



Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Lenzing Fibers Grimsby Limited
Grimsby Lyocell Fibers Factory
Energy Park Way
Grimsby
DN31 2TT

Variation application number

EPR/SP3936HE/V004

Permit number

EPR/SP3936HE

Grimsby Lyocell Fibers Factory

Permit number EPR/SP3936HE

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.

The installation is operated by Lenzing Fibers Grimsby Limited, a subsidiary of Lenzing AG in Austria and the installation facilities are leased from the owner of the site.

This variation is for the addition of the following listed activity under Schedule 1 Part 1 of The Environmental Permitting (England and Wales) Regulations 2016:

Section 5.4 Part A(1)(a)(i) – Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving biological treatment.

The biological effluent treatment plant (ETP) reduces the key water quality pollutant levels before it discharged to the Humber Estuary. This phase 1 of the project is aimed at reducing the biological and phosphate load in the effluent. The biological treatment system includes balance tanks, anoxic tanks, bioreactor and membrane bioreactor. The biomass generated is partly recirculated and the remaining is de-watered by screw presses and fed into skips to be disposed of to a licensed waste operator for land spreading. The cross-linker effluent – from the production of cross-linking agents (AR2) is pre-treated before combining with the main effluent in the balance tank. This pre-treatment involves alkali, acid and coagulant feed, followed by dissolved air floatation (DAF) (for pre-treating cross linker effluent stream). The sludge from the DAF is removed and sent to landfill.

Phase 2 of the project will be designed to further improve the quality of the effluent. The second phase will be initiated after the operator has gathered the necessary performance data from Phase 1 operation which will enable them to choose the technology for further treatment.

The composition of the effluent requiring treatment has not changed, and existing effluent pits and physico-chemical treatment continue to be in use. The construction of the ETP is considered complete at the end of Phase 2 of the ETP project. On completion of the ETP construction at the end of Phase 2, the effluent composition must meet the CWW BAT-AELs.

The rest of the installation remains the same and is operated as follows:

The main activity on the installation is the production of lyocell polymer fibres using wood pulp and a non-volatile organic solvent, N-methyl morpholine-N-oxide (NMMO). Further processing of these fibres includes conditioning and drying, with solvent recovery being an important part of this process. There are air emission points on the installation, mainly associated with fume extraction, which emit small quantities of 4-methyl morpholine oxide, hydrogen chloride, PEG dilaurate, 3-butoxypropan-2-ol and carbon dioxide. Abatement equipment is operated to remove acidic gases, amines and NMMO from the emissions to air. Aqueous effluent from the installation is combined and adjusted for pH and then transferred to the ETP for biological processing prior to discharge to the Humber Estuary via a discharge pipe shared with the other operators on the site. Monitoring of the effluent is undertaken prior to joining this shared discharge pipe and may contain NMMO derivatives, suspended solids, COD and phosphorus. There is no connection to sewer from the site.

The installation is located at the south west corner of the South Humberside Industrial Estate, located at Great Coates, approximately 2 km west of the outskirts of Grimsby. The installation is approximately 0.5 km from the

Humber Estuary which is a designated Special Protection Area (SPA), Special Area of Conservation (SAC), Ramsar Site and Site of Special Scientific Interest (SSSI). A land drain, the Mawbridge drain, runs near the site approximately 10 metres from the eastern limit of the installation, receiving most of the surface drainage for the site. The site is bordered by agricultural land to the north west and south west and by industrial developments to the north east and south east. A man-made lake of approximately 1.5 hectares is located outside the south west perimeter of the site having been created as a fire pond in 1999.

The Lenzing facility shares the site with three other installations and receives site services such as electricity, steam, potable and demineralised water from one of these.

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/EP3235LZ	Duly made 14/03/2006	
Request for extension to determination	11/07/2006	Response to request dated 05/07/2006.
Additional information received	29/08/2006	Response to request dated 26/07/2006.
Permit determined EPR/EP3235LZ	21/11/2006	
Application EPR/SP3936HE/T001 (full transfer of permit EPR/EP3235LZ)	Duly made 24/12/2010	
Transfer determined EPR/SP3936HE	05/01/2011	
Environment Agency variation determined EPR/SP3936HE/V002	13/12/2013	Environment Agency variation to implement the changes introduced by Industrial Emissions Directive (IED).
Application EPR/SP3936HE/V003	Duly made 22/03/2018	Application for new chemical processing unit (A200)
Additional information received	02/08/2018 & 03/08/2018	Additional information on the volume and composition of aqueous effluents from A200 process.
Additional information received	10/08/2018	Response to Schedule 5 notice dated 29/06/2018
Additional information received	29/10/2018	Response to Schedule 5 notice dated 10/10/2018
Additional information received	15/11/2018	Additional information on hydrolysis tank area containment, storage of Reagent 1 and site plan.
Additional information received	30/11/2018	Additional information on monitoring of emissions to air/water from release points on site and new site plan submitted.
Additional information received	04/12/2018	Updated site plan submitted.
Permit determined EPR/SP3936HE	15/01/2019	Varied and consolidated notice issued to Lenzing Fibers Grimsby Limited.
Application EPR/SP3936HE/V004 (variation and consolidation)	Duly made 24/10/2024	Application to vary the permit for addition of biological treatment to the effluent treatment plant (ETP)
Additional information received	24/01/2025	Response to Schedule 5 notice dated 17/01/2025
Additional information received	28/01/2025	Response to RFI dated 09/01/2025.

Status log of the permit		
Description	Date	Comments
Additional information received	30/01/2025	Additional information regarding NGR of the point of effluent discharge.
Additional information received	25/02/2025 27/02/2025	Response to RFI dated 14/02/2025 regarding stability of the underground tank/interceptor pit and MSDS of chemicals used in the ETP.
Additional information received	15/05/2025	Response to RFI dated 11/04/2025.
Additional information received	02/07/2025 04/07/2025 09/07/2025 11/07/2025	Response to RFI dated 02/06/2025.
Additional information received	17/09/2025	Response to RFI dated 11/09/2025 regarding secondary containment for ETP tanks.
Additional information received	22/09/2025 23/09/2025	Response to RFI dated 18/09/2025 confirming - the protection provided for ETP tanks, - summary of spill response plan, - disposal route of RO membrane cleaning liquid waste - chemical usage for RO membrane cleaning
Additional information received	21/11/2025 04/12/2025	Information received regarding - ETP performance update and - Timeline and design concept for Phase 2
Variation determined and consolidation issued EPR/SP3936HE/V004	16/12/2025	Varied and consolidated permit issued in modern format

Other Part A installation permits relating to this installation		
Operator	Permit number	Date of issue
Technical Absorbents Limited	RP3632NX	15/07/2013
Blue Star Fibers Company Limited	VP3335LK	23/03/2007
Bring Energy Limited	DP3338DC	23/08/2016

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/SP3936HE

Issued to

Lenzing Fibers Grimsby Limited (“the operator”)

whose registered office is

Energy Park Way

Grimsby

DN31 2TT

company registration number 05709148

to operate a regulated facility at

Lenzing Fibers Grimsby Limited

Energy Park Way

Grimsby

DN31 2TT

to the extent set out in the schedules.

The notice shall take effect from 16/11/2025.

Name	Date
Sandra Cavill	16/12/2025

Authorised on behalf of the Environment Agency

Schedule 1

The following conditions were varied as a result of the application made by the operator:

Table S1.1 as referred to in condition 2.1.1 has been varied to amend AR3 to reflect addition of new activity.

Table S1.2 as referred to in conditions 2.3.1 and 2.3.2 has been varied to include additional operating techniques.

Table S1.3 as referred to in condition 2.4.1 has been varied to include new improvement conditions IC13 & IC14.

Table S3.2 as referred to in conditions 3.1.1, 3.5.1 and 3.5.4 has been varied and split into two tables S3.2A & S3.2B, with limits for Phase 1 and Phase 2 of ETP project.

Table S4.1 as referred to in condition 4.2.3 has been varied to amend monitoring for emission point W301.

Schedule 7 as referred to in condition 2.2.1 has been updated with the new site plan

The following conditions were varied as a result of an Environment Agency initiated variation:

Table S1.3 as referred to in condition 2.4.1 has been varied to include IC15 which supersedes IC8 and IC8-IC12 have been marked as not applicable.

Table S3.1 as referred to in conditions 3.1.1, 3.5.1 and 3.5.4 has been varied to remove emission point V200.

Table S4.1 as referred to in condition 4.2.3 has been varied to remove monitoring for emission point V200.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number**EPR/SP3936HE**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/SP3936HE/V004 authorising,

Lenzing Fibers Grimsby Limited (“the operator”),

whose registered office is

Energy Park Way

Grimsby

DN31 2TT

company registration number 05709148

to operate an installation at

Lenzing Fibers Grimsby Limited

Energy Park Way

Grimsby

DN31 2TT

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

Name	Date
Sandra Cavill	16/12/2025

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 red 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 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.
- 2.3.5 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 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 The operator shall submit an annual solvent management plan in order to demonstrate compliance with the requirements of the Industrial Emissions Directive, by 31 January each year in respect of the previous year.

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.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) 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.

- 4.3.5 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	Limits of specified activity
AR1	Section 4.1 Part A(1)(a)(viii) Producing organic chemicals such as plastic materials (for example polymers, synthetic fibres and cellulose-based fibres)	Producing cellulose-based fibres from wood pulp.	From receipt of raw materials to storage of fibres.
AR2	Section 4.1 Part A(1)(a)(iv) Producing organic chemicals such as organic compounds containing nitrogen.	Producing cross linking agents from raw materials.	From receipt of raw materials to production, storage and transport on site of cross-linking agents.
AR3	Section 5.4 Part A(1)(a)(i) Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving biological treatment	<u>Biological treatment</u> <ul style="list-style-type: none"> - Biological treatment comprising two stage anoxic tanks and aerobic bioreactor Ultrafiltration membrane separation system <u>Physico-chemical treatment</u> Main Process effluent: <ul style="list-style-type: none"> - pH adjustment Cross linker effluent stream: <ul style="list-style-type: none"> - pH adjustment - Flocculation - Dissolved air floatation Combined effluent: <ul style="list-style-type: none"> - Screening - Balance tanks 	From receipt of raw effluent stream from Main Plant production and Cross Linker production to discharge of treated effluent into the River Humber via existing discharge outfall. Main process effluent includes effluent neutralisation plant liquor, including washings from Ion Exchange Process, which is stored and pH adjusted prior to biological treatment. Cross linker effluent stream is pre-treated by pH adjustment, flocculation, and dissolved air floatation (DAF) before combining with the main plant stream.
Directly Associated Activity			
AR4	Solvent recovery	Recovery of solvent by evaporation	Recovery of solvent (N-methyl morpholine-N-oxide) from listed activity for reuse in the listed activity.
AR5	Storage and handling of raw materials	Offloading, storage and transfer on site of all process raw materials	From receipt and storage of raw materials to transfer to process areas.
AR6	Chilling and cooling operations	Provision of independent cooling system for process cooling.	Operation of process cooling systems throughout the installation.
AR7	Product handling	On site storage and transfer to process line	From generation of product to on site storage and transfer to process line.

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR8	Air abatement system	Abatement systems for treatment of process gaseous emissions	From receipt of gaseous effluent from process reaction and hydrolysis reaction into water scrubber and discharge of abated gases to atmosphere.
AR9	Aqueous abatement system	Abatement system for treatment of process aqueous emissions	From receipt of effluents into hydrolysis tanks and discharge of hydrolysed materials into site effluent system.
AR10	Recovery system	Online re-concentration of product using reverse osmosis.	From receipt of unfixed reagent to its concentration, return of concentration reagent to process and discharge of effluent (permeate) to site effluent.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application EPR/EP3223LZ	The response to questions in section 2.1 and 2.2 in the application.	14/03/2006
Receipt of additional information to the application	The response to questions 1, 2, 5 and 6 of the requests for further information.	24/08/2006
Application EPR/SP3936HE/V003	Operating techniques described in Document "C3 3a Table 3 – Technical Standards" provided in response to Section 3a (Technical Standards) of Part C3 of Application Form. Operating techniques included in documents: <ul style="list-style-type: none"> - C3 3b(i)-(iii): Fugitive Emissions, Odour, Noise Assessments; - C3 3d Appendix 2: A200 Technical Process Description - C3 4a&b: Emissions, Monitoring and Sample Locations; - C3 6d&e: Raw Materials & Waste 	Duly Made 22/03/2018
Response to Schedule 5 Notice dated 29/06/2018	Operating techniques described in the responses to the Notice (including accompanying information): <ul style="list-style-type: none"> - Response 1(b) & 11 on site drainage; - Response 2 on control of emissions to air; - Response 5 on control and management of discharges to water; - Responses 6 – 8 on containment and bunding; - Responses 9 – 10 on delivery, offloading and spillage control of Reagent 1; - Response 12 on odour control; - Response 13 on noise control; - Responses 14 – 15 on systems to demonstrate Best Available Techniques (BAT); - Response 16 on operation of the hydrolysis process; 	10/08/2018

Table S1.2 Operating techniques		
Description	Parts	Date Received
	<ul style="list-style-type: none"> - Response 17 on management and control of bad batches; - Response 18 on dust filter change systems; - Response 19 on storage, handling and use of sulphuric acid; - Response 21 on storage, handling and use of Reagent 2. 	
Response to Schedule 5 Notice dated 10/10/2018	<p>Operating techniques described in the responses to the Notice (including accompanying information):</p> <ul style="list-style-type: none"> - Responses 3 & 8 on containment and bunding; - Response 4 on management and control of hydrolysis reaction; - Response 5 on storage and handling of Reagent 1; - Response 6 on management of spillages of Reagent 1; - Response 7 on management and control of relief line from reactor to ensure minimisation of potential for venting to atmosphere. 	29/10/2018
Additional information	<p>Operating techniques described in the responses to the Request for Further Information issued on 06/11/2018:</p> <ul style="list-style-type: none"> - Response 3 on management of rainwater collected within the hydrolysis tanks containment area; - Response 4 on the operating of a cascade system between the A200 process area bund and the hydrolysis tanks containment area; - Response 6 on the storage and handling of Reagent 1. 	15/11/2018
Additional information	Operating techniques relating to monitoring aqueous and gaseous releases from point sources on site.	30/11/2018
Application EPR/SP3936HE/V004	<ul style="list-style-type: none"> - Technical standards in relation to Best available techniques as described in BAT conclusions under Directive 2010/75/EU of the European Parliament and of the Council, for common waste water and waste gas treatment/management systems in the chemical sector. BAT Conclusion numbers 1 to 12 provided in document titled 'Technical Summary'. - Odour Management Plan - Process Description of the ETP - Site Specific Risk Assessment - Waste Management from the WwTP 	Duly made 24/10/2024
Response to Schedule 5 Notice dated 17/01/2025	<ul style="list-style-type: none"> - Response 1(c) – method for ensuring that the chemicals which are collected and fed back to the dosing cabinet are not contaminated with other substances - Response 1(e) – Procedure for the collection and removal of rainwater, from areas in which it may be contaminated. 	24/01/2025
Additional information	Points 1 to 4 in the email response from Mr. E. Akande dated 22/09/2025 confirming the measures to prevent as well as manage any failure of the ETP tanks.	22/09/2025

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	<p>The Operator shall carry out a water efficiency audit as identified in the application for IPPC permit, with regard to the requirements set out in Section 2.4.3 of the Agency Guidance Note IPPC S4.02, April 2003. A written report detailing the methodology used together with proposals for a time-tabled plan for implementing water reduction shall be submitted to the Agency.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on written approval of the report being received from the Agency.</p>	Complete
IC2	<p>The Operator shall carry out an assessment of training needs to identify the posts for which specific environmental awareness training is needed. The scope and level of this training shall be incorporated into the Operator's training systems. A written summary of the assessment, along with a timetable for delivery of training to existing posts identified by the assessment, shall be submitted to the Agency.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the summary and timetable.</p>	Complete
IC3	<p>A written procedure shall be submitted to the Agency detailing the measures to be used so that monitoring equipment, personnel and organisations employed for the emissions monitoring programme shall have either MCERTS certification or accreditation unless otherwise agreed in writing in accordance with condition 3.6.3. The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the procedure.</p> <p>The procedure shall be implemented by the Operator from the date of approval in writing by the Agency.</p>	Complete
IC4	<p>The Operator shall submit a time-table for implementation of measures to improve energy efficiency as identified in answer to question B2.7.7 of the application for IPPC permit.</p>	Complete
IC5	<p>The Operator shall carry out a waste minimization audit as identified in the application for IPPC permit, with regard to the requirements set out in Section 2.4.2 of the Agency Guidance Note IPPC S4.02, April 2003. A written report detailing the methodology used together with proposals for a time-tabled plan for implementing improvements shall be submitted to the Agency.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on written approval of the report being received from the Agency.</p>	Complete
IC6	<p>The Operator shall develop a written Site Closure Plan with regard to the requirements set out in Section 2.11 of the Agency Guidance Note IPPC S4.02, April 2003. Upon completion of the plan a summary of the document shall be submitted to the Agency in writing.</p>	Complete
IC7	<p>The Operator shall review the use of sodium phosphate in the fibre treatment process and investigate methods for the reduction of phosphate in the effluent discharged from the site.</p> <p>A written report detailing the findings of the review, along with a time-scale for implementation of improvements, shall be submitted to the Agency.</p> <p>The notification requirements of condition 2.5.2 shall be deemed to have been complied with on submission of the report.</p>	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC8	<p>The Operator shall submit a written report to the Environment Agency for technical assessment and approval. The report must contain:</p> <ul style="list-style-type: none"> - a review of the results of a combined direct toxicity assessment, ensuring liaison with all operators that discharge effluent into the joint outfall pipe in the Humber Estuary, - the measures to comply with the requirements of guidance: The direct toxicity assessment of aqueous environmental samples using the marine copepod <i>Tisbe battagliai</i> lethality test, <p>and must</p> <ul style="list-style-type: none"> • include proposals to include mitigation measures/reduce the effluent toxicity, should the assessment show this to be necessary. <p>The report must contain dates for the implementation of any individual measures proposed.</p> <p>The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the report.</p> <p>The Operator must implement the measures described in the report as approved, and from the date stipulated by the Environment Agency.</p>	No longer applicable. Superseded by IC15
IC9	<p>The Operator shall carry out a programme of analysis for cyanuric acid in the site effluent discharged via the shared effluent pipeline and submit the data along with a revised H1 assessment which uses the monitored discharge data to the Environment Agency for approval. Should this assessment indicate that a specific cyanuric acid emission limit value is required for the effluent discharge, the Operator shall propose an emission limit value to the Environment Agency for approval. The data used within the assessment shall be based upon twelve months of consecutive monthly monitoring.</p>	No longer applicable
IC10	<p>The Operator shall carry out a sampling and monitoring trial of effluent discharged following the hydrolysis stage of the process to confirm that full treatment to hydrolysis products has occurred prior to discharged. The data used within the assessment shall be based upon twelve months of consecutive monthly monitoring. The Operator shall submit a report on the outcome of this trial to the Environment Agency for approval.</p>	No longer applicable
IC11	<p>The Operator shall undertake a noise assessment during normal operations when all site activities are in operation in accordance with the procedures given in BS4142:2014 (Rating industrial noise affecting mixed residential and industrial areas) and BS7445: 2003 (Description and measurement of environmental noise) or other methodology as agreed with the Environment Agency, in order to validate the noise assessment provided within the application.</p> <p>The assessment shall include, but not be limited to:</p> <ul style="list-style-type: none"> • A review of the noise sources from the facility (where any noise source(s) are identified as exhibiting tonal contributions, they shall be quantified by means of a frequency analysis); • Considerations of on-site vehicle movements; • The cumulative effect of different items of plant and equipment working concurrently. <p>A written report shall be provided to the Environment Agency for approval detailing the findings of the assessment including comparisons with background levels in the locality and any potential impact that the installation is likely to have on identified sensitive receptors. Where specific recommendations are made in the report to pursue improved noise attenuation measures or associated management, inspection, monitoring and maintenance regimes, a suitable time-scale for implementation and periodic review shall be included.</p> <p>The proposals shall be implemented by the Operator from the date of approval in writing by the Environment Agency.</p>	No longer applicable

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC12	<p>The Operator shall submit a written procedure to the Environment Agency for approval that outlines how HCl (hydrogen chloride) shall be monitored from emission point, V200. The procedure shall ensure that monitoring equipment, personnel and organisations employed for this emissions monitoring shall have either MCERTS certification or accreditation unless otherwise agreed in writing in accordance with condition 3.5.3. The procedure shall be implemented by the Operator from the date of approval in writing by the Environment Agency.</p>	No longer applicable
IC13	<p><u>Emissions to surface water</u></p> <p>The operator shall submit a written report to the Environment Agency for technical assessment and written approval.</p> <p>The report must contain:</p> <ul style="list-style-type: none"> • The results from 12 months of sampling and monitoring of the ETP treated effluent discharge (emission point W301 in the site plan) at a frequency of a minimum of one sample a month • Characterisation of the effluent monitoring including but not limited to the parameters listed in Table S3.2B • Evidence that the sampling and monitoring has been undertaken in line with the Environment Agency guidance: Surface water pollution risk assessment for your environmental permit - GOV.UK (www.gov.uk) and to standards in line with the Environment Agency guidance: Monitoring discharges to water: guidance on selecting a monitoring approach - GOV.UK (www.gov.uk) • The results of an H1 assessment, and raw monitoring data which informs this assessment, which takes into consideration relevant environmental standards as specified in Environment Agency guidance Surface water pollution risk assessment for your environmental permit - GOV.UK (www.gov.uk) • Where the results of the H1 assessment show that significant/adverse impact is likely from the emissions of any of the parameters, the operator shall provide proposals and timescales on how to manage the effluent to ensure discharges have an acceptable impact on receiving waters. <p>The Operator must implement the proposals in the report in line with the timescales are agreed in writing with the Environment Agency.</p>	15 months from the beginning of operations of activity AR3
IC14	<p><u>Compliance with BAT-AELs after commissioning of Phase 2 of the WwTP Project</u></p> <p>The operator shall submit a written report to the Environment Agency for information only, regarding initiation of Phase 2 of the WwTP project. The report shall consist of -</p> <ul style="list-style-type: none"> • Identification of substances requiring additional treatment systems for meeting CWW BAT-AELs i.e. the emission limits which are stated in Table S3.2B in this permit. • Proposals to manage these substances including additional treatment techniques and timescales of implementation. • Estimated concentration of these substances following completion of Phase 2 project. • Confirmation that the additional treatment techniques will enable the ETP to be fully compliant with the ELVs provided in Table S3.2B of this permit. <p>The operator must implement the proposals in the report in line with the timescales as agreed in writing with the Environment Agency.</p>	18 months from the beginning of operations of AR3.

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC15	<p>The Operator shall submit a written report to the Environment Agency for technical assessment and written approval. The report must contain:</p> <ul style="list-style-type: none"> - a review of the results of a combined direct toxicity assessment, ensuring liaison with all operators that discharge effluent into the joint outfall pipe in the Humber Estuary, - the measures to comply with the requirements of guidance: The direct toxicity assessment of aqueous environmental samples using the marine copepod <i>Tisbe battagliai</i> lethality test, <p>and must</p> <ul style="list-style-type: none"> • include proposals to include mitigation measures/reduce the effluent toxicity, should the assessment show this to be necessary. <p>The report must contain dates for the implementation of any individual measures proposed.</p> <p>The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the report.</p> <p>The Operator must implement the measures described in the report as approved, and from the date stipulated by the Environment Agency.</p>	Within 18 months from the date of issue of the permit.

Schedule 2 – Waste types, raw materials and fuels

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

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location (Notes 1, 2)	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
V5	Delivery scrubber vent	Hydrogen chloride	No limit set	-	-	Permanent sampling access not required
V64	Transfer scrubber vent	Hydrogen chloride	No limit set	-	-	Permanent sampling access not required
V46	Filter cleaning area	No parameters set	No limit set	-	-	Permanent sampling access not required
V6, V7	Bag filter air exhaust	No parameters set	No limit set	-	-	Permanent sampling access not required
V25, V27	Spin machine extraction lines 3 & 4	Amines (as dimethylamine)	10 mg/m ³	Hourly mean	Monthly	Lenzing Method T9127
V100	A100 steam treating process	No parameters set	No limit set	-	-	Permanent sampling access not required
V39, V40	Discharge from stream dryers	Total VOC (as carbon)	No limit set	15 minute mean	Annually	BS EN 12619/ BS EN 13526
V50	Vacuum pyrolysis vent	Total VOC (as carbon)	No limit set	15 minute mean	Annually	BS EN 12619/ BS EN 13526
V56	Solvent jet cleaning EVD exhaust	Total VOC (as carbon)	No limit set	15 minute mean	Annually	BS EN 12619/ BS EN 13526
E1 to E14	Emergency vents for polymer plants and spinning machines	No parameters set	No limit set	-	-	Permanent sampling access not required
Note 1: All air emission point locations are indicated on IPPC vent & stack location diagram 1, appendices to application.						

Table S3.2A Point Source emissions to water (other than sewer) and land – interim emission limits and monitoring requirements ^{Note 1}						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment Plant	Total weekly flow	35,000 m ³ /week	7 day integrated	Continuous	MCERTS self-monitoring of effluent flow scheme

Table S3.2A Point Source emissions to water (other than sewer) and land – interim emission limits and monitoring requirements ^{Note 1}						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment Plant	pH	6 - 10	Continuous	Continuous	BS 6068-2.50
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment Plant	Temperature	35°C maximum	Continuous	Continuous	Calibrated temperature probe
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment Plant	Total amines (N-methyl morpholine and amine derivatives)	8 tonnes/week	Calculated from weekly flow proportional composite sample	Weekly	Lenzing method T9140 HPLC (as application)
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment Plant	Chemical Oxygen Demand	1500 kg/day	24-hour flow proportional sample	Daily	BS ISO 15705 / Lenzing method T9119 ^{Note 2}
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment Plant	Total Suspended Solids	175 kg/day	24-hour flow proportional sample	Daily	BS EN 872 / Lenzing Method T9121 ^{Note 2}
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment Plant	Total Nitrogen	125 kg/day	24-hour flow proportional sample	Daily	BS EN 12260 ^{Note 2}
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment Plant	Adsorbable organically bound halogens	5 kg/day	24-hour flow proportional sample	Monthly	BS EN ISO 9562
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment Plant	Chromium	0.125 kg/day	24-hour flow proportional sample	Monthly	BS EN 1233
W301 on site plan in schedule 7 emission to	Effluent Treatment Plant	Copper	0.25 kg/day	24-hour flow proportional sample	Monthly	BS EN ISO 15586

Table S3.2A Point Source emissions to water (other than sewer) and land – interim emission limits and monitoring requirements ^{Note 1}

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
River Humber						
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment Plant	Nickel	0.25 kg/day	24-hour flow proportional sample	Monthly	BS EN ISO 15586
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Zinc	1.5 kg/day	24-hour flow proportional sample	Monthly	BS EN ISO 15586
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Iron	5 kg/day	24-hour flow proportional sample	Monthly	BS EN ISO 15586
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Oil and grease	No visible oil or grease	-	-	-
W302 – W305 on site plan in schedule 7 emission to Mawbridge drain	Roof and roadway storm water	No parameters set	-	-	-	-

Note 1: This table is for interim limits which are applicable from the issue of permit variation, EPR/SP3936HE/V004, until completion of Phase 2 of the ETP project.

Note 2: A monitoring standard as agreed in writing with the Environment Agency.

Table S3.2B Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements ^{Note1}

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment Plant	Total weekly flow	35,000 m ³ /week	7 day integrated	Continuous	MCERTS self-monitoring of effluent flow scheme

Table S3.2B Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements ^{Note1}						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	pH	6 - 10	Continuous	Continuous	BS 6068-2.50
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment Plant	Temperature	35°C maximum	Continuous	Continuous	Calibrated temperature probe
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Total amines (N-methyl morpholine and amine derivatives)	8 tonnes/week	Calculated from weekly flow proportional composite sample	Weekly	Lenzing method T9140 HPLC (as application)
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Chemical Oxygen Demand (COD)	300 mg/l ^{Note3}	24-hour flow proportional sample	Daily ^{Note12}	BS ISO 15705 / Lenzing method T9119 ^{Note 2}
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Total Suspended Solids (TSS)	35 mg/l ^{Note4}	24-hour flow proportional sample	Daily ^{Note12}	BS EN 872 / Lenzing Method T9121 ^{Note 2}
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Total Nitrogen (TN)	25 mg/l ^{Note5}	24-hour flow proportional sample	Daily ^{Note12}	BS EN 12260 ^{Note 2}
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Total Phosphorous (TP)	3 mg/l ^{Note6}	24-hour flow proportional sample	Daily ^{Note12}	BS EN ISO 15681 -1/2 Or BS EN ISO 6878 Or Lenzing method T9155 colorimetric method ^{Note 2}
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Adsorbable organically bound halogens (AOX)	1 mg/l ^{Note7}	24-hour flow proportional sample	Monthly ^{Note12}	BS EN ISO 9562

Table S3.2B Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements ^{Note1}						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Chromium (Cr)	0.025 mg/l ^{Note8}	24-hour flow proportional sample	Monthly ^{Note12}	BS EN 1233
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Copper (Cu)	0.05 mg/l ^{Note9}	24-hour flow proportional sample	Monthly ^{Note12}	BS EN ISO 15586
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Nickel (Ni)	0.05 mg/l ^{Note10}	24-hour flow proportional sample	Monthly ^{Note12}	BS EN ISO 15586
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Zinc (Zn)	0.3 mg/l ^{Note11}	24-hour flow proportional sample	Monthly ^{Note12}	BS EN ISO 15586
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Iron	1 mg/l	24-hour flow proportional sample	Monthly	BS EN ISO 15586
W301 on site plan in schedule 7 emission to River Humber	Effluent Treatment plant	Oil and grease	No visible oil or grease	-	-	-
W302 – W305 on site plan in schedule 7 emission to Mawbridge drain	Roof and roadway storm water	No parameters set	-	-	-	-
<p>Note 1: The limits provided in this table applies after completion of Phase 2 of the ETP project.</p> <p>Note 2: A monitoring standard as agreed in writing with the Environment Agency.</p> <p>Note 3: Emission limit value for COD and associated monitoring requirements do not apply if emissions of COD are confirmed to be below 10tonnes/year in response to IC13.</p> <p>Note 4: Emission limit value for TSS and associated monitoring requirements do not apply if emissions of TSS are confirmed to be below 3.5tonnes/year in response to IC13.</p> <p>Note 5: Emission limit value for TN and associated monitoring requirements do not apply if emissions of TN are confirmed to be below 2.5tonnes/year in response to IC13.</p>						

Table S3.2B Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements ^{Note1}						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
<p>Note 6: Emission limit value for TP and associated monitoring requirements do not apply if emissions of TP are confirmed to be below 300kg/year in response to IC13.</p> <p>Note 7: Emission limit value for AOX and associated monitoring requirements do not apply if emissions of AOX are confirmed to be below 100kg/year in response to IC13.</p> <p>Note 8: Emission limit value for Cr and associated monitoring requirements do not apply if emissions of Cr are confirmed to be below 2.5kg/year in response to IC13.</p> <p>Note 9: Emission limit value for Cu and associated monitoring requirements do not apply if emissions of Cu are confirmed to be below 5.0kg/year in response to IC13.</p> <p>Note 10: Emission limit value for Ni and associated monitoring requirements do not apply if emissions of Ni are confirmed to be below 5.0kg/year in response to IC13.</p> <p>Note 11: Emission limit value for Zn and associated monitoring requirements do not apply if emissions of Zn are confirmed to be below 30kg/year in response to IC13.</p> <p>Note 12: The monitoring frequencies may be reduced with written agreement from the Environment Agency if the data series clearly demonstrate a sufficient stability.</p>						

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
Point source emissions to air Parameters as required by condition 3.5.1	V25, V27	Every 3 months	1 January, 1 April, 1 July, 1 October
Point source emissions to air Parameters as required by condition 3.5.1	V39, V40, V50, V56	Every 12 months	1 January
Point source emissions to water (other than sewer) Parameters as required by condition 3.5.1	W301	Every 3 months	1 January, 1 April, 1 July, 1 October

Table S4.2: Annual production/treatment	
Parameter	Units
Production of Lyocell fibers	tonnes

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	m ³
Specific water usage	Annually	m ³ /tonne product
Energy usage	Annually	MWh/tonne product
Steam	Annually	Tonnes/tonne product
Effluent released to Humber Estuary per tonne of product	Annually	m ³ /tonne

Table S4.4 Reporting forms		
Parameter	Reporting form	Form version number and date
Point source emissions to air	Emissions to Air Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Point source emissions to water (other than sewer)	Emissions to Water Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Water usage	Water Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Energy usage	Energy Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Other performance parameters	Other Performance Parameters Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021

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.

“emissions to land” includes emissions to groundwater.

“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 or background concentration limit.

“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.

“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.

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

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

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 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.



Emissions to Air Reporting Form

Permit number: EPR/SP3936HE

Operator: Lenzing Fibers Grimsby Limited

Facility name: Grimsby Lyocell Fibers Limited

Emissions to Air Reporting Form: version 1, 08/03/2021

Reporting of emissions to air for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method ¹	Result ²	Sample dates and times ³	Uncertainty ⁴
<i>[e.g. A1]</i>	<i>[e.g. Oxides of nitrogen (NO and NO₂ expressed as NO₂)]</i>	<i>[e.g. 200 mg/m³]</i>	<i>[e.g. daily average]</i>	<i>[e.g. BS EN 14181]</i>	<i>[State result]</i>	<i>[State relevant dates and time periods]</i>	<i>[State uncertainty if not 95% confidence interval]</i>

Signed: *[Name]*

Date: *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

- ¹ Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
- ² Give the result as 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, give the result as the 'minimum to maximum' of the measured values.
- ³ For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
- ⁴ Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Emissions to Water Reporting Form

Permit number: EPR/SP3936HE

Operator: Lenzing Fibers Grimsby Limited

Facility name: Grimsby Lyocell Fibers Limited

Emissions to Water Reporting Form: version 1, 08/03/2021

Reporting of emissions to water (other than to sewer) for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method ¹	Result ²	Sample dates and times ³	Uncertainty ⁴
<i>[e.g. W1]</i>	<i>[e.g. Total suspended solids]</i>	<i>[e.g. 30 mg/l]</i>	<i>[e.g. For 95% of all measured values of periodic samples taken over one month]</i>	<i>[e.g. BS EN 872:2005]</i>	<i>[State result]</i>	<i>[State relevant dates and time periods]</i>	<i>[State uncertainty if not 95% confidence interval]</i>

Signed: *[Name]***Date:** *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

- ¹ Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
- ² Give the result as 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, give the result as the 'minimum to maximum' of the measured values.
- ³ For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
- ⁴ Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Water Usage Reporting Form

Permit number: EPR/SP3936HE

Operator: Lenzing Fibers Grimsby Limited

Facility name: Grimsby Lyocell Fibers Limited

Water Usage Reporting Form: version 1, 08/03/2021

Reporting of water usage for the year [YYYY]

Water source	Water usage (m ³)	Specific water usage (m ³ /unit) ²
Mains water	<i>[insert annual usage in m³ where mains water is used]</i>	<i>[insert annual usage in m³/unit where mains water is used]</i>
Site borehole	<i>[insert annual usage in m³ where water is used from a site borehole]</i>	<i>[insert annual usage in m³/unit where water is used from a site borehole]</i>
River abstraction	<i>[insert annual usage in m³ where abstracted river water is used]</i>	<i>[insert annual usage in m³/unit where abstracted river water is used]</i>
Other – <i>[specify other water source where applicable. Add extra rows where needed]</i>	<i>[insert annual usage in m³ where applicable]</i>	<i>[insert annual usage in m³/unit where applicable]</i>
Total water usage	<i>[insert total annual water usage in m³]</i>	<i>[insert total annual water usage in m³/unit]</i>

Operator's comments

Signed: *[Name]*

Date: *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your annual water usage.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

Energy Usage Reporting Form

Permit number: EPR/SP3936HE

Operator: Lenzing Fibers Grimsby Limited

Facility name: Grimsby Lyocell Fibers Limited

Energy Usage Reporting Form: version 1, 08/03/2021

Reporting of energy usage for the year [YYYY]

Energy source	Energy consumption / production (MWh)	Specific energy consumption (MWh/unit) ²
Electricity imported as delivered - source [specify source, e.g. supplied from the national grid]	<i>[insert annual consumption in MWh where electricity is imported]</i>	<i>[insert annual consumption in MWh/unit where electricity is imported]</i>
Electricity imported as primary energy 1 – conversion factor of [specify conversion factor used to convert electricity delivered to primary energy]	<i>[insert annual consumption in MWh where electricity is imported]</i>	<i>[insert annual consumption in MWh/unit where electricity is imported]</i>
Natural gas	<i>[insert annual consumption in MWh where natural gas is used]</i>	<i>[insert annual consumption in MWh/unit where natural gas is used]</i>
Gas oil – conversion factor of [specify conversion factor used to convert tonnes to MWh]	<i>[insert annual consumption in MWh where gas oil is used]</i>	<i>[insert annual consumption in MWh/unit where gas oil is used]</i>
Imported heat	<i>[insert annual consumption in MWh where heat is imported]</i>	<i>[insert annual consumption in MWh/unit where heat is imported]</i>
Other – <i>[specify other energy source and conversion factors where applicable, e.g. renewable fuel. Add extra rows where needed]</i>	<i>[insert annual consumption in MWh where applicable]</i>	<i>[insert annual consumption in MWh/unit where applicable]</i>
Electricity exported	<i>[insert annual production in MWh where electricity is exported]</i>	Not applicable
Heat exported	<i>[insert annual production in MWh where heat is exported]</i>	Not applicable

Operator's comments**Signed:** *[Name]***Date:** *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your annual energy usage.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

¹ Multiply delivered electricity by 2.4 to convert to primary energy where the electricity is supplied from the national grid. If the electricity is supplied from another source, specify the conversion factor used. Add additional rows as needed if electricity is imported from multiple sources.

² Divide energy consumption by an appropriate unit of raw material processed or product output.

Other Performance Parameters Reporting Form**Permit number:** EPR/SP3936HE**Operator:** Lenzing Fibers Grimsby Limited**Facility name:** Grimsby Lyocell Fibers Limited**Other Performance Parameters Reporting Form: version 1, 08/03/2021**Reporting of other performance parameters for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Parameter	Units
<i>[e.g. Total raw material usage]</i>	<i>[e.g. tonnes per production unit]</i>

Operator's comments

Signed: *[Name]***Date:** *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report the performance parameters (other than water and energy) required by your permit. Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. The parameters to report and units to be used can be found in the 'Performance parameters' table in schedule 4 of your permit. Add additional rows as necessary.