



**ENVIRONMENT
AGENCY**

Permit with introductory note

Pollution Prevention and Control (England & Wales) Regulations 2000

Lostock Sodium Carbonate Manufacturing
Site

Solvay Speciality Chemicals Limited
Solvay House
Lostock Works
Cheshire
CW9 7ZR

Permit number

BS5576IL

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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 part of an installation carrying out activities covered by the description in Section 4.2(a)(iv) in Part 1 to Schedule 1 of the PPC Regulations, to the extent authorised by the Permit:

Section 4.2 (a) Producing inorganic chemicals such as –

(iv) salts, such as ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate, cupric acetate, ammonium phosphomolybdate.

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 Permitted 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 Permitted 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 and other relevant guidance.

A non-technical description of the Permitted Installation is given in the Application, but the main features of the Permitted Installation are as follows.

This permit allows Solvay Speciality Chemicals Limited to manufacture calcium carbonate at their site at the Lostock Works in Northwich, Cheshire (National Grid Reference 368070, 372280). The installation is a multi-operator installation; part of the installation is operated by Solvay Speciality Chemicals Limited and the other part is operated by Brunner Mond (UK) Limited (SP3430BF). This permit applies to the activities of Solvay Speciality Chemicals Limited only.

The site is situated in a predominantly industrial area. The nearest residential area is located at a distance of approximately 180 m to the north of the site.

The process involves the production of precipitated calcium carbonate with a stearate coating. The main stages of production are precipitation, coating/mixing, filtration, drying, milling and packing. Other activities include raw material receipt and storage, final product storage and despatch, waste storage and effluent management (settlement). The process operates on a semi-batch basis. The installation is split into two sides, which can produce different products simultaneously and independently: 'Simon side' and 'Band side'. Each side is fitted with two carbonators, an emulsion vessel, a head tank and a pumping tank. Production capacity is 52,000 tonnes of dry product per year.

Calcium hydroxide in water (Milk of Lime, MOL), ammonium hydroxide and carbon dioxide are supplied from Brunner Mond. Liquid stearate acid is delivered by road tanker and water arrives via pipeline from River Dane. The process uses electricity from the grid and steam provided by off-site combined heat and power.

The Installation gives rise to emissions to air of particulates, ammonia, carbon monoxide and carbon dioxide. Emissions to surface water (Wade Brook) consist of rainwater runoff and steam condensate blowdown. Process effluent is pumped to Brunner Mond Lime Bed effluent treatment system. From here effluent is discharged to Wade Brook. This release is controlled under the Brunner Mond permit.

The Installation is operated in accordance with an Environmental Management System that has been accredited to ISO14001.

Witton Lime Beds Site of Special Scientific Interest (SSSI) is located approximately 1.8 km to the west of the site. Midland Meres and Moses Ramsar site is located at a distance of 8.5 km, and West Midlands Mosses Special Area of Conservation is located at 9.7 km. The Agency has concluded that there the operation has no adverse effect on any Natura 2000 sites and it is not considered to have an adverse effect on any important ecological sites.

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
Brunner Mond (UK) Limited	SP3430BF	-

Superseded Licences/Authorisations/Consents relating to this installation

Holder	Reference Number	Date of Issue
Integrated Pollution Control (IPC) Authorisation	AN9930	03/03/95
First Variation Section 11	AT9980	14/12/95
Second Variation Section 11	AV8372	14/06/96
Third Variation Section 11	AY7615	26/06/97
Fourth Variation Section 11	BF2994	11/02/99
Fifth Variation Section 10	BI5833	06/06/00
Sixth Variation Section 11	BT5423	27/11/02
Seventh Variation Section 11	BT8970	10/2/03

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.

Other existing Licences/Authorisations/Registrations relating to this site

Holder	Reference Number	Date of Issue
Waste Management Licence	60540M/MO1	01/03/03

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 Permitted 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	Response date
Application BS5576IL	Received 23/08/05	
Request for information	Request dated 27/07/06	Response dated 09/08/06
Request to extend determination	Request dated 21/12/05	Request accepted 04/01/06
Request to extend determination	Request dated 31/03/06	Request accepted 04/04/06
Request to extend determination	Request dated 27/06/06	Request accepted 03/07/06
Permit determined	20/10/06	

End of Introductory Note.

Permit

Pollution Prevention and Control
Regulations 2000 No.1973



**ENVIRONMENT
AGENCY**

Permit

Permit number

BS5576IL

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 **Solvay Speciality Chemicals Limited** ("the Operator"),

Whose Registered Office (or principal place of business) is

Baronet Road

Warrington

Cheshire

WA4 6HB

Company registration number **3650616**

to operate part of an Installation at

Solvay House

Lostock Works

Cheshire

CW9 7ZR

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

Signed

Date

	20 OCTOBER 2006
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Mike Peacock (Team Leader, Strategic Permitting Group, Warrington)

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 Permitted activities

Activity listed in Schedule 1 of the PPC Regulations / Associated Activity	Description of specified activity	Limits of specified activity
Section 4.2 (a) Producing inorganic chemicals such as – (iv) salts, such as ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate, cupric acetate, ammonium phosphomolybdate.	Manufacture of coated precipitated calcium carbonate (PCC)	Includes precipitation, mixing, filtration, drying, milling and packing
Associated activity (unlisted)	Raw material receipt and storage	Includes storage of milk of lime (MOL), carbon dioxide, stearic acid, and ammonium hydroxide
Associated activity (unlisted)	Final product storage and despatch	Storage of product in paper sacks, IBC's or silos
Associated activity (unlisted)	Waste storage	Includes storage of dry waste, waste oil and waste laboratory chemicals
Associated activity (unlisted)	Effluent management	Includes use of a settler and filters for separation of solids

1.2 Site

1.2.1 The activities authorised under condition 1.1.1 shall not extend beyond the Site, being the land shown edged in red on the Site Plan at Schedule 5 to this Permit, which is within the area edged in green on the Site Plan that represents the extent of the installation covered by this Permit and that of the other Operator of the installation.

1.3 Overarching management condition

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

1.4 Improvement programme

- 1.4.1 The Operator shall complete the improvements specified in Table 1.4.1 by the date specified in that table, and shall send written notification of the date of completion of each requirement to the Agency within 14 days of the completion of each such requirement.

Table 1.4.1: Improvement programme

Reference	Requirement	Date
IC 1	The Operator shall review the provision of secondary containment measures provided for all storage vessels, paying particular attention to the following: • MOL tank • Liquid stearate tank • Ammonia hydroxide day tank • Non-bulk storage vessels The review shall take into account the requirements of section 2.2.5 of the Agency Guidance Note S4.03 and shall include an assessment of bund capacity. A written report summarising the findings shall be submitted to the Agency. The report shall contain any proposals for identified improvements together with timescales for their implementation.	20/04/07
IC 2	The Operator shall investigate alternative treatment and disposal options for rain water collected from roofs, roadways and hardstanding, having regard to Section 2.2.2 of Agency Guidance Note S4.03. A written report summarising the options shall be submitted to the Agency. The report shall include timescales for implementing improvements.	20/04/07
IC 3	The Operator shall investigate techniques for controlling dust emissions so as to reduce exceedances of the emission limit, having regard to Section 2.2.1 of Agency Guidance Note S4.03. A summary report shall be submitted to the Agency together with timescales for implementing improvements.	20/04/07
IC 4	The Operator shall review the provision of MCERTS certification (or where this is not applicable, UKAS accreditation) for the organisations or methods employed to sample and analyse samples taken to fulfil the conditions of the permit. A report shall be submitted that details a timetable for achieving this standard for all parameters identified by the review as not meeting the required certification/accreditation.	20/07/07
IC 5	The Operator shall submit a formal programme of work for reducing fugitive emissions of ammonia, having regard to Section 2.2.4 of Agency Guidance Note S4.03. The programme shall include consideration of emissions occurring during mixing, filtration and drying as well as emissions from the ammonia stock tank, head tanks and pumping tanks. The programme shall also include proposals for replacing for disc filters with centrifuges at emission point A6.	20/07/07
IC 6	The Operator shall submit a report to the Agency detailing proposed methods for gathering ambient monitoring data for releases to air of ammonia. The report shall take into account the requirements of the Agency Technical Guidance Notes M1 and M2.	20/04/07
IC 7	The Operator shall undertake ambient monitoring for releases to air of ammonia. A report shall be submitted to the Agency detailing the monitoring undertaken and an assessment of the results obtained.	20/10/07
IC 8	The Operator shall submit to the Agency a final version of the dispersion modelling Cumulative Impact Assessment.	20/10/07
IC 9	The Operator shall submit to the Agency a programme of work for implementing the energy management improvement measures identified in the application, having regard to Section 2.7 of Agency Guidance Note S4.03.	20/04/08
IC 10	The Operator shall review alternative techniques for treatment of the effluent currently discharged to lime beds via effluent treatment transfer point BM1, with the aim of determining the Best Available Technique, other than the current method. The Operator shall have regard to Agency guidance note E1 and Regulation 3 of the PPC (England and Wales) Regulations 2000 (as amended) when carrying out this review. This work should consider BAT for effluent treatment across the Installation and may be carried out in conjunction with the other Operator within the Installation. If any of the techniques considered would require a final discharge to surface water, then the levels of suspended solids, ammonia, pH, and temperature to be achieved should aim to achieve the Benchmarks in Sector Guidance Note IPPC S4.03. Consideration should also be given to the feasibility of combined treatment of this effluent and that referred to in IC2. A report shall be submitted to the Agency in writing with the details of the techniques considered, a cost/benefit analysis and conclusions of the review	20/07/07

- 1.4.2 Where the Operator fails to comply with any requirement by the date specified in Table 1.4.1 the Operator shall send written notification of such failure to the Agency within 14 days of such date.

1.5 Minor operational changes

- 1.5.1 The Operator shall seek the Agency's written agreement to any minor operational changes under condition 2.1.1 of this Permit by sending to the Agency: written notice of the details of the proposed change including an assessment of its possible effects (including waste production) on risks to the environment from the Permitted Installation; any relevant supporting assessments and drawings; and the proposed implementation date.
- 1.5.2 Any such change shall not be implemented until agreed in writing by the Agency. As from the agreed implementation date, the Operator shall operate the Permitted Installation in accordance with that change, and relevant provisions in the Application shall be deemed to be amended.
- 1.5.3 When the qualification "unless otherwise agreed in writing" is used elsewhere in this Permit, the Operator shall seek such agreement by sending to the Agency written notice of the details of the proposed method(s) or techniques.
- 1.5.4 Any such method(s) or techniques shall not be implemented until agreed in writing by the Agency. As from the agreed implementation date, the Operator shall operate the Permitted Installation using that method or technique, and relevant provisions in the Application (and the Site Protection and Monitoring Programme, as the case may be) shall be deemed to be amended.

1.6 Pre-operational conditions

- 1.6.1 There are no pre-operational conditions.

1.7 Off-site conditions

- 1.7.1 There are no off-site conditions.

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	The response to questions 2.1 and 2.2 given in Section B2 of the application and section marked particulate compliance monitoring in section B2.10 of the application. Excluding sections from the application: 2.1.2 Milk of lime "The tank is operated at 50% capacity" 2.1.3 Filtration "Running at 3000rpm"	23/08/05

- 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 4.1.7), 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.

Table 2.2.1 : Emission points to air

Emission point reference or description	Source	Location of emission point
A1	Ammonia day tank	Point A1 on Map 1.3.2
A2	Carbonator 1	Point A2 No 1 Carb on Map 1.3.2
A3	Carbonator 2	Point A2 No 2 Carb on Map 1.3.2
A4	Carbonator 3	Point A2 No 3 Carb on Map 1.3.2
A5	Carbonator 4	Point A2 No 4 Carbon Map 1.3.2
A6	No 2 Simon filter mop	Point A3 F301B on Map 1.3.2
A7	Simon Elevator DCE Unit	Point A4 F303A on Map 1.3.2
A8	Simon Elevator DCE Unit	Point A4 F303B on Map 1.3.2
A9	Simon Elevator DCE Unit	Point A4 F303C on Map 1.3.2
A10	Simon dryer vents	Point A5 F304A on Map 1.3.2
A11	Simon dryer vents	Point A5 F304B on Map 1.3.2
A12	Simon dryer vents	Point A5 F304C on Map 1.3.2
A13	Simon mill transfer	Point A6 F305A on Map 1.3.2
A14	Simon mill transfer	Point A6 F305B on Map 1.3.2
A15	Simon mill transfer	Point A6 F305C on Map 1.3.2

A16	Simon dust suppression	Point A7 F306 on Map 1.3.2
A17	Band filter vents	Point A8 No 4 Filtr on Map 1.3.2
A18	Band filter vents	Point A8 No 5 Filtr on Map 1.3.2
A19	No 1 Band mop	Point A9 F403 on Map 1.3.2
A20	No 2 Band mop	Point A11 F503A on Map 1.3.2
A21	Band dust suppression	Point A12 F512 on Map 1.3.2
A22	Bulk hopper vent	Point A13 F604 on Map 1.3.2
A23	Band dust suppression	Point A14 F518 on Map 1.3.2
A24	Filter vacuum exhaust vent	Point A15 J911A on Map 1.3.2
A25	Filter vacuum exhaust vent	Point A15 J911B on Map 1.3.2
A26	SPM dust suppression	Point A16 F612 on Map 1.3.2
A27	SPM mill transfer	Point A17 F609A on Map 1.3.2
A28	SPM mill transfer	Point A17 F609B on Map 1.3.2

2.2.1.3 The limits for emissions to air for the parameter and emission points set out in Table 2.2.2 shall not be exceeded.

Table 2.2.2 : Emission limits to air and monitoring				
Emission point reference	Parameter	Limit (including reference period) ¹	Monitoring frequency	Monitoring method
A6	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A7	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A8	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A9	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A10	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A11	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A12	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A13	Particulates	20 mg/m ³	As per particulate	BS EN 13284-1:2002

		(3 mins per point)	compliance monitoring p97 of application	
A14	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A15	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A16	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A17	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A18	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A19	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A20	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A21	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A22	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A23	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A26	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A27	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of application	BS EN 13284-1:2002
A28	Particulates	20 mg/m ³ (3 mins per point)	As per particulate compliance monitoring p97 of	BS EN 13284-1:2002

application

Note 1: See Section 6 for reference conditions

- 2.2.1.4 Total emissions to air from emission points set out in Table 2.2.1 in any year of a substance listed in Table 2.2.3 shall not exceed the relevant limit in that Table.

Table 2.2.3 Annual limits

Substance	Limit – tonne
Ammonia (NH ₃)	60
Carbon monoxide (CO)	115

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.
- 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(s) specified in Table 2.2.4 shall only arise from the source(s) specified in that Table.

Table 2.2.4: Emission point to water

Emission point reference or description	Source	Receiving water
W1 (No. 2 outfall)	Rain water drainage	Wade Brook

- 2.2.2.4 The limits for the emissions to water for the parameter(s) and emission point(s) set out in Table 2.2.5 shall not be exceeded.
- 2.2.2.5 Where a substance is specified in Table 2.2.5 but no limit is set for it, the concentration of such substance in emissions to water from the relevant emission point shall be no greater than the background concentration

Table 2.2.5 : Emission limits to water and monitoring

Emission point reference	Parameter	Limit (including reference period)	Monitoring frequency	Monitoring method
W1	Suspended solids	300 mg/l (Daily analysis averaged over 3 month period)	Every 3 months	ISO 11929:1997, EN872
W1	Ammonia	10 mg/l (Daily analysis averaged over 3 month period)	Every 3 months	BS6068: Section 2.11 1987
W1	pH	5-10 (Daily analysis averaged over 3 month period)	Every 3 months	SCA ISBN 0117514284

2.2.2.6 No condition applies.

Emissions to sewer

2.2.2.7 There are no specific controls imposed on emissions to sewer in this Part of the Permit.

2.2.2.8 No condition applies.

2.2.2.9 No condition applies.

2.2.2.10 No condition applies.

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.

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.

2.2.5 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.

2.3 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
 - 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 submitted in Section 2.4 of the Application 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 the Permitted installation 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.
- 2.5.2 No condition applies.

2.6 Waste recovery or disposal

- 2.6.1 Waste produced at the Permitted Installation shall be:
 - 2.6.1.1 recovered to no lesser extent than described in the Application; and
 - 2.6.1.2 where not recovered, disposed of while avoiding or reducing any impacts on the environment provided always that this is not done in any way that would have a greater effect on the environment than that described in the Application.
- 2.6.2 The Operator shall maintain the waste recovery or disposal table or description submitted in Section 2.6 of the Application and in particular review the available options for waste recovery and disposal for the purposes of complying with condition 2.6.1 above.
- 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.
- 2.6.4 No condition applies.

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 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.

- 2.9.2 No condition applies.

- 2.9.3 No condition applies.

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 Tables 2.2.2 and 2.2.5, 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 No condition applies.

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 There are no conditions as a result of the interactions of the Permits covering this installation

2.13 Transfer to effluent treatment plant

2.13.1 Transfers to effluent treatment plant shall occur only from the points specified in Table 2.13.1 and transfers from those points shall arise only from the sources and shall be released only to the treatment plant specified in that Table.

Table 2.13.1 Transfer point(s) to effluent treatment plant(s)

Transfer point identifier	description/ Source	Effluent treatment plant
BM1	Number 2 sump	Brunner Mond Lime Beds lagoon

2.13.2 The limits for transfers to effluent treatment plant for the parameter(s) and transfer point(s) set out in Table 2.13.2 shall not be exceeded.

Table 2.13.2 Limits for transfers to effluent treatment plant(s)

Parameter	Transfer point	Limit (incl reference period)	Monitoring frequency	Monitoring method
Effluent flow	Number 2 sump	2 3000 m ³ /day	Every 6 months	SCA ISBN 011752364X
Suspended solids	Number 2 sump	140 tonnes/year	Every 6 months	ISO 11929:1997, EN872
Ammonia	Number 2 sump	80 tonnes/year	Every 6 months	BS6068: Section 2.11 1987

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 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 Tables S4.1 and 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 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. The Operator shall implement and maintain the Site Protection and Monitoring Programme (SPMP) submitted under this condition, and shall carry out regular reviews of it at a minimum frequency of every 2 years. 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.
- 4.1.8** No condition applies.

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;
- 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: -

- the death of any of the named Operators (where the Operator consists of more than one named individual);

Notifications

- 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 emission from the permitted installation to water or sewer, that may increase the concentration of 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 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 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.

"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.

"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 monthly" for reporting/sampling means after/during each 6 month period, January to June; July to December and, when sampling, with at least 8 weeks between each sampling date.

"Annual" for reporting/sampling means after/during each year and, when sampling, with at least 4 months between each sampling date.

"Suspended Solids" means those suspended solids measured after drying at 105°C.

"mg/m³" means milligramme per cubic metre.

"mg/l" means milligramme per litre.

"t" means tonne.

"MWh" means megawatt hour.

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	BS5576IL
Name of Operator	Solvay Speciality Chemicals Limited
Location of Installation	Solvay House, Lostock Works, Cheshire
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 Solvay Speciality Chemicals Limited.

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
Particulates mg m ⁻³	A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, A21, A22, A23, A26, A27, A28	Annually	01/01/07
Ammonia (NH ₃) t	Permitted Installation	Annually	01/01/07
Carbon monoxide (CO) t	Permitted Installation	Annually	01/01/07
Carbon dioxide (CO ₂) t	Permitted Installation	Annually	01/01/07
Suspended solids mg/l	W1	Every 3 months	01/01/07
Ammonia mg/l	W1	Every 3 months	01/01/07
PH	W1	Every 3 months	01/01/07
Water usage t	Permitted Installation	Annually	01/01/07
Energy usage MWh	Permitted Installation	Annually	01/01/07
Waste disposal and recovery t	Permitted Installation	Annually	01/01/07

Schedule 3 - Forms to be used

Table S3: Reporting Forms	
Media / parameter	Form number
Air	A1
Water (excluding sewer)	W1
Energy	E1
Waste recovery and disposal	R1
Water usage	WU1
Performance indicators	PI1

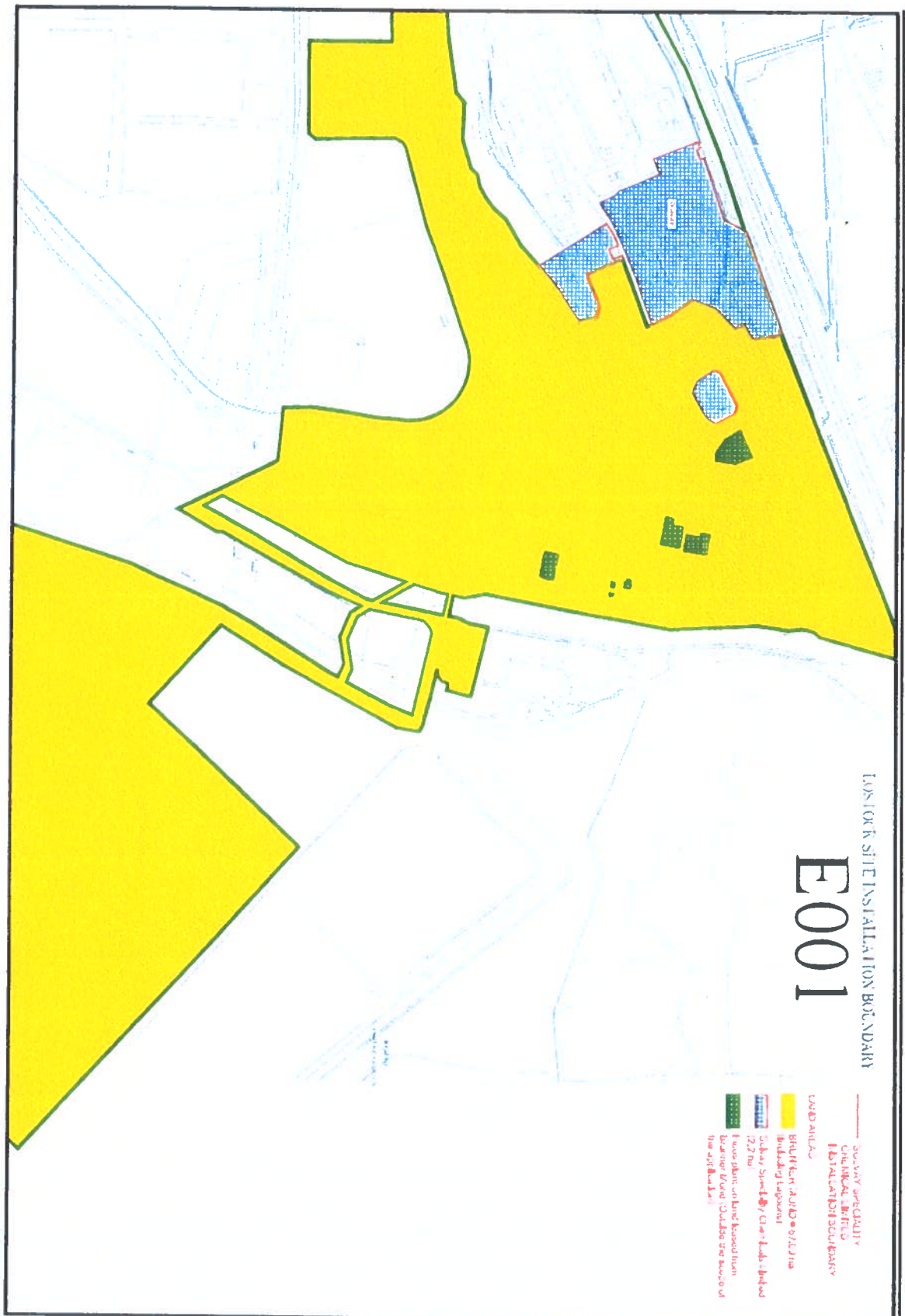
Schedule 4 - Reporting of performance data

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 S4.1: Annual Production/Treatment	
Production of Precipitated Calcium Carbonate (PCC)	(tonnes)

Table S4.2: Performance parameters		
Parameter	Frequency of assessment	Performance Indicator
Energy usage (electricity and steam)	Annually	MWh/t finished product
Water usage	Annually	t/t finished product
Consumption of Milk of Lime (MOL)	Annually	t/t finished product
Disposal of dry waste to landfill	Annually	t/t finished product
Number of exceedances of 20 mg/m ³ limit for particulates from emission points A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, A21, A22, A23, A26, A27, A28	Annually	Number of exceedances per annum

Schedule 5 - Site plan



END OF PERMIT

