Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

M & I Materials Limited

Hibernia Way Speciality Chemical Manufacturer

Hibernia Way
Trafford Park
Manchester
M32 0ZD

Variation application number

EPR/BL9640IM/V009

Permit number

EPR/BL9640IM

Hibernia Way Speciality Chemical Manufacturer
Permit number EPR/BL9640IM

Introductory note

This introductory note does not form a part of the notice

Under the Environmental Permitting (England & Wales) Regulations 2016 (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. Only the variations specified in schedule 1 are subject to a right of appeal.

Prior to this current variation, the site operated as a single purpose chemical plant engaged in the manufacture by esterification of a speciality organic chemical (polyol ester, commercially known as MIDEL®) for use in industrial transformers and other engineering applications such as train transport.

This variation permits process changes to allow increased and varied production:

- Addition of a new reactor, T39, to Line 3 to increase production capacity. This reactor was included within the original design for the installation expansion undertaken in 2016/17 and so no modifications to utilities such as electrical, thermal oil heating or water cooling are therefore required in this variation.
- Addition of a new distillation column, T40, to Line 1 to improve the separation of ester from excess acid to provide greater flexibility for operation and increase the range of product types (synthetic esters) that can be manufactured.
- Relocation of 12m^3 stainless steel carboxylic acid storage tank, T30, from its location which will be taken by the new reactor, T39, to an external location within a new purpose-built epoxy coated chemical resistant concrete bund.
- Addition of a new acid loading system which will reside adjacent to the Line 3 reactors and will ensure that Line 3 will have its own dedicated loading system. This will decouple the dependence of Line 3 loading on Lines 1 and 2 operational timings.

This variation also corrects errors to conditions 2.3.1 and 2.3.4.

The rest of the installation continues to operate as follows:

The installation is located at the National Grid Reference SJ 78389 96292. It is located on the western edge of Trafford Park, Manchester. The installation includes three production lines for synthetic ester production. In total the installation includes eleven emission points to atmosphere and condensate plus cooling water discharge to sewer. There are no discharges to surface water or land from the installation. The installation also includes

- The storage of waste spent synthetic ester returned from customers and its subsequent recovery within the process.
- A total of 4 boilers with aggregated thermal input capacity of 8.57 MW.

The site operates an environmental management system (EMS) certified to ISO14001:2015.

M&I Materials Limited also operate two other separate permits within the same manufacturing site which are cross-referred in table ‘Other Part A installation permits relating to this installation’ of this introductory note.

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 received EPR/BL9640IM/A001	Duly made 11/09/2003	Application for the manufacture of speciality organic chemicals.
Permit determined EPR/BL9640IM/A001	26/01/2004	Original permit issued to M & I Materials Limited.
Variation application EPR/BL9640IM/V002	Duly made 01/10/2008	Application to vary permit.
Variation determined EPR/BL9640IM/V002	20/10/2008	Varied permit issued.
Additional information received	07/09/2010	An assessment of emissions to air using the methodology based on Horizontal Guidance Note H1 - Annex F (April 2010) using Acetic Acid as a proxy for all emissions. Details of the individual Thermal Input Capacity of the 3 boilers listed as A1, A2 and A9 in the Application.
Variation determined EPR/BL9640IM/V003	23/11/2010	Varied permit issued.
Variation application EPR/BL9640IM/V004	Duly made 25/08/2011	Application to vary permit.
Additional information received	25/08/2011	Completed electronic copies of OPRA spreadsheet and H1 assessment.
Variation determined EPR/BL9640IM/V004	25/11/2011	Varied permit issued.
Variation application EPR/BL9640IM/V005	Duly made 07/04/2014	Application to vary and update the permit to modern conditions.
Response to Schedule 5 Notice dated 30/04/2014	09/05/2014	-
Variation determined EPR/BL9640IM/V005 (MP3938VL)	12/06/2014	Varied and consolidated permit issued in modern condition format.
Variation application EPR/BL9640IM/V006	Duly made 14/09/2016	Application to vary permit.
Request for information	15/09/2016	Additional atmospheric modelling information.
Variation determined EPR/BL9640IM/V006	30/09/2016	Varied and consolidated permit issued in modern condition format.
Variation application EPR/BL9640IM/V007	Duly made 11/09/2018	Application to vary permit.
Variation determined EPR/BL9640IM/V007	20/12/2018	Varied permit issued.
Variation application EPR/BL9640IM/V008	Duly made 07/12/2020	Application to extend the boundary of the permit to include 6 new tanks for storage of synthetic polyol ester product.
Response to request for additional information	Received 10/12/2020	Additional information on containment features of new product tanks, drainage systems, operating techniques and limits of regulated activities.
Response to request for additional information	Received 13/01/2021	Confirmation that waste MIDEL® oil is processed only within the filtration stages of the MIDEL® – Process Lines 1, 2 and 3.

Status log of the permit		
Description	**Date**	**Comments**
Response to request for additional information	Received 19/01/2021	Revised permit boundary.
Variation determined EPR/BL9640IM/V008	25/01/2021	Varied and consolidated permit issued in modern condition format.
Application EPR/BL9640IM/V009 (variation and consolidation)	Duly made 08/04/2022	Application to vary and update the permit to modern conditions to - Add a new reactor to Line 3. - Add a new distillation column to Line 1. - Add a new acid loading system for Line 3. - Relocate acid storage tank, T30.
Additional information received	25/04/2022 and 28/04/2022	Updated redacted documents submitted following approval of claim for commercial confidentiality.
Additional information received	26/07/2022	Additional information on calculation of amounts of speciated volatile organic compounds (VOCs) used in air dispersion modelling.
Additional information received	27/07/2022 and 29/07/2022	Additional information on derivation of heptanoic acid environmental assessment levels.
Additional information received Response to Schedule 5 Notice dated 06/07/2022	17/08/2022	Additional information on: - Installation boundary and scope of variation. - Acid loading system. - Production of new ester (MIVOLT DF7). - Demonstration of compliance to Best Available Techniques (BAT). - Containment and surface water management. - Air dispersion modelling.
Additional information received	01/11/2022	Additional information on: - Operation of lines 1 to 3. - Release point to air, A3. - Increased effluent volume from new reactor. - Quantities of waste esters generated and returned to site. - Storage and recovery of waste ester-based transformer fluids. - Reporting of synthetic ester production.
Variation determined and consolidation issued EPR/BL9640IM PAS Billing Ref: DP3004MM	10/11/2022	Varied and consolidated permit issued.

Other Part A installation permits relating to this installation		
Operator	**Permit number**	**Date of issue**
M & I Materials Limited	EPR/BS4952IP	27/01/03
M & I Materials Limited	EPR/BP3930JC	31/05/18

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

Permit number

EPR/BL9640IM

Issued to

M & I Materials Limited ("the operator")

whose registered office is

Hibernia Way
Trafford Park
Manchester
M32 0ZD

company registration number 02772838

to operate a regulated facility at

Hibernia Way Speciality Chemical Manufacturer
Hibernia Way
Trafford Park
Manchester
M32 0ZD

to the extent set out in the schedules.

The notice shall take effect from 10/11/2022.

Name	Date
Vicky Patchett	**10/11/2022**

Authorised on behalf of the Environment Agency

Schedule 1

Only the following conditions have been varied by the consolidated permit EPR/KP3030TZ as a result of the application made by the operator:

- Table S1.1 as referenced by conditions 2.1.1, 2.3.1 and 2.3.7 is varied:
    - AR1 is varied to include the production of a new synthetic ester (MIVOLT DF7) and
    - AR8 is varied to include the storage and recovery of waste ester-based transformer fluids not solely waste MIDEL and confirm the processing capacity of spent ester is limited to 10 tonnes per day.
    - AR1 – AR3 (limits of specified activities) is varied to remove the reference to MIDEL as the only natural ester than cannot readily be separated from the regulated activities.
- Table S1.2 as referenced by conditions 2.3.1 and 2.3.2 is varied to include new operating techniques.
- Table S1.3 as referenced by condition 2.4.1 is varied to include new improvement conditions.
- Table S3.1 as referenced by conditions 3.1.1, 3.5.1 and 3.5.4 is varied to define the parameters of the release from the emission points and update the description of their source.
- Table S4.2 as referenced by condition 4.2.2 is varied to require the reporting of production of synthetic and natural esters but solely synthetic and natural MIDEL.
- Schedule 7 as referenced by condition 2.2.1 is varied to include a new site plan and installation emissions location plan.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/BL9640IM

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BL9640IM/V009 authorising,

M & I Materials Limited ("the operator"),

whose registered office is

Hibernia Way
Trafford Park
Manchester
M32 0ZD

company registration number 02772838

to operate an installation at

Hibernia Way Speciality Chemical Manufacturer
Hibernia Way
Trafford Park
Manchester
M32 0ZD

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

Name	Date
Vicky Patchett	**10/11/2022**

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.

1.2 Energy efficiency

1.2.1 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 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").

2.2 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 table S2.2; 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.

Hazardous waste storage and treatment

2.3.7 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.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.1.3 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 and S3.2.

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 tables S3.1 and S3.2 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 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, if during that quarter the total amount accepted exceeds 100 tonnes of non-hazardous waste or 10 tonnes of hazardous waste.

4.3 Notifications

4.3.1 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 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where 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.

4.3.4 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:

(a) any change in the operator's name or address; and

(b) any steps taken with a view to the dissolution of the operator.

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

(a) 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.

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

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

(a) a decision by the Secretary of State not to re-certify the agreement;

(b) a decision by either the operator or the Secretary of State to terminate the agreement; and

(c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

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

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex I and II operations**	**Limits of specified activity and waste types**
AR1	S4.1 A(1)(a)(ii) Producing organic chemicals such as organic compounds containing oxygen (for example alcohols, aldehydes, ketones, carboxylic acids, esters, ethers, peroxides, phenols, epoxy resins).	MIDEL® – Process Line 1 Esterification of fatty acids to produce synthetic polyol ester (commercially known as MIDEL®). MIVOLT DF7® – Process Line 1 Esterification of fatty acids to produce synthetic polyol ester (commercially known as MIVOLT DF7®)	From receipt of raw materials to storage of product prior to despatch, including physico-chemical separation of raw materials and reaction products. The activities include the production of natural esters by physico-chemical separation processes that cannot be readily separated from the regulated activities because they make use of process equipment which are part of Process Lines 1 – 3. Non-regulated production of natural esters by dedicated physico-chemical separation equipment to be kept separate from regulated activities. Synthetic polyol esters produced by specified regulated activities not to be mixed with natural esters produced on site by non-regulated processes.
AR2		MIDEL® – Process Line 2 Esterification of fatty acids to produce synthetic polyol ester (commercially known as MIDEL®).	
AR3		MIDEL® – Process Line 3 Esterification of fatty acids to produce synthetic polyol ester (commercially known as MIDEL®).	

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**
	Directly Associated Activity		
AR4	Raw materials and product storage	Bulk/IBC raw material and product storage, decant and loading filling operations	From receipt of raw materials to their use within the regulated activities.
AR5	Waste storage pending disposal	Storage of process wastes pending collection and disposal off site.	From generation to storage of wastes generated by the regulated process pending their collection and disposal offsite.
AR6	Process cooling	Operation of evaporative cooling equipment in support of process cooling and condensing equipment.	From cooling water make-up, dosing of chemicals for cooling water conditioning, to blowdown discharge to sewer (emission point S1).
AR7	Generation of process heat	4 Gas fired Boilers supplying the MIDEL® plant of: - 0.9 MW; - 1.46 MW, existing MCP - 2.21 MW, existing MCP; and - 4 MW, existing MCP.	From receipt of fuels to the point of use of heat in the process.
AR8	Storage and recovery of waste ester-based transformer fluids.	Waste operations: storage of returned spent synthetic ester from customers for re-processing by filtration. R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced). R3: Recycling / reclamation of organic substances which are not used as solvents.	From receipt of waste synthetic ester to addition to the filtration stage of process lines 1, 2 and 3. Waste types as specified in Table 2.2. Process capacity of spent ester to be limited to less than 10 tonnes of hazardous waste per day. Maximum annual throughput: 200 tonnes per year.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application for Variation EPR/BL9640IM/V008	The response to questions in section 3 Operating techniques in form C3 and supporting document titled 'Permit Variation Main Application - M&I Materials' (including all the appendixes), dated 02/10/2020, including consolidated description of operating techniques for the installation.	Duly made 07/12/2020
Application for Variation EPR/BL9640IM/V008 Additional information	Email received from Steve Power on 10/12/2020 in response to request for additional information issued on 07/12/2020, including additional information on containment features of new product tanks introduced by variation V008, drainage systems, operating techniques and limits of regulated activities.	Received 10/12/2020
Application EPR/BL9640IM/V009	Technical standards and operating techniques included in Sections: - 1b (About the proposed changes). - 3 (Operating techniques). of the application document "M&I Materials Environmental Permit Variation Application" (September 2021) provided in response to section 3a – technical standards, Part C3 of the application form.	Duly made 08/04/2022
Response to Schedule 5 Notice dated 06/07/2022.	Operating techniques described in the responses to the Notice (including accompanying information): - Response to question 4 on operation of acid loading system. - Response to question 5 on the production of new ester, MIVOLT DF7. - Response to question 9 on operation of containment system for new reactor, T39. - Response to questions 11 – 14 on the management of site liquid effluent.	17/08/2022
Additional information received	Sequencing and operation of production lines 1 – 3.	01/11/2022

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC 2	The Operator shall submit a written report to the Environment Agency on the commissioning of the changes linked to variation EPR/BL9640IM/V006 in line with pre-operational condition PO1 commissioning protocol.	Superseded [Variation EPR/BL9640IM/V008]

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC3	The Operator shall submit a written report to the Environment Agency for written approval that defines the speciation and compositions of volatile organic compounds (VOCs) released from the site. The report must demonstrate that sufficient analyses have been undertaken to ensure the speciation of the VOCs is correct and fully represents the worst case of emissions of VOCs following implementation of the process changes authorised in permit variation notice, EPR/BL9640IM/V009. The report shall assess the potential impact of the discharge of these VOCs on human health receptors and compare the findings with those proposed in the application documentation for permit variation, EPR/BL9640IM/V009. Should the potential impact differ from that proposed in the application documentation for EPR/BL9640IM/V009, the report shall include a demonstration (using air dispersion modelling, the Environment Agency's risk assessment H1 tool or equivalent) that the impact on human health receptors is not significant. The report shall include recommendations for process or equipment changes or additional abatement to reduce VOC releases where appropriate. The Operator shall implement any agreed recommendations within the timescales approved by the Environment Agency.	31/03/2023
IC4	The Operator shall submit a written report to the Environment Agency for written approval that defines the speciation and compositions of contaminants in site process effluent discharged through release point S1. The report must demonstrate that sufficient analyses have been undertaken to ensure the speciation of the contaminants in process effluent is correct and fully represents the composition of site effluent following implementation of the process changes authorised in permit variation notice, EPR/BL9640IM/V009. The report shall assess the potential impact of the effluent discharge on relevant receptors and compare the findings with those proposed in the application documentation for permit variation, EPR/BL9640IM/V009. Should the potential impact differ from that proposed in the application documentation for EPR/BL9640IM/V009, the report shall include a demonstration (using water quality modelling, the Environment Agency's risk assessment H1 tool or equivalent) that the impact on relevant receptors is not significant. The report shall include recommendations for process or equipment changes or additional abatement to reduce contaminants in effluent releases where appropriate. The Operator shall implement any agreed recommendations within the timescales approved by the Environment Agency.	30/04/2023

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
-	-

Table S2.2 Permitted waste types and quantities	
Maximum quantity	Storage capacity shall not exceed **30 tonnes**.
Waste code	**Description**
13	**OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19)**
13 03	**waste insulating and heat transmission oils**
13 03 09*	readily biodegradable insulating and heat transmission oils - only waste synthetic ester for recovery.

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (incl. unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method (1)**
A1 [Point A1 on site plan in Schedule 7]	Oxides of nitrogen (NO and NO_2 expressed as NO_2) Carbon monoxide (CO)	0.9 MW Boiler 1	No limit set	--	--	-
A2 [Point A2 on site plan in schedule 7]	Oxides of nitrogen (NO and NO_2 expressed as NO_2) Carbon monoxide (CO)	1.46 MW Boiler 2	No limit set	--	--	-
A3 [Point A3 on site plan in schedule 7]	Particulates	Dust extraction (mixing area)	No limit set	--	--	-
A4 [Point A4 on site plan in schedule 2]	Volatile organic compounds (VOCs) (Fatty acids)	Evaporator vacuum pump line 1	No limit set	--	--	-
A5 [Point A5 on site plan in schedule 7]	Volatile organic compounds (VOCs) (Fatty acids)	Evaporator vacuum pump line 2	No limit set	--	--	-
A6 [Point A6 on site plan in schedule 7]	Volatile organic compounds (VOCs) (Fatty acids)	Reactor scrubber line 1	No limit set	--	--	-
A7 [Point A7 on site plan in schedule 7]	Volatile organic compounds (VOCs) (Fatty acids)	Reactor scrubber line 2	No limit set	--	--	-

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (incl. unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method (1)**
A9 [Point A9 on site plan in schedule 7]	Oxides of nitrogen (NO and NO_2 expressed as NO_2) Carbon monoxide (CO)	2.21 MW Boiler 3	No limit set	--	--	-
A10 [Point A10 on site plan in schedule 7]	Oxides of nitrogen (NO and NO_2 expressed as NO_2) Carbon monoxide (CO)	4 MW thermal input capacity Boiler 4	No limit set	--	--	Permanent sampling access not required
A11 [Point A11 on site plan in schedule 7]	Volatile organic compounds (VOCs) (Fatty acids)	Reactor scrubber line 3	No limit set	--	--	-
A12 [Point A12 on site plan in schedule 7]	Volatile organic compounds (VOCs) (Fatty acids)	Evaporator vacuum pump line 3	No limit set	--	--	-
Vents from tanks T1 to T4 [Point A12 on site plan in schedule 7]	No parameters set	Storage tanks T1 to T4	No limit set	--	--	-
Vents from tanks T31 and T32	No parameters set	Storage Tanks for Midel® en 1204 (T31), and Midel® 7131 (T32)	No limit set	--	--	-
Vents from tank T19	No parameters set	Storage Tank for Rapeseed Oil (T19)	No limit set	--	--	-
Vents from tank T33 to T38	No parameters set	Storage Tanks for Midel® 7131	No limit set	--	--	-

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (incl. Unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
S1 on site layout plan in schedule 7 emission to United Utilities Davyhulme WWTW	No parameter set	Condenser on reactor and cooling tower and uncontaminated surface water runoff via interceptors and isolation valve.	No limit set	--	--	--

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**
-	-	-	-

Table S4.2: Annual production/treatment	
Parameter	**Units**
Synthetic ester production	Tonnes
Natural ester production Note 1	Tonnes
Notes 1. Annual production of natural esters to be reported only for natural esters produced within process lines – Process Lines 1, 2, 3 (activities reference AR1, AR2 and AR3 of Table S1.1).	

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Water usage	Annually	tonnes
Energy usage	Annually	MWh
Hazardous Waste	Annually	Tonnes of waste per tonne of product

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	23/11/2010
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	23/11/2010
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	25/01/2021
Waste Returns	As agreed in writing by the Environment Agency	-

Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

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

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(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	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
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 breach of permit conditions not related to limits	
To be notified within 24 hours of detection	
Condition breached	
Date, time and duration of breach	
Details of the permit breach i.e. what happened including impacts observed.	
Measures taken, or intended to be taken, to restore permit compliance.	

(d) 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.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

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

“existing medium combustion plant” means a medium combustion plant

(a) put into operation before 20th December 2018, or

(b) for which an environmental permit was granted before 19th December 2017, provided that the plant is put into operation no later than 20th December 2018;

“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 lll of the Waste Framework Directive as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016 as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“Hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“List of Wastes” means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016

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

“Medium Combustion Plant” or “MCP” means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW.

“Medium Combustion Plant Directive” or “MCPD” means Directive 2015/2193/EU of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“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.

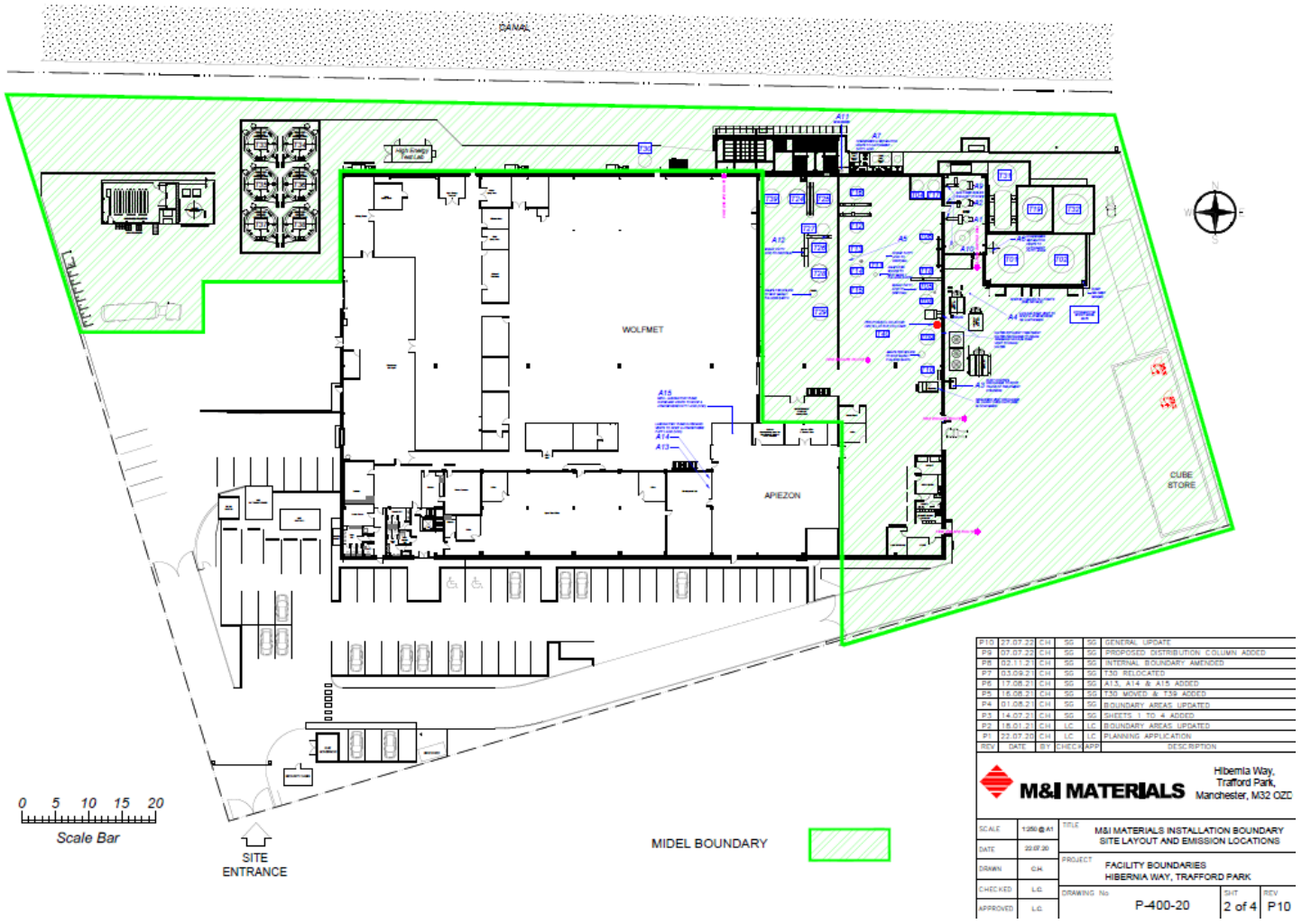
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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 and 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.

“year” means calendar year ending 31 December.

Schedule 7 – Site plan



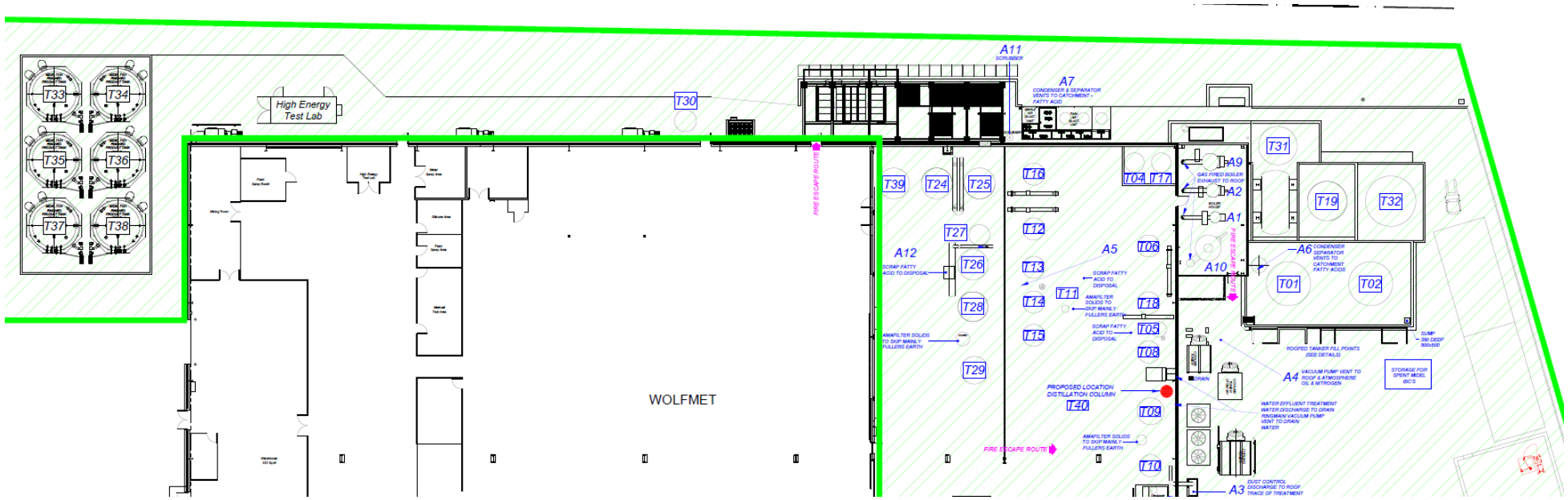
REV	DATE	BY	CHECK	APP	DESCRIPTION
P10	27.07.22	CH	SG	SG	GENERAL UPDATE
P9	07.07.22	CH	SG	SG	PROPOSED DISTRIBUTION COLUMN ADDED
P8	02.11.21	CH	SG	SG	INTERNAL BOUNDARY AMENDED
P7	03.09.21	CH	SG	SG	T30 RELOCATED
P6	17.08.21	CH	SG	SG	A13, A14 & A15 ADDED
P5	16.08.21	CH	SG	SG	T30 MOVED & T39 ADDED
P4	01.06.21	CH	SG	SG	BOUNDARY AREAS UPDATED
P3	14.01.21	CH	SG	SG	SHEETS 1 TO 4 ADDED
P2	18.01.21	CH	LC	LC	BOUNDARY AREAS UPDATED
P1	22.07.20	CH	LC	LC	PLANNING APPLICATION

M&I MATERIALS

Hibernia Way,
Trafford Park,
Manchester, M32 0ZD

SCALE	1:250 @ A1	TITLE	M&I MATERIALS INSTALLATION BOUNDARY SITE LAYOUT AND EMISSION LOCATIONS
DATE	22.07.20		
DRAWN	C.H.	PROJECT	FACILITY BOUNDARIES HIBERNIA WAY, TRAFFORD PARK
CHECKED	L.C.	DRAWING No	P-400-20
APPROVED	L.C.	SHT	2 of 4
		REV	P10

Installation emissions location plan



END OF PERMIT