ENVIRONMENT AGENCY

Permit with introductory note

Pollution Prevention and Control (England & Wales) Regulations 2000

Amlwch Plastics Installation

Rehau Limited
Llwyn Onn Industrial Estate
Amlwch
Anglesey
LL68 9BX

Permit number

BX6421IY

Contents

The lower section of the mixer is a stainless steel jacketed vessel with a paddle stirrer. Process cooling water is circulated through the jacket on a closed loop system to control the temperature. The compound material containing lead stabiliser (4-6% by weight) is transferred into hessian sacks and transferred within the building to intermediate storage or directly to one of three dedicated extrusion lines.

The compound material is raised by a hoist and released from the bottom of the sack into the hopper of the extruder, where the material is screw conveyed through a die at about 190 °C. The molten material is forced through a cooled calibration tool to provide the finished profile. Process cooling water supply for the extruder is provided from the closed loop circuit, which serves the mixer plant. The uPVC profiles are warehoused on site pending dispatch to the customer.

Emissions to air from the weigh stations and both sections of the combination mixer are extracted to a reverse jet fabric-filtration plant, before venting via an 11m-high stack to atmosphere.

There are no direct emissions to controlled water from the installation.

Process cooling water (purge) is discharged periodically from the installation to sewer. This emission is subject to a trade effluent consent issued by Dwr Cymru/Welsh Water.

There are no emissions direct to land from the installation. Bag filter dust is sent for off-site disposal as hazardous waste. Off-cuts from the finished uPVC profile are recycled as a "regrind" material back into the mixing process.

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**
None applicable		

Superseded Licences/Authorisations/Consents relating to this installation		
Holder	**Reference Number**	**Date of Issue**
None applicable		

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.

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 4.2 Part A(1) (d) in Part 1 to Schedule 1 of the PPC Regulations, to the extent authorised by the Permit:

> *Section 4.2 Part A(1) (d) – "Manufacturing activity...involving the use of...lead ...., where the activity may result in the release into the air of any of those elements or compounds..".*

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 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 "Part A1installation" (the installation) is located at Amlwch on the Isle of Anglesey.

The installation forms part of the Rehau site, located at National Grid Reference 24411 39255, which manufactures plastic components, including gaskets for refrigerators, hard profiles and edge band strip for the furniture industry. The products are based on polyvinyl chloride (PVC), or a polymer based on acrylonitrile/butadiene/styrene monomers.

The purpose of the installation is to manufacture uPVC profiles, which incorporate lead (Pb) based stabiliser. This manufacturing activity involves dry-blend mixing PVC, lead stabiliser, filler, pigment and impact modifier to produce a compounded PVC powder, which is subsequently extruded into the final plastic profile. The mixing for this activity is carried out on a batch basis in Mixer 1, which has a production capability of 360kg/hr. Mixer 1 is also used on a batch basis to produce plasticised PVC compound with calcium/zinc-based stabiliser, to make soft refrigerator gaskets. This particular activity however is not subject to regulation under this permit.

All raw materials for the uPVC-lead stabiliser based compound are supplied in sealed bags or lined cardboard boxes and stored within the main production building or the "Packaway" building. The lead stabiliser; a lead sulphate and lead stearate blend, is supplied as pellets (incorporating polyethylene wax) in low temperature melt plastic bags, which are stored within the "Packaway" warehouse.

The raw materials are weighed out manually at a weigh-station, under local exhaust ventilation, and added into the upper section of a hot/cold combination mixer (Mixer 1). This section of the mixer comprises a closed sealed stainless steel vessel with a high-speed rotor where the raw meal is blended at a high shear rate to produce a homogenous blend. The high shear rate raises the temperature within the mixer to between 130-135°C, when the blend is automatically discharged into the lower section where it is cooled to between 40-50°C.

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	Response Date
Application BX6421IY	Received 25/01/05	-
Request to extend determination	Request dated 23/05/05	Request accepted 23/05/05
Supplementary Information	Received 13/06/05	Response dated 07/06/05
Supplementary Information	Received 14/06/05	Response dated 10/06/05
Permit determined	Issued and effective 20/07/05	-

End of Introductory Note.

Permit
Pollution Prevention and Control Regulations 2000

ENVIRONMENT AGENCY

Permit

Permit number
BX6421IY

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 **Rehau Limited** ("the Operator"),

whose Registered Office (or principal place of business) is

Rehau Limited
Hill Court
Walford
Ross on Wye
Herefordshire
HR9 5QN

Company registration number **722004**

to operate an Installation*(s)* at

Llwyn Onn Industrial Estate
Amlwch
Anglesey
Gwynedd
LL68 9BX

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

Signed	Date
Roger Green	20 July 2005

Roger Green

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

Activity listed in Schedule 1 of the PPC Regulations / Associated Activity	Description of specified activity	Limits of specified activity
Section 4.2 Part A(1) (d)	Manufacture of polyvinyl chloride plastic profiles using lead based stabiliser	From receipt of raw materials to dispatch of finished product

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 green on the Site Plan at Schedule 5 to this Permit.

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
1	The Operator shall implement a programme of emissions monitoring for the treated cooling water purge to sewer. The programme shall include flow measurement and recording; and sample measurements for pH, suspended solids and total organic carbon (TOC) to BS6068, BS EN 872 and BS EN 1484 respectively, unless otherwise agreed in writing by the Agency. The programme shall provide for the samples to be taken and their measurements recorded at a frequency not less than six-monthly. Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme shall have MCERTS certification or accreditation (as appropriate) unless otherwise agreed in writing.	31/08/05
2	The Operator shall submit a written report to the Agency providing details of the scope and the results from the emissions monitoring exercise for lead and particulate matter from emission point A1 carried out on 10/6/05.	31/08/05
3	The Operator shall submit the revised site drainage plan for foul and surface water as proposed in the Application.	31/10/05
4	The Operator shall: a) implement an energy management system for measuring and recording energy consumption of the Permitted Installation; and b) review measures for improved energy efficiency at the Permitted Installation having regard to the Agency's Energy Efficiency Horizontal Guidance Note H2 and submit a written report to the Agency summarising the review, with proposals and timescales, if appropriate, for implementation of the identified measures.	a) 31/10/05 b) 31/01/06
5	The Operator shall: a) carry out the air dispersion modelling study for lead and particulate emissions from emission point A1 as proposed in the Application, based on the (MCERTS) emissions monitoring dated 10/6/05 following installation of the new stack; and b) submit a written report to the Agency providing an assessment of the predicted impacts from the emissions on the environment and including the information requirements set out in Agency guidance note Air Dispersion Modelling Requirements Report.	31/10/05
6	The Operator shall: a) review measures for identifying, assessing and minimising environmental accident risks related to the Permitted Installation and submit a written report to the Agency summarising the review, with proposals and timescales, if appropriate, for implementation of identified improvements; and b) implement an accident management plan for the Permitted Installation having regard to section 2.8 of the Agency's Sector Guidance Note IPPC S4.03.	31/12/05
7	The Operator shall implement a programme of monitoring for measuring and recording water consumption of the Permitted Installation.	31/12/05
8	The Operator shall incorporate a documented site closure plan into its management system, having regard to guidance in section 2.11 of the Agency's Sector Guidance Note IPPC S4.03.	31/12/05
9	The Operator shall: a) implement the environmental management system (EMS), based on the ISO 14001 standard, as proposed in the application; and b) submit a written report to the Agency reviewing progress and timescales towards formal external certification of the EMS to the standard	31/12/05

10	The Operator shall: a) review measures to reduce the risk of fugitive emissions to water and to sewer from the storage of hazardous substances across the Permitted Installation. The review shall in particular include measures for improved secondary containment of hazardous substances held in tanks, drums and IBCs. The review shall have regard for section 2.2.5 of the Agency's Sector Guidance Note IPPC S4.03; b) review measures to reduce the risk to the environment of potentially contaminated firewater run-off from the Permitted Installation; and c) submit a written report to the Agency summarising the reviews, with proposals and timescales, if appropriate, for implementation of identified improvements and risk reduction measures.	31/12/05
11	The Operator shall, in relation to containment of hazardous substances, implement a formal scheme of registration, inspection and maintenance for: a) sub-surface pipework, vessels and sumps; b) surfacing, kerbing and bunds; and c) above ground tanks	31/12/05
12	The Operator shall: a) review the noise control measures relating to the Permitted Installation having regard for the main noise sources and nearest noise sensitive receptors; b) review the risk of noise nuisance, in particular, from the chiller units serving the cooling water system; and c) submit a written report to the Agency summarising the reviews, with proposals and timescales, if appropriate, for implementation of measures to minimise noise nuisance risk.	31/3/06
13	The Operator shall: a) carry out an audit of waste arisings from the Permitted Installation and review the best available environmental options for their recovery or disposal; and b) submit a written report to the Agency summarising the audit and review, with proposals and timescales, if appropriate, for implementation of the identified environmental options.	31/03/06
14	The Operator shall: a) review measures for improved monitoring and performance of the fabric filter-abatement plant serving Mixer 1. The review shall include instrumented systems for indication and alarm of filter failure and bypass; and b) submit a written report to the Agency summarising the review with proposals and timescales, if appropriate, for implementation of the identified measures.	31/03/06

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

There are no pre-operational conditions

1.7 Off-site Conditions

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 of the application	25/01/05
	Supplementary information dated 07/06/05	13/06/05

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, 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

2.2.1.2 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	Source	Location of emission point
A1	Bag filtration unit vent serving the Mixing plant extraction system	Drawing ROW 65503 (Application appendix 17)

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

Table 2.2.2 : Emission limits to air and monitoring: Via emission point reference A1

Parameter	Limit [1]	Monitoring frequency	Monitoring method [2]
Particulate matter (mg/m^3)	10	Biannual	BS EN 13284-1
Lead (mg/m^3)	2	Biannual	BS EN 14385

Notes

[1]: See Condition 6.1.3 for reference conditions
[2]: Monitoring method to be used unless otherwise agreed in writing with the Agency

2.2.2 Emissions to water (other than groundwater), including heat, and excluding odour, noise or vibration from specified points

2.2.2.2 Conditions 2.2.2.3 shall not apply to emissions to sewer.

2.2.2.3 No emission from the Permitted Installation shall be made to water.

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(s) specified in that Table.

Table 2.2.7 Emission points to sewer

Emission point reference	Source [1]	Sewer
S1	Process cooling water system: cooling water purge to sewer from pump house	Dwr Cymru Cyf.

Notes

[1]: See Condition 1.4.1, improvement programme reference 1 in table 1.4.1.

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.

2.2.7 Emissions to Land (other than to groundwater)

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

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:

a) a written or electronic maintenance programme; and

b) records of its maintenance.

Incidents and Complaints

2.3.7 The Operator shall maintain and implement written procedures for:

a) taking prompt remedial action, investigating and reporting actual or potential non-compliance with operating procedures or emission limits; and

b) 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

c) 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 -

a) maintain the raw materials table or description submitted in response to Section 2.4 of the Application and in particular consider on a periodic basis whether there are suitable alternative materials to reduce environmental impact;

b) 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

c) subject to completion of improvement reference 7 specified in table 1.4.1, ensure that incoming water use by the Permitted Installation is 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.

2.6 Waste recovery or disposal

2.6.1 Waste produced at the Permitted Installation shall be:

a) recovered to no lesser extent than described in the Application; and

b) 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 response to Section 2.6 of the Application and supplementary information dated 07/06/05 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.

2.7 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 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 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 referred to in improvement reference 6 of Table 1.4.1. 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 2.2.2, 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.

2.10.5 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:

a) 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

b) 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:

a) collect the site reference data identified in the Site Protection and Monitoring Programme submitted under condition 4.1.7, and

b) 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:-

a) attention to the design of new plant or equipment;

b) 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

c) the maintenance of a site closure plan to demonstrate that the 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

This is not a multi-Operator installation.

2.13 Transfer to effluent treatment plant

No transfers to effluent treatment plant are controlled under this part of this Permit.

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:-

a) be made available for inspection by the Agency at any reasonable time;

b) be supplied to the Agency on demand and without charge;

c) be legible;

d) be made as soon as reasonably practicable;

e) indicate any amendments which have been made and shall include the original record wherever possible;

f) 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

g) 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:-

a) in respect of the parameters and emission points specified in Table S2 to Schedule 2;

b) for the reporting periods specified in Table S2 to Schedule 2 and using the forms specified in Table S3 to Schedule 3;

c) giving the information from such results and assessments as may be required by the forms specified in those Tables; and

d) 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,

a) 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; and

b) implement and maintain the Site Protection and Monitoring Programme (SPMP) submitted under condition 4.1.7a); and

c) carry out regular reviews of it at a minimum frequency of every 2 years; and

d) report the results of such reviews and any changes made to the SPMP to the Agency within 1 month of the review or change.

4.1.8 The Operator shall,

a) review the substitution of lead (Pb) based stabilisers for alternative stabiliser systems used at the Permitted Installation, having regard to the application of Best Available Techniques, on an annual basis; and

b) send a summary report on this review to the Agency, not later than 31 January in each year, detailing the measures taken, measures proposed and timescales, if appropriate, towards substitution.

5 Notifications

5.1.1 The Operator shall notify the Agency **without delay** of:-

a) the detection of an emission of any substance which exceeds any limit or criterion in this Permit specified in relation to the substance;

b) the detection of any fugitive emission which has caused, is causing or may cause significant pollution;

c) 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

d) 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:-

a) the information listed in Part A of Schedule 1 to this Permit within 24 hours of such notification; and

b) 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:-

a) permanent cessation of the operation of part or all of the Permitted Installation;

b) cessation of operation of part or all of the Permitted Installation for a period likely to exceed 1 year; and

c) resumption of the operation of part or all of the Permitted Installation after a cessation notified under condition 5.1.3(b).

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:

a) that provided to the Agency as part of the Application; or to

b) 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:-

a) 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;

b) 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;

c) In any other case: -

- 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:-

a) a decision by the Secretary of State not to re-certify that Agreement.

b) a decision by either the Operator or the Secretary of State to terminate that agreement.

c) 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:-

a) a decision by the Operator to withdraw from or the Secretary of State to terminate that agreement.

b) a failure to comply with an annual target under that Agreement at the end of the trading compliance period.

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.

"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 condition 2.2.1.3 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.

6.1.2 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:-

a) 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

b) 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 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	

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 installation in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of REHAU LIMITED

Schedule 2 - Reporting of monitoring data

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

Table S2: Reporting of monitoring data

Parameter	Emission point [1]	Reporting period	Period begins
Particulates mg/ m^3	A1	Every 6 months	1 January and 1 July respectively each year
Lead mg/ m^3	A1	Every 6 months	1 January and 1 July respectively each year
Energy usage	-	Every 12 months	1 January each year

Note [1]: In respect of condition 2.10.8, there is no requirement for the provision of a permanent means of access to enable sampling/monitoring to be carried out in relation to the emission points referred to in this Schedule.

Schedule 3 - Forms to be used

Table S3: Reporting Forms		
Media / parameter	**Form Reference**	**Date of Form**
Air	A1	July 2005
Energy	E1	July 2005
Waste	R1	July 2005
Performance indicators	PI1	July 2005

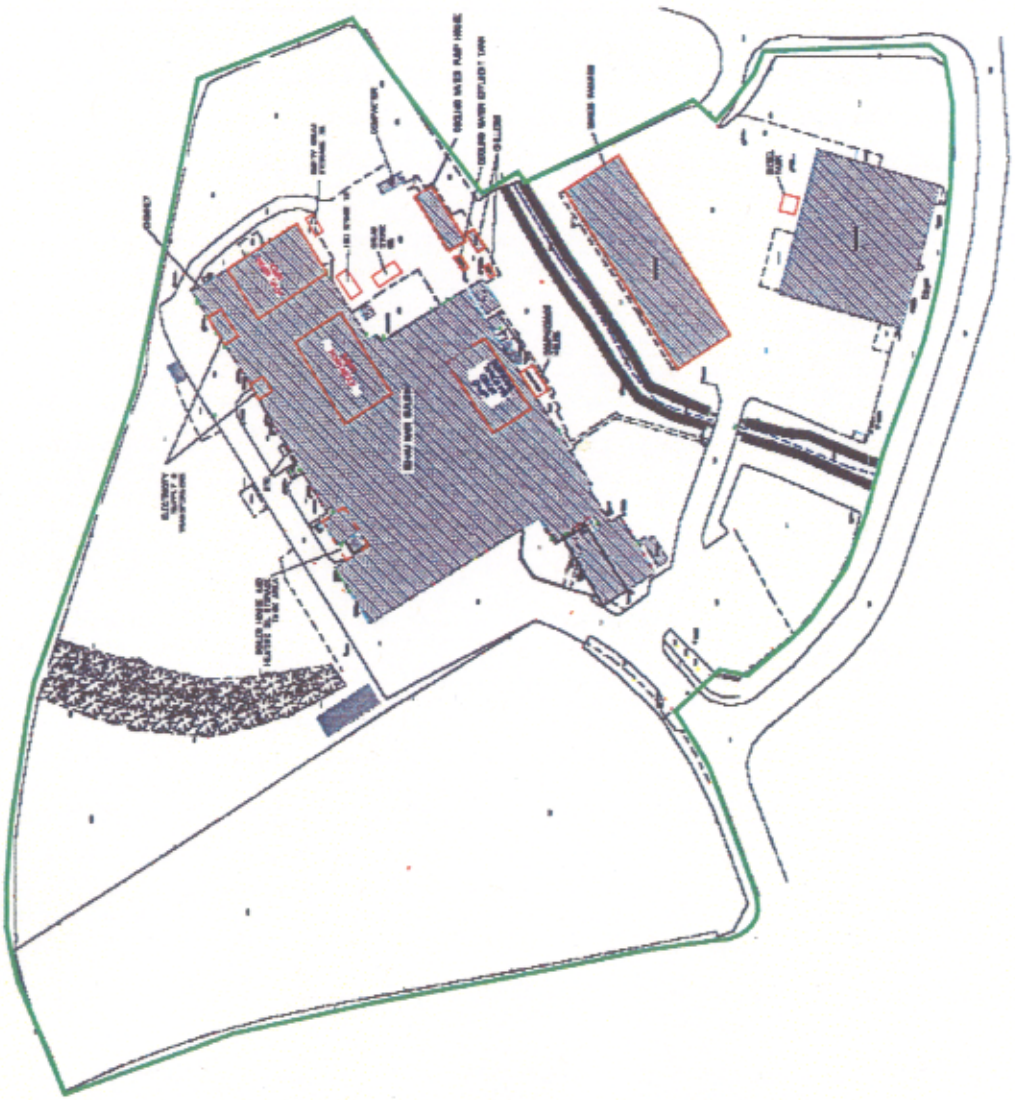
Schedule 4 - Reporting of performance data

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	
None required	

Table S4.2: Performance parameters		
Parameter	**Frequency of assessment**	**Performance indicator**
Lead stabiliser usage per unit production (uPVC)	Annual	tonne/tonne of product (on an annual basis)

Schedule 5 - Site Plan



END OF PERMIT

Reporting of Monitoring and Performance Data

Reporting of Emissions to Air for the year .....

Table A1: Reporting of Emissions to Air - period beginning 1 January each year

Parameter	Emission point	Emission limit value [6]	Result [1]	Test method [2]	Sample date and time [3]	Accreditation / Certification [4]	Uncertainty [5]	Reporting period
Particulates mg m^{-3}	A1	10		BS EN 13284-1				Every 6 months
Lead mg m^{-3}	A1	2		BS EN 14385				Every 6 months

Table A2: Reporting of Emissions to Air - period beginning 1 July each year

Parameter	Emission point	Emission limit value [6]	Result [1]	Test method [2]	Sample date and time [3]	Accreditation / Certification [4]	Uncertainty [5]	Reporting period
Particulates mg m^{-3}	A1	10		BS EN 13284-1				Every 6 months
Lead mg m^{-3}	A1	2		BS EN 14385				Every 6 months

Notes:
[1] The result given is the maximum value obtained during the reporting period, expressed in the same terms as the emission limit value.
[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given.
[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
[4] The accreditation/certification status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.
[5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.
[6] The emission limit values are expressed at reference conditions of temperature 273K, pressure 101.3kPa with no correction for water vapour or oxygen.

Signed: ..... Date: .....

(Authorised to sign as a representative of the Operator)

Reporting of Monitoring and Performance Data

Reporting of Energy Use for the year .....

Table E1: Reporting of Energy Use of the Permitted Installation

Energy Source	Energy Usage		CO_2 Produced (tonnes) [2]
	Quantity [3]	Primary Energy (MWh) [1]	
Electricity	[MWh]		
Gas Oil	[te]		
TOTAL			

Trends in Energy Usage		
Year	Parameter	
	Primary Energy (MWh) [1]	CO_2 Produced (tonnes) [2]
2006		
2007		
2008		

Note [1]: Conversion factor for delivered electricity to primary energy is 2.6.
[2]: Carbon doixide conversion factors (tonnes/MWh): for electricity (based on primary energy consumption) is 0.166; natural gas is 0.190; gas oil is 0.250.
[3]: Quantity expressed for electricity as delivered energy (MWh); natural gas and gas oil as tonnes (te).

1 MWh = 3.6GJ

Operator's comments :

Signed: ..... Date: .....

(Authorised to sign as a representative of the Operator)

Reporting of Monitoring and Performance Data

Reporting of Performance Indicators for the year .....

Table PI1(a): Reporting of Annual Production/Treatment	
None required	

Table PI1(b): Reporting of other Performance Indicators	
Parameter	**Usage (tonne/tonne) [on an annual basis]**
Lead stabiliser usage per unit production (uPVC)	

Trends in Environmental Performance			
Year	**Lead stabiliser usage per unit production (uPVC) – (te/te on an annual basis)**		
2005			
2006			
2007			

Operator's comments :

Signed: ..... Date: .....

(Authorised to sign as a representative of the Operator)

Reporting of Monitoring and Performance Data

Reporting of Waste Disposal and Recovery for the year .....

Table R1: Reporting of Waste Disposal and Recovery from the Permitted Installation

Waste Description	Disposal		Recovery
	Route	Tonnes (te)	Tonnes (te)
Hazardous wastes			
Bag filter waste containing lead stabiliser			
Other hazardous wastes			
Total hazardous waste			
Non-hazardous wastes			
Total non-hazardous waste			
TOTAL WASTE			

Trends in Waste Disposal and Recovery

Year	Parameter		
	Bag filter waste containing Pb stabiliser (te)	Total hazardous waste (te)	Total non-hazardous waste (te)
2005			
2006			
2007			

Operator's comments :

Signed: .....

Date: .....

(Authorised to sign as a representative of the Operator)