

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

MacDermid Limited

198 Golden Hillock Road
Birmingham
B11 2PN

Variation application number

EPR/VP3531XV/V004

Permit number

EPR/VP3531XV

Permit number EPR/VP3531XV

Introductory note

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

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

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

The Industrial Emissions Directive (IED) was transposed in England and Wales by the Environmental Permitting (England and Wales)(Amendment) Regulations 2013 on 27 February 2013. This variation implements the changes brought about by the IED for “existing facilities operating newly prescribed activities”.

MacDermid Limited are operating a production unit and waste transfer station at 198 Golden Hillock Road, Birmingham. The production unit comprises an acid plant, stainless steel plant, dry mix plant and Relubro plant for the manufacture of surface treatment chemicals used in the metal finishing industry. Production quantities range from 200kg to 10 tonnes. Releases to air from the operations are treated via acid, caustic and venturi scrubbers. Process waters are collected and treated prior to dispatch off-site for disposal. Uncontaminated surface waters from the roof areas are discharged to the Grand Union Canal, surface waters from other site areas are discharged to combined foul and storm sewer. Two further discharges from laboratory washings and demineralised water regeneration waste water are discharged to foul sewer and combined foul and storm sewer respectively.

The waste transfer station receives customers' waste products comprising waste metal etchant, waste electroless nickel, surplus nickel plating solution and washed, empty plastic packaging. Some of the surplus nickel plating solution is used in the production unit. The remaining waste products are stored on site prior to dispatch for off-site treatment. The waste transfer station can receive up to 2080 tonnes of metal etchants and strippers, 500 tonnes of electroless nickel solutions and surplus nickel plating solution, and 50 tonnes of waste packaging per year.

The storage of hazardous wastes in the waste transfer station has been varied to an installation activity under the Environmental Permitting (England and Wales) (Amendment) Regulations 2013 Schedule 1 Part 2 Section 5.6 Part A(1) (a) 'Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes pending any of the activities listed in Sections 5.1, 5.2, 5.3 and paragraph (b) of this Section'.

The storage of non-hazardous wastes in the waste transfer station has not been varied to an installation activity and remains a waste operation.

The schedules specify the changes made to the permit.

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

Status log of the permit		
Description	Date	Comments
Application EPR/VP3531XV/A001	Duly made 16/09/08	–
	12/01/09	Email (1), clarifying aspects of application (including surrogate monitoring method statement and planning permission)

Status log of the permit		
Description	Date	Comments
	12/01/09	Email (2), clarifying methods of scrubber liquor maintenance
	19/01/09	Email (3), clarifying the releases to sewer and controlled water and surrogate methods of process monitoring
	05/02/09	Email (4), increasing scope of waste transfer station
	09/02/09	Email (5), describing a modified dust handling system and mixing tank arrangement
Permit EPR/VP3531XV determined	16/02/09	–
Application EPR/VP3531XV/V002	Duly made 01/10/10	–
Additional Information Received	04/11/10	–
	15/11/10	–
Variation issued	23/11/10	–
Administrative Variation Application EPR/VP3531XV/V003	Duly made 24/10/11	–
Variation issued	06/01/12	–
Application EPR/VP3531XV/V004 (variation and consolidation)	Duly made 31/03/15	Application to vary and update the permit to modern conditions.
Variation determined EPR/VP3531XV (Billing ref: EP3235AS)	18/02/16	Varied and consolidated permit issued in modern condition format.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

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

Permit number

EPR/VP3531XV

Issued to

MacDermid Limited (“the operator”)

whose registered office is

198 Golden Hillock Road

Birmingham

B11 2PN

company registration number 01290882

to operate a regulated facility at

198 Golden Hillock Road

Birmingham

B11 2PN

to the extent set out in the schedules.

The notice shall take effect from 18/02/2016

Name	Date
Rebecca Warren	18/02/2016

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of the application made by the operator.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/VP3531XV

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/VP3531XV/V004 authorising,

MacDermid Limited (“the operator”),

whose registered office is

**198 Golden Hillock Road
Birmingham
B11 2PN**

company registration number 01290882

to operate an installation and waste operations at

**198 Golden Hillock Road
Birmingham
B11 2PN**

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

Name	Date
Rebecca Warren	18/02/2016

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Energy efficiency

- 1.2.1 For the following activities referenced in schedule 1, table S1.1 (A1 to A8) the operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
 - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

- 1.3.1 For the following activities referenced in schedule 1, table S1.1 (A1 to A8) the operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

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

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

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

2 Operations

2.1 Permitted activities

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

2.2 The site

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

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 tables S2.2 and S2.3; and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Hazardous waste storage and treatment

- 2.4.1 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

3 Emissions and monitoring

3.1 Emissions to water, air or land

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

3.2 Emissions of substances not controlled by emission limits

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

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
 - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

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

3.4.2 The operator shall:

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

3.5 Monitoring

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

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

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

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

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

3.6 Pests

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

3.6.2 The operator shall:

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

3.7 Fire prevention

3.7.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.

3.7.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;
- (b) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

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

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

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

4.2 Reporting

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

4.2.2 For the following activities referenced in schedule 1, table S1.1 (A1 to A8) a report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

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

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

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

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

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

4.3 Notifications

- 4.3.1 For the following activities referenced in schedule 1, table S1.1 (A1 to A8), in the event:
- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
 - (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 For the following activities referenced in schedule 1, table S1.1 (A9 to A10), the Environment Agency shall be notified without delay following the detection of:
- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;
 - (b) the breach of a limit specified in the permit; or
 - (c) any significant adverse environmental effects.
- 4.3.4 Any information provided under condition 4.3.3 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.5 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.6 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and
 - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (c) any change in the operator's name or address; and
 - (d) any steps taken with a view to the dissolution of the operator.

In any other case:

- (e) the death of any of the named operators (where the operator consists of more than one named individual);
- (f) any change in the operator's name(s) or address(es); and
- (g) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.7 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.3.8 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.4 Interpretation

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

4.4.2 For the following activities referenced in schedule 1, table S1.1 (A1 to A8), in this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately" in which case it may be provided by telephone.

4.4.3 For the following activities referenced in schedule 1, table S1.1 (A9 to A10), in this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
A1	S4.2 A(1)(a)(iv)	Producing inorganic chemicals such as salts (for example ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate, cupric acetate, ammonium phosphomolybdate)	From the receipt of raw materials, mixing of chemicals, generation and use of heat where required, to the storage of product in containers awaiting quality control clearance/ adjustment. The installation does not include the car park or offices.
A2	S4.1 A(1)(a)(xi)	Producing organic chemicals such as surface-active agents.	From the receipt of raw materials, mixing of chemicals, generation and use of heat where required, to the storage of product in containers awaiting quality control clearance/ adjustment. The installation does not include the car park or offices.
A3	S4.2 A(1)(d)	Unless falling within any other Section, any manufacturing activity (other than the application of a glaze or vitreous enamel) involving the use of, or the use or recovery of, any compound of any antimony, arsenic, beryllium, gallium, indium, lead, palladium, platinum, selenium, tellurium and thallium, where the activity may result in the release into the air of any of those elements or compounds or the release into water of any substance listed in paragraph 7 of Part 1 of this schedule.	From the receipt of raw materials, mixing of chemicals, generation and use of heat where required, to the storage of product in containers awaiting quality control clearance/ adjustment. The installation does not include the car park or offices.
A4	S5.6 A(1)(a) Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes pending any of the activities listed in Sections 5.1, 5.2, 5.3 and paragraph (b) of this Section.	R13 – storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where the waste is produced)	From receipt of waste from customers to dispatch for use within the facility or dispatch off-site for recycling/ reclamation. Storage of waste materials from customers pending re-use, recycling or

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
			reclamation. Waste types suitable for acceptance are limited to those specified in Table S2.2.
Directly Associated Activity			
A5	Raw material storage	Storage of raw materials including chemicals used in the production unit and air abatement chemicals.	From the receipt of raw materials to despatch for use within the facility.
A6	Washing, crushing and baling of empty containers	R5 – recycling/reclamation of other inorganic materials	From receipt of empty plastic containers from customers or receipt of empty containers following use of contents in the facility to despatch off-site for recovery or disposal.
A7	Process water collection, treatment and storage	Collection, treatment and storage of process water in a bulk storage tank prior to despatch off-site; Collection and discharge of laboratory washings and demineralised water regeneration waste water to sewer.	From the receipt of process water produced at the facility through treatment to despatch off site for recovery or disposal; From the receipt of laboratory washings and demineralised water regeneration waste water to sewer.
A8	Surface water collection and discharge	Collection and discharge of roof and site surface water to the Grand Union Canal or combined foul and storm sewer.	From the collection of uncontaminated roof site surface water to discharge off-site to the Grand Union Canal; From the collection of site surface water to discharge to combined foul and storm sewer.
	Waste Activities	Description of activities for waste operations	Limits of activities
A9	Temporary storage of non-hazardous waste	R13 – storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where the waste is produced)	From receipt of waste from customers to treatment within the facility or despatch off-site for recycling/reclamation. Storage of waste materials from customers pending re-use, recycling or reclamation. Waste types suitable for acceptance are limited to those specified in Table S2.3.

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
A10	Crushing and baling of empty containers	R5 – recycling/reclamation of other inorganic materials	From receipt of empty plastic containers from customers to despatch off-site for recovery or disposal. Waste types suitable for acceptance are limited to those specified in Table S2.3.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	The response in the Application to sections 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, Appendix 2 (Multi Product Protocol) and Appendix 7 (Waste BAT matrix)	16/09/08
Additional information	The techniques described in the additional information in Email (1), supplied 12/01/09	12/01/09
	The techniques described in the additional information in Email (2), supplied 12/01/09	12/01/09
	The techniques described in the additional information in Email (3), supplied 19/01/09	19/01/09
	The techniques described in the additional information in Email (4), supplied 05/02/09	05/02/09
	The techniques described in the additional information in Email (5), supplied 09/02/09	09/02/09
Application for variation	Sections 2 and 3, and Appendix C of the application document (ref. E11666.R.1.2.1.TC) in response to Parts C2 and C3 of the application form.	17/09/10
Response to Schedule 5 Notice dated 14/10/10	Response to questions 1 to 5 providing further details on the self-bunded solvent cabinets. Response to questions 6 to 10 providing further details on the bulk storage tanks for sodium and potassium hydroxide. Response to questions 11 to 16 providing further details on the bulk storage tank for sulphuric acid. Response to questions 17 to 20 providing further details on the waste storage area. Response to question 22 providing further details on the accident management plan. Response to question 23 providing a revised site plan identifying each new storage provision.	04/11/10
Additional information in response to email dated 12/11/10	Response to question 1 confirming maximum period of waste storage. Response to question 2 confirming maintenance of waste storage records.	15/11/10

Schedule 2 – Waste types, raw materials and fuels

Raw materials and fuel description	Specification
Fuel oil	Sulphur content not exceeding 0.1% by mass.

Maximum quantity	<p>Annual throughput shall not exceed:</p> <ul style="list-style-type: none"> • 2080 tonnes metal etchants and strippers • 500 tonnes electroless nickel solutions and surplus nickel plating solution <p>The maximum quantity on site at any one time shall not exceed:</p> <ul style="list-style-type: none"> • 44 tonnes in total of metal etchants and strippers, and electroless nickel solutions • 44 tonnes surplus nickel plating solutions
Waste code	Description
11	Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy
11 01	wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphatising, alkaline degreasing, anodising)
11 01 98*	other wastes containing dangerous substances (waste metal etchants and strippers, spent electroless nickel solution and surplus nickel solution)

Maximum quantity	<p>Annual throughput shall not exceed:</p> <ul style="list-style-type: none"> • 50 tonnes waste packaging <p>The maximum quantity on site at any one time shall not exceed:</p> <ul style="list-style-type: none"> • 5 tonnes waste packaging
Waste code	Description
15	Waste packaging; absorbents; wiping cloths, filter materials and protective clothing not otherwise specified
15 01	packaging (including separately collected municipal packaging waste)
15 01 02	plastic packaging (cleaned non-hazardous packs returned from customers before being removed for recycling)

Schedule 3 – Emissions and monitoring

Emission point ref. & location [2]	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in schedule 7]	Sulphuric acid scrubber vent	Ammonia	10 mg/m ³	½ hourly average	Annual [1]	US EPA Method 320
A2 [emission through the same stack as caustic scrubber at Point A3 on site plan in schedule 7]	Extraction at dusty raw materials handling area	Particulate matter	20 mg/m ³	Daily Mean	Annual [1]	BS EN 13284-1
A3 [Point A3 on site plan in schedule 7]	Caustic scrubber vent	Hydrogen chloride	10 mg/m ³	½ hourly average	Annual [1]	BS EN 1911:1998 Parts 1 to 3
		Formaldehyde	2 mg/m ³	½ hourly average	Annual [1]	US EPA Method 320
<p>Note [1] – After the first measurement, the Operator may propose, in writing, a change in monitoring frequency. If after assessment, Environment Agency gives written agreement, the Monitoring Frequency may be changed, without requiring a variation to the permit, to “on written request by Environment Agency”.</p> <p>Note [2] – In respect of condition 3.5.4, permanent means of access is not required to be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in table S3.1.</p>						

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 [Point W1 on site plan in schedule 7]	Storm water from building roof	No parameter set	No limit set	--	--	--
W2 [Point W2 on site plan in schedule 7]	Storm water from building roof	No parameter set	No limit set	--	--	--

Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S1 [Point A1 on site plan in schedule 7]	Laboratory drain	No parameter set	No limit set	--	--	--

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S2 [Point S2 on site plan in schedule 7]	Demineralised water regeneration waste water and site surface water discharge to combined foul and storm sewer	No parameter set	No limit set	--	--	--
Off-site transfer of process water by tanker	Waste washings bulk storage tank	No parameter set	No limit set	--	--	--

Table S3.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Emission points A1 and A3	Surrogate for scrubber performance: Scrubber liquor monitoring	Daily	Not applicable	Concentration measurements of sodium hydroxide and sulphuric acid
Emission points A1 and A3	Surrogate for scrubber performance: Liquor low level monitoring	Daily	Not applicable	
Emission point A2	Surrogate for venturi scrubber performance: Scrubber liquor flow monitoring	Daily	Not applicable	

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A1, A2, A3	Every 12 months	1 January

Table S4.2: Annual production/treatment	
Parameter	Units
No reporting required	tonnes

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	tonnes
Energy usage	Annually	MWh
Specific List I and List II raw material usage	Annually	kg
Waste transfer station throughput	Annually/quarterly	tonnes

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Form Air1 or other form as agreed in writing by the Environment Agency	18/02/16
Water usage	Form Usage 1 or other form as agreed in writing by the Environment Agency	16/02/09
Energy usage	Form Usage 1 or other form as agreed in writing by the Environment Agency	16/02/09
Specific List I and List II raw materials usage	Form Usage 1 or other form as agreed in writing by the Environment Agency	16/02/09
Other performance indicators and system reviews	Form Performance1 or other form as agreed in writing by the Environment Agency	16/02/09
Waste returns	E-waste returns	--

Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

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

Part A

Permit Number	EPR/VP3531XV
Name of operator	MacDermid Limited
Location of Facility	Golden Hillock Road, Birmingham
Time and date of the detection	

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

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

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

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

Part B – to be submitted as soon as practicable

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

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

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

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

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

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

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

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

“emissions to land” includes emissions to groundwater.

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

“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.

“Hazardous property” has the meaning in Annex III of the Waste Framework Directive.

“Hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 No.894, the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138), the List of Wastes (England) Regulations 2005 No.895 and the List of Wastes (Wales) Regulations 2005 No. 1820 (W.148).

“impermeable surface” means a surface or pavement constructed and maintained to a standard sufficient to prevent the transmission of liquids beyond the pavement surface.

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

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

“pests” means Birds, Vermin and Insects.

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

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

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

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

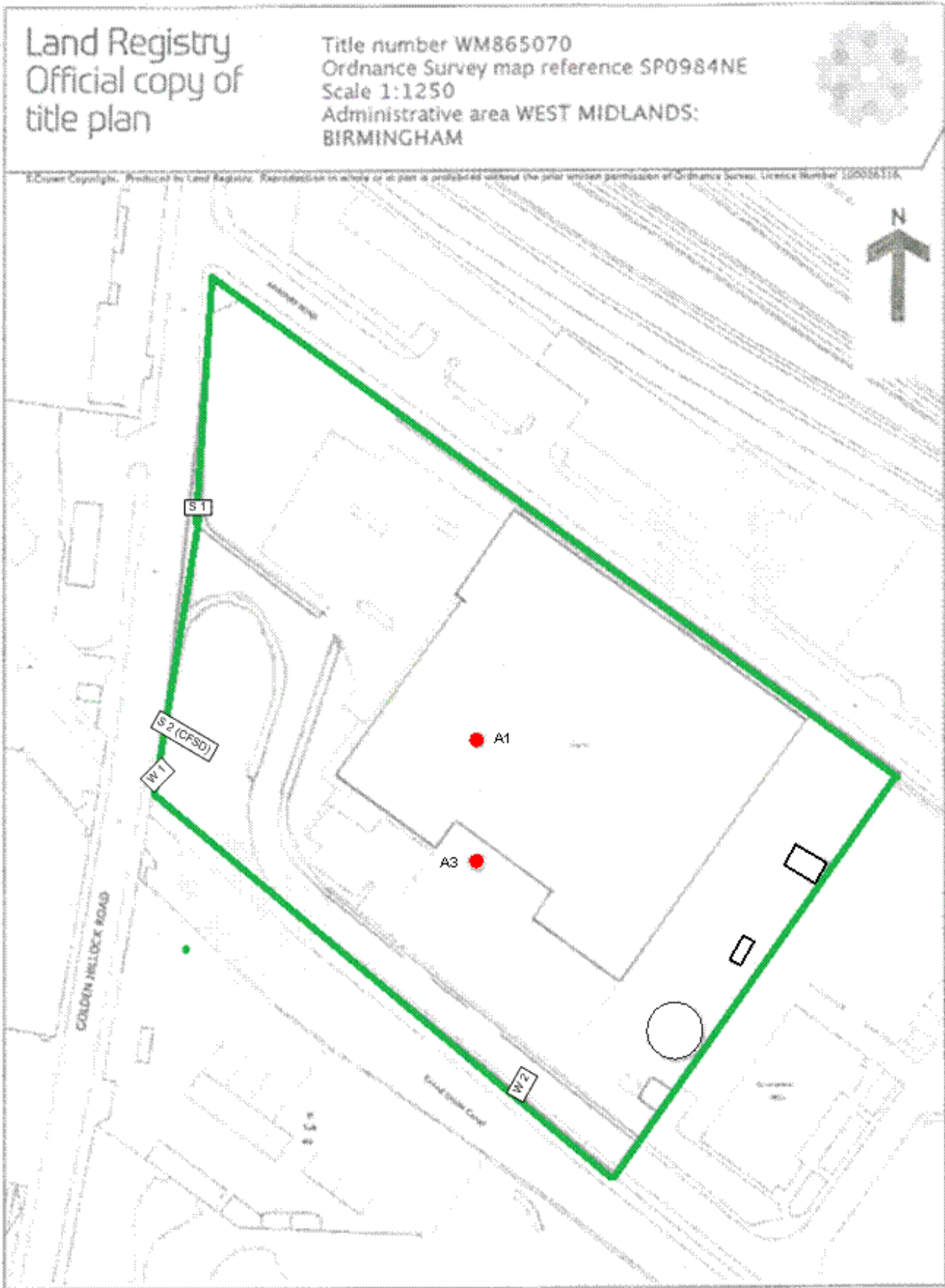
“year” means calendar year ending 31 December.

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

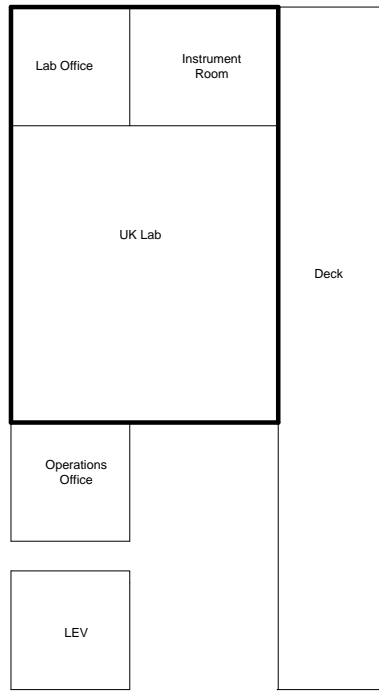
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid fuels, 3% or 5% for gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

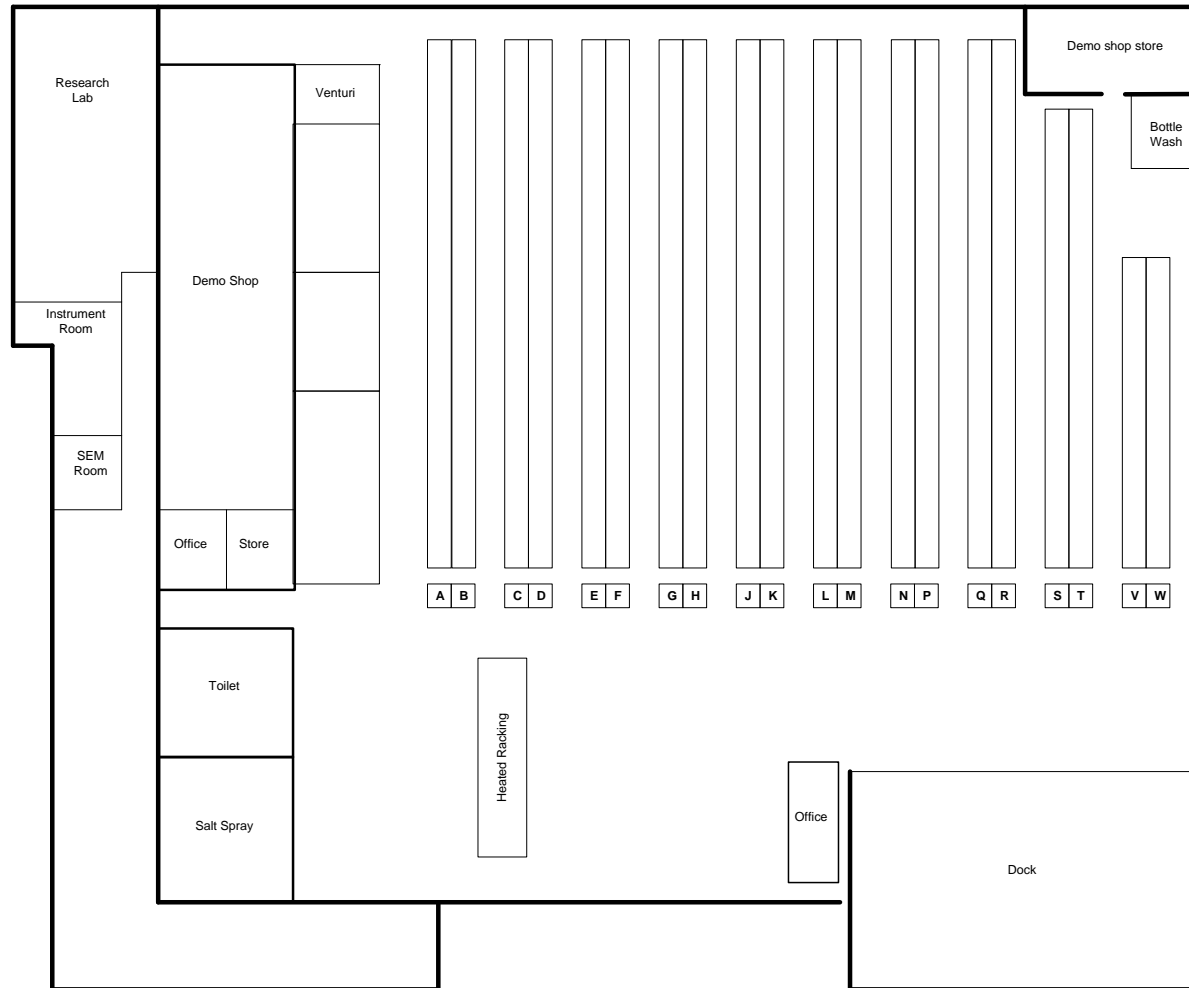
Schedule 7 – Site plans



Upper Level



Lower Level



END OF PERMIT

Permit Number: VP3531XV

Operator: MacDermid Limited

**Facility: Golden Hillock Road
Chemicals**

Form Number: Air1/18/02/16

Reporting of emissions to air for the period from DD/MM/YYYY to DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
A1	Ammonia	10 mg/m ³	½ hourly average		US EPA Method 320		
A2	Particulate matter	20 mg/m ³	Daily Mean		BS EN 13284-1		
A3	Hydrogen chloride	10 mg/m ³	½ hourly average		BS EN 1911:1998 Parts 1 to 3		
A3	Formaldehyde	2 mg/m ³	½ hourly average		US EPA Method 320		

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[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 Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

[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 uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed

Date.....

(Authorised to sign as representative of Operator)

Permit Number: **EPR/VP3531XV**

Operator: **MacDermid Limited**

Facility: **Golden Hillock Road
Chemicals**

Form Number: **Usage 1**

Reporting of usages for the year _____

Year	Water usage (t)	Energy usage (MWh)		Raw materials usage (kg)		
		Gas	Electricity	Indium	Antimony	Selenium
2009						
2010						
2011						
2012						
2013						
2014						
2015						
2016						
2017						
2018						
2019						
2020						

Operator comments:

Signed
(Authorised to sign as representative of Operator)

Date.....

