7 Emissions to land

2.2.7.1 This Part 2.2.7 of this Permit shall not apply to emissions to groundwater.

2.2.7.2 No emission from the Permitted Installation shall be made to land.

2.2.7.3 No condition applies.

2.2.8 Equivalent parameters or technical measures

2.2.8.1 The Operator shall comply with the requirements specified in Table 2.2.11, which supplement or replace emission limit values in accordance with Regulation 12(8) of the PPC Regulations.

Table 2.2.11 Equivalent parameters and technical measures

Parameter or measure	Requirement or description of measure, and frequency if relevant
SA3 Caustic Scrubber System Vent - hydrogen chloride breakthrough monitoring.	Continuous monitoring for hydrogen chloride breakthrough using electro-chemical cell with alarm set at 10mg/m ³ .
Sulphur Content of Liquid Fuels	Gas oil not to contain more than 0.2% of sulphur, this limit to be reduced to 0.1% from 1 January 2008.

2.3 Management

2.3.1 A copy of this Permit and those parts of the application referred to in this Permit shall be available, at all times, for reference by all staff carrying out work subject to the requirements of the Permit.

Training

- 2.3.2 The Permitted Installation shall be supervised by staff who are suitably trained and fully conversant with the requirements of this Permit.
- 2.3.3 All staff shall be fully conversant with those aspects of the Permit conditions which are relevant to their duties and shall be provided with adequate professional technical development and training and written operating instructions to enable them to carry out their duties.
- 2.3.4 The Operator shall maintain a record of the skills and training requirements for all staff whose tasks in relation to the Permitted Installation may have an impact on the environment and shall keep records of all relevant training.

Maintenance

- 2.3.5 All plant and equipment used in operating the Permitted Installation, the failure of which could lead to an adverse impact on the environment, shall be maintained in good operating condition.
- 2.3.6 The Operator shall maintain a record of relevant plant and equipment covered by condition 2.3.5 and for such plant and equipment:
- 2.3.6.1 a written or electronic maintenance programme; and
 - 2.3.6.2 records of its maintenance.

Incidents and Complaints

- 2.3.7 The Operator shall maintain and implement written procedures for:
- 2.3.7.1 taking prompt remedial action, investigating and reporting actual or potential non-compliance with operating procedures or emission limits and if such event occur;
 - 2.3.7.2 investigating incidents, (including any malfunction, breakdown or failure of plant, equipment or techniques, down time, any short term and long term remedial measures and near misses) and prompt implementation of appropriate actions; and
 - 2.3.7.3 ensuring that detailed records are made of all such actions and investigations.
- 2.3.8 The Operator shall record and investigate complaints concerning the Permitted Installation's effects or alleged effects on the environment. The record shall give the date and nature of complaint, time of complaint, name of complainant (if given), a summary of any investigation and the results of such investigation and any actions taken.

2.4 Efficient use of raw materials

- 2.4.1 The Operator shall -
- 2.4.1.1 maintain the raw materials table or description as submitted as additional information dated 06/01/04 in response to the Schedule 4 Notice and in particular consider on a periodic basis whether there are suitable alternative materials to reduce environmental impact;

- 2.4.1.2 carry out periodic waste minimisation audits and water use efficiency audits. If such an audit has not been carried out in the 2 years prior to the issue of this Permit, then the first such audit shall take place within 2 years of its issue. The methodology used and an action plan for increasing the efficiency of the use of raw materials or water shall be submitted to the Agency within 2 months of completion of each such audit and a review of the audit and a description of progress made against the action plan shall be submitted to the Agency at least every 4 years thereafter; and
- 2.4.1.3 ensure that incoming water use is directly measured and recorded.

2.5 Waste storage and handling

- 2.5.1 The Operator shall design, maintain and operate all facilities for the storage and handling of waste on site such that there are no releases to water or land during normal operation and that emissions to air and the risk of accidental release to water or land are minimised.

2.6 Waste recovery or disposal

- 2.6.1 Waste produced at the Permitted Installation shall be recycled or recovered unless technically and/or economically impossible.
- 2.6.2 The Operator shall maintain the waste recovery or disposal table or descriptions as submitted in Section 2.6 of the Application and in particular identify the best practicable environmental options for waste disposal.
- 2.6.3 The Operator shall maintain and implement a system which ensures that a record is made of the quantity, composition, origin, destination (including whether this is a recovery or disposal operation) and where relevant removal date of any waste that is produced at the Permitted Installation.

2.7 Energy efficiency

- 2.7.1 The Operator shall produce a report on the energy consumed at the Permitted Installation over the previous calendar year, by 31 January each year, providing the information required by condition 4.1.2.
- 2.7.2 The Operator shall maintain and update annually an energy management system which shall include, in particular, the monitoring of energy flows and targeting of areas for improving energy efficiency.
- 2.7.3 The Operator shall design, maintain and operate the Permitted Installation so as to secure energy efficiency, taking into account relevant guidance including the Agency's Energy Efficiency Horizontal Guidance Note H2 as from time to time amended. Energy efficiency shall be secured in particular by:
- ensuring that the appropriate operating and maintenance systems are in place;
 - ensuring that all plant is adequately insulated to minimise energy loss or

gain;

- ensuring that all appropriate containment methods, (e.g. seals and self-closing doors) are employed and maintained to minimise energy loss;
- employing appropriate basic controls, such as simple sensors and timers, to avoid unnecessary discharge of heated water or air;
- where building services constitute more than 5% of the total energy consumption of the Permitted Installation, identifying and employing the appropriate energy efficiency techniques for building services, having regard in particular to the Building services part of the Agency's Energy Efficiency Horizontal Guidance Note H2; and
- maintaining and implementing an energy efficiency plan which identifies energy saving techniques that are applicable to the activities and their associated environmental benefit and prioritises them, having regard to the appraisal method in the Agency's Energy Efficiency Horizontal Guidance Note H2.

2.8 Accident prevention and control

- 2.8.1 The Operator shall maintain and implement when necessary the accident management plan submitted or described in Section 2.8 of the Application. The plan shall be reviewed at least every 2 years or as soon as practicable after an accident, whichever is the earlier, and the Agency notified of the results of the review within 2 months of its completion.

2.9 Noise and vibration

- 2.9.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of noise and vibration from the Permitted Installation, in particular by:
- equipment maintenance, eg. of fans, pumps, motors, conveyors and mobile plant;
 - use and maintenance of appropriate attenuation, eg. silencers, barriers, enclosures;
 - timing and location of noisy activities and vehicle movements;
 - periodic checking of noise emissions, either qualitatively or quantitatively; and
 - maintenance of building fabric,

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.10 On-site monitoring

- 2.10.1 The Operator shall maintain and implement an emissions monitoring programme which ensures that emissions are monitored from the specified points, for the parameters listed in and to the frequencies and methods described in Table 2.2.8, unless otherwise agreed in writing, and that the results of such monitoring are assessed. The programme shall ensure that monitoring is carried out under an appropriate range of operating conditions.
- 2.10.2 No condition applies.
- 2.10.3 No condition applies.
- 2.10.4 No condition applies.
- 2.10.5 The Operator shall notify the Agency at least 14 days in advance of undertaking monitoring and/ or spot sampling, where such notification has been requested in writing by the Agency.
- 2.10.6 The Operator shall maintain records of all monitoring taken or carried out (this includes 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.
- 2.10.7 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme in condition 2.10.1 of this Permit shall have either MCERTS certification or MCERTS accreditation (as appropriate) unless otherwise agreed in writing.
- 2.10.8 There shall be provided:
- 2.10.8.1 safe and permanent means of access to enable sampling/monitoring to be carried out in relation to the emission points specified in Schedule 2 to this Permit, unless otherwise specified in that Schedule; and
 - 2.10.8.2 safe means of access to other sampling/monitoring points when required by the Agency.
- 2.10.9 The Operator shall carry out the on-going monitoring identified in the Site Protection and Monitoring Programme submitted under condition 4.1.7, unless otherwise agreed in writing by the Agency.
- 2.10.10 The Operator shall, within 6 months of the issue of this Permit, in accordance with and using the format given in the Land Protection Guidance:
- 2.10.10.1 collect the site reference data identified in the Site Protection and Monitoring Programme submitted under condition 4.1.7, and
 - 2.10.10.2 report that site reference data to the Agency,
 - unless otherwise agreed in writing by the Agency.

2.11 Closure and decommissioning

- 2.11.1 The Operator shall maintain and operate the Permitted Installation so as to prevent or minimise any pollution risk, including the generation of waste, on closure and decommissioning in particular by:-
- 2.11.1.1 attention to the design of new plant or equipment;
 - 2.11.1.2 the maintenance of a record of any events which have, or might have, impacted on the condition of the site along with any further investigation or remediation work carried out; and
 - 2.11.1.3 the maintenance of a site closure plan to demonstrate that the Permitted Installation can be decommissioned avoiding any pollution risk and returning the site of operation to a satisfactory state.
- 2.11.2 Notwithstanding condition 2.11.1 of this Permit, the Operator shall carry out a full review of the Site Closure Plan at least every 4 years.
- 2.11.3 The site closure plan shall be implemented on final cessation or decommissioning of the Permitted activities or part thereof.
- 2.11.4 The Operator shall give at least 30 days written notice to the Agency before implementing the site closure plan.

2.12 Multiple operator installations

- 2.12.1 This is not a multi-Operator installation.

2.13 Transfer to effluent treatment plant

- 2.13.1 No transfers to the effluent treatment plant are controlled under this part of the Permit.
- 2.13.2 No condition applies.

3 Records

- 3.1 The Operator shall ensure that all records required to be made by this Permit and any other records made by it in relation to the operation of the Permitted Installation shall:-
- 3.1.1 be made available for inspection by the Agency at any reasonable time;
 - 3.1.2 be supplied to the Agency on demand and without charge;
 - 3.1.3 be legible;
 - 3.1.4 be made as soon as reasonably practicable;
 - 3.1.5 indicate any amendments which have been made and shall include the original record wherever possible;
 - 3.1.6 be retained at the Permitted Installation, or other location agreed by the Agency in writing, for a minimum period of 4 years from the date when the records were made, unless otherwise agreed in writing; and
 - 3.1.7 where they concern the condition of the site of the Permitted Installation or are related to the implementation of the Site Protection and Monitoring Programme, be kept at the Permitted Installation, or other location agreed by the Agency in writing, until all parts of the Permit have been surrendered.

4 Reporting

- 4.1.1 All reports and written and or oral notifications required by this Permit and notifications required by Regulation 16 of the PPC Regulations shall be made or sent to the Agency using the contact details notified in writing to the Operator by the Agency.
- 4.1.2 The Operator shall, unless otherwise agreed in writing, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:-
- 4.1.2.1 in respect of the parameters and emission points specified in Table S2 to Schedule 2;
 - 4.1.2.2 for the reporting periods specified in Table S2 to Schedule 2 and using the forms specified in Table S3 to Schedule 3;
 - 4.1.2.3 giving the information from such results and assessments as may be required by the forms specified in those Tables; and
 - 4.1.2.4 to the Agency within 28 days of the end of the reporting period.
- 4.1.3 The Operator shall submit to the Agency a report on the performance of the Permitted Installation over the previous year, by 31 January each year, providing the information listed in Table S4.2 of Schedule 4, assessed at any frequency specified therein, and using the form specified in Table S3 to Schedule 3.
- 4.1.4 The Operator shall review fugitive emissions, having regard to the application of Best Available Techniques, on an annual basis, or such other period as shall be agreed in writing by the Agency, and a summary report on this review shall be sent to the Agency detailing such releases and the measures taken to reduce them within 3 months of the end of such period.
- 4.1.5 Where the Operator has a formal environmental management system applying to the Permitted Installation which encompasses annual improvement targets the Operator shall, not later than 31 January in each year, provide a summary report of the previous year's progress against such targets.
- 4.1.6 The Operator shall, within 6 months of receipt of written notice from the Agency, submit to the Agency a report assessing whether all appropriate preventive measures continue to be taken against pollution, in particular through the application of the best available techniques, at the Permitted Installation. The report shall consider any relevant published technical guidance current at the time of the notice which is either supplied with or referred to in the notice, and shall assess the costs and benefits of applying techniques described in that guidance, or otherwise identified by the Operator, that may provide environmental improvement.
- 4.1.7 The Operator shall, within two months of the date of this permit, submit a detailed Site Protection and Monitoring Programme, in accordance with and using the appropriate template format given in the Land Protection Guidance.
- 4.1.8 The operator shall maintain the Site Protection and Monitoring Programme (SPMP) submitted under condition 4.1.7, and shall carry out regular reviews of it. The results of such reviews and any changes made to the SPMP shall be reported to the Agency within 1 month of the review or change.

5 Notifications

- 5.1.1 The Operator shall notify the Agency **without delay** of:-
- 5.1.1.1 the detection of an emission of any substance which exceeds any limit or criterion in this Permit specified in relation to the substance;
 - 5.1.1.2 the detection of any fugitive emission which has caused, is causing or may cause significant pollution unless the quantity emitted is so trivial that it would be incapable of causing significant pollution;
 - 5.1.1.3 the detection of any malfunction, breakdown or failure of plant or techniques which has caused, is causing or has the potential to cause significant pollution; and
 - 5.1.1.4 any accident which has caused, is causing or has the potential to cause significant pollution.
- 5.1.2 The Operator shall submit written confirmation to the Agency of any notification under condition 5.1.1, by sending:-
- 5.1.2.1 the information listed in Part A of Schedule 1 to this Permit within 24 hours of such notification; and
 - 5.1.2.2 the more detailed information listed in Part B of that Schedule as soon as practicable thereafter;
- and such information shall be in accordance with that Schedule.
- 5.1.3 The Operator shall give written notification as soon as practicable prior to any of the following:-
- 5.1.3.1 permanent cessation of the operation of part or all of the Permitted Installation;
 - 5.1.3.2 cessation of operation of part or all of the Permitted Installation for a period likely to exceed 1 year; and
 - 5.1.3.3 resumption of the operation of part or all of the Permitted Installation after a cessation notified under condition 5.1.3.2.
- 5.1.4 The Operator shall notify the Agency, as soon as reasonably practicable, of any information concerning the state of the Site which adds to that provided to the Agency as part of the Application or to that in the Site Protection and Monitoring Programme submitted under condition 4.1.7 of this Permit.
- 5.1.5 The Operator shall notify the following matters to the Agency in writing within 14 days of their occurrence:-
- 5.1.5.1 where the Operator is a registered company:-
 - any change in the Operator's trading name, registered name or registered office address;
 - any change to particulars of the Operator's ultimate holding company (including details of an ultimate holding company where an Operator has become a subsidiary)
 - any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up;
 - 5.1.5.2 where the Operator is a corporate body other than a registered company:
 - any change in the Operator's name or address;
 - any steps taken with a view to the dissolution of the Operator.
 - 5.1.5.3 In any other case: -

Notifications

- the death of any of the named Operators (where the Operator consists of more than one named individual);
 - any change in the Operator's name(s) or address(es);
 - 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 them being in a partnership, dissolving the partnership;
- 5.1.6 Where the Operator has entered into a Climate Change Agreement with the Government, the Operator shall notify the Agency within one month of:-
- 5.1.6.1 a decision by the Secretary of State not to re-certify that Agreement.
 - 5.1.6.2 a decision by either the Operator or the Secretary of State to terminate that agreement.
 - 5.1.6.3 any subsequent decision by the Secretary of State to re-certify such an Agreement.
- 5.1.7 Where the Operator has entered into a Direct Participant Agreement in the Emissions Trading Scheme which covers emissions relating to the energy consumption of the activities, the Operator shall notify the Agency within one month of:-
- 5.1.7.1 a decision by the Operator to withdraw from or the Secretary of State to terminate that agreement.
 - 5.1.7.2 a failure to comply with an annual target under that Agreement at the end of the trading compliance period.
- 5.1.8 The operator shall notify the Agency in writing of, any known or planned introduction or material change in respect to emissions from the permitted installation to water or sewer, that may increase or introduce into the effluent any "dangerous substance" as defined in List I and List II of the dangerous substances directive 76/464/EEC and its daughter directives.

6 Interpretation

6.1.1 In this Permit, the following expressions shall have the following meanings:-

"Application" means the application for this Permit, together with any response to a notice served under Schedule 4 to the PPC Regulations, any further information submitted by the applicant and any operational change agreed under the conditions of this Permit.

"background concentration" means such concentration of that substance as is present in:

- water supplied to the site; or
- where more than 50% of the water used at the site is directly abstracted from ground or surface water on site, the abstracted water; or
- where the Permitted Installation uses no significant amount of supplied or abstracted water, the precipitation on to the site.

"BAT" means best available techniques means the most effective and advanced stage of development of activities and their methods of operation which indicates the practical suitability of particular techniques to prevent and where that is not practicable to reduce emissions and the impact on the environment as a whole. For these purposes: "available techniques" means "those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the cost and advantages, whether or not the techniques are used or produced inside the United Kingdom, as long as they are reasonably accessible to the operator"; "best" means "in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole" and "techniques" "includes both the technology used and the way in which the Permitted Installation is designed, built, maintained, operated and decommissioned." . In addition, Schedule 2 of the PPC Regulations has effect in relation to the determination of BAT.

"Fugitive emission" means an emission to air or water (including sewer) from the Permitted Installation which is not controlled by an emission or background concentration limit under conditions 2.2.1.3, 2.2.2.4, 2.2.2.5, 2.2.2.8 or 2.2.2.9 of this Permit.

"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.

"Land Protection Guidance" means the version of the Agency guidance note "H7 - Guidance on the Protection of Land under the PPC Regime: Application Site Report and Site Protection and Monitoring Programme", including its appended templates for data reporting, which is current at the time of issue of the Permit.

" $L_{Aeq,T}$ " means the equivalent continuous A-weighted sound pressure level in dB determined over time period, T.

" $L_{A90,T}$ " means the A-weighted sound pressure level in dB exceeded for 90% of the time period, T.

" L_{AFmax} " means the maximum A weighted sound level measurement in dB measured with a fast time weighting.

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"Monitoring" includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys.

"Permitted Installation" means the activities and the limits to those activities described in Table 1.1.1 of this Permit.

Interpretation

"*PPC Regulations*" means the Pollution, Prevention and Control (England and Wales) Regulations SI 2000 No.1973 (as amended) and words and expressions defined in the PPC Regulations shall have the same meanings when used in this Permit save to the extent they are specifically defined in this Permit.

"*Sewer*" means sewer within the meaning of section 219(1) of the Water Industry Act 1991.

"*Staff*" includes employees, directors or other officers of the Operator, and any other person under the Operator's direct or indirect control, including contractors.

"*Year*" means calendar year ending 31 December.

- 6.1.2 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.
- 6.1.3 Unless otherwise stated, any references in this Permit to concentrations of substances in emissions into air means:-
- 6.1.3.1 in relation to gases 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
 - 6.1.3.2 in relation to gases 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.
- 6.1.4 Where any condition of this Permit refers to the whole or parts of different documents, in the event of any conflict between the wording of such documents, the wording of the document(s) with the most recent date shall prevail to the extent of such conflict.

Schedule 1 - Notification of abnormal emissions

This page outlines the information that the Operator must provide to satisfy conditions 5.1.1 and 5.1.2 of this Permit.

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 PPC Regulations.

Part A

Permit Number	
Name of Operator	
Location of Permitted Installation	
Location of the emission	
Time and date of the emission	

Substance(s) emitted	Media	Best estimate of the quantity or the rate of emission	Time during which the emission took place

Measures taken, or intended to be taken, to stop the emission	
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Part B

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 or harm which has been or may be caused by the emission	
The dates of any unauthorised emissions from the Permitted Installation in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of Aroma & Fine Chemicals Ltd

Schedule 2 - Reporting of monitoring data

Parameters for which reports shall be made, in accordance with conditions 4.1.2 and 4.1.3 of this Permit, are listed below.

Table S2: Reporting of monitoring data

Parameter	Emission point	Reporting period	Period begins
Mercury and its compounds (as Hg) (mg/l)	S1	Every 12 months	01/01/05
Cadmium and its compounds (as Cd) (mg/l)	S1	Every 12 months	01/01/04
Water usage		Every 12 months	01/01/04
Energy usage		Every 12 months	01/01/04
Waste disposal and/or recovery		Every 12 months	01/01/04

Schedule 3 - Forms to be used

Table S3: Reporting Forms		
Media / parameter	Form Number	Date of Form
Sewer	S1	18/03/04
Energy	E1	18/03/04
Waste Return	R1	18/03/04
Water usage	WU1	18/03/04
Performance indicators	P1	18/03/04

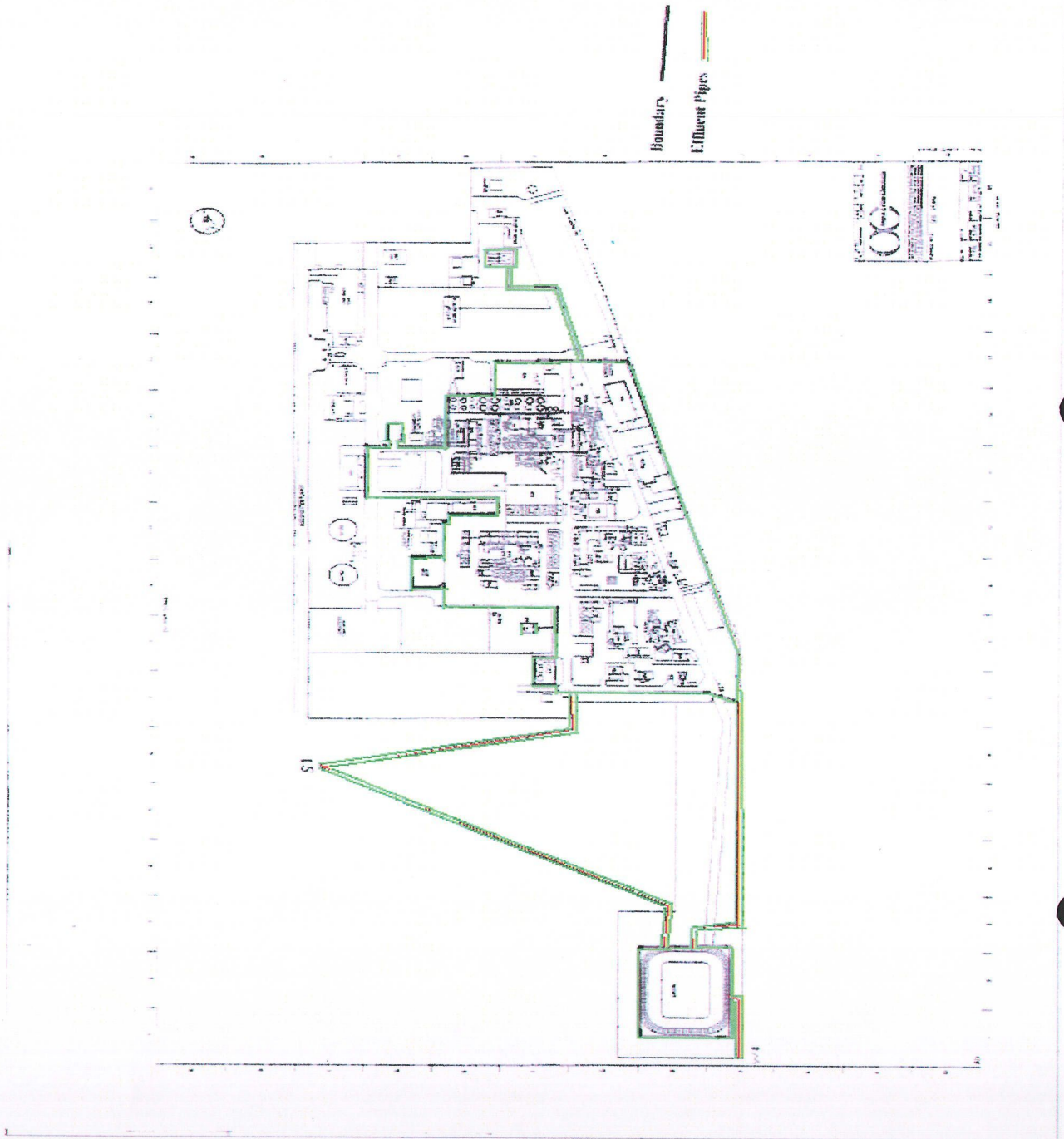
Schedule 4 - Reporting of performance data

Data required to be recorded and reported by Condition 4.1.3. The data should be assessed at the frequency given and reported annually to the Agency.

Table S4.2: Performance parameters

Parameter	Frequency of assessment	Performance indicator
VOCs	Annually	VOCs per tonne of chemical product
Hazardous Waste	Annually	Tonnes of waste per tonne of chemical product
Non-Hazardous Waste	Annually	Tonnes of waste per tonne of chemical product

Schedule 5 - Site Plan



END OF PERMIT