

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Spartan UK Limited

Ropery Road
Teams
Gateshead
Tyne and Wear
NE8 2RD

Variation application number

EPR/WP3339PY/V006

Permit number

EPR/WP3339PY

Gateshead Hot Rolling Mill

Permit number EPR/WP3339PY

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.

Main features of the installation

Spartan UK Ltd operate a steel processing plant to manufacture hot rolled steel plate from bulk steel slabs. The plant is located on an industrial site close to other business premises and residential housing and is surrounded by a busy road network servicing the Gateshead area. The site has 2 local nature reserves within 1500metres, 11 local wildlife sites within a radial search of approximately 2000metres and 1 ancient woodland (name unknown) within approximately 2000metres. Residential housing is located approximately 200 metres to the East of the site, in recent years additional residential housing developments have been built to the North (70 metres), North East (150metres) and South (100metres) of the site. The manufacturing process involves the hot rolling of purchased slab steel into plate of various widths and thicknesses to suit customer specific requirements. Steel slabs of up to 30 tonnes are cut into different sizes depending upon the capability of equipment and customer requirements. This is effected using a semi-automated slab-cutting table, which utilises a high temperature oxy-propane jet to provide a fast and accurate cut. Further slab preparation (welding or grinding) is also often required to remove surface imperfections such as cracks and folds, which might otherwise compromise the rolled plate quality.

Following initial cutting and preparation, slab is preheated to a temperature of around 1300 degrees C in natural gas-fired static furnaces. The combustion products from these furnaces, which contain significant levels of NOx and some particulate matter, are vented to atmosphere unabated.

Oxidised scale formed on the slab surface is removed prior to rolling by passing the hot slab through a series of high pressure cold fresh water quench sprays. Scale from the descaling process along with the water is channelled into a pit adjacent to the rolling mill. Larger scale particles settle out into a skip and smaller particles remain in water as suspended solids. This scale/water slurry is pumped through to an effluent treatment plant (ETP) for treatment, a percentage of which is recycled in roll cooling and flushing operations with the excess being discharged into the river Team

Immediately after descaling the slab is repeatedly passed through a Four High Reversing Plate Mill, progressively compressing the steel to the required width and thickness. Up to 25 passes through the mill can be required to produce thinner-gauge plates, the slab being subjected to multiple passes through the descaling sprays whilst it does so to minimise scale build up and hence roll wear during the rolling stage.

The Work Rolls are cooled top and bottom by the direct application of controlled cooling water. To ensure smooth operation the Mill and associated conveyors and systems require significant oil and grease, some of this inevitably ends up in the ETP where it is separated and removed from the treatment water.

The rolled plate under 30mm thickness is cut head and tail whilst still hot, before being left to cool naturally. All other edge trimming is performed on either online or offline burners. Product designated for specialist applications is further heat treat (normalised) and product designated for high quality applications is cold-roll finished to level and to remove deviations within the plate.

The most significant environmental impact from the installation arises from emission of NOx to air and the liquid effluent discharged to the river Team. One emission point to surface water exists (D1) and eight emission points to air exist. Only two of these; A1 (Gibbons Furnace) and A5 (Regenerative Reheat Stack Furnace) have emission limits values (ELVs) prescribed. Overall energy usage within the process is seen as being comparable with BAT. Fugitive emissions of dust, noise and vibration appear to have the potential for

nuisance impact. The Operator employs indicative BAT to control vibration and noise. Dampening feet have been fitted to the Bronx Leveller and scrap skips are sited on wooden sleepers. To help minimise potential nuisance noise roller shutter doors are fitted to production buildings, fork lift trucks (FLT's) are fitted with white sound reversing beepers and a voluntary adjustment to outside working is employed. To minimise any build-up of particulates from manufacturing operations dust is cleaned up on a regular basis and sent for disposal.

Changes introduced by this variation

This variation makes the following changes to the permit:

- Installation of an additional regenerative reheat batch furnace (RISCO) and as a consequence of this add an additional emission point (A9) to table S3.1
- Update site plan to include all emission points.

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
Permit determined WP3339PY	Issued 16/03/05	Original permit issued to Spartan UK Ltd.
Variation UP3233LB (EPR/WP3339PY/V002)	Issued 14/12/05	-
Variation XP3438UL (EPR/WP3339PY/V003)	Issued 26/06/07	-
Application EPR/WP3339PY/V004	Withdrawn 2011	EA initiated variation for noise and vibration withdrawn 2011.
Application EPR/WP3339PY/V005	Duly made 02/08/17	-
Additional information requested 11/08/2017	Received 24/08/17	Additional information for air modelling report requested post AQMAU submission checks
Permit determined EPR/WP3339PY/V005	01/11/2017	Varied and consolidated permit issued in modern format
Application EPR/WP3339PY/V006	Duly made 25/09/20	Application to add new reheating batch furnace called the RISCO.
Variation determined EPR/WP3339PY/V006	Issued 06/05/20	Varied permit issued

End of introductory note

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/WP3339PY

Issued to

Spartan UK Limited (“the operator”)

whose registered office is

Ropery Road

Teams

Gateshead

Tyne and Wear

NE8 2RD

Company registration number 4140355

to operate a regulated facility at

Gateshead Hot Rolling Mill

Ropery Road

Teams

Gateshead

Tyne and Wear

NE8 2RD

to the extent set out in the schedules.

The notice shall take effect from 06/05/2020

Name	Date
Anne Lloyd	06/05/2020

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit EPR/WP3339PY/V006.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/WP3339PY

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/WP3339PY/V006 authorising,

Spartan UK Limited (“the operator”),

whose registered office is

Ropery Road

Teams

Gateshead

Tyne and Wear

NE8 2RD

company registration number 4140355

to operate an installation at

Gateshead Hot Rolling Mill

Ropery Road

Teams

Gateshead

Tyne and Wear

NE8 2RD

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

Anne Lloyd	06/05/2020
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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 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.

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 Total annual emissions from the emission point(s) set out in schedule 3 tables S3.1 and S3.2 of a substance listed in schedule 3 table S3.4 shall not exceed the relevant limit in table S3.4.
- 3.1.4 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.

3.5 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.

4.3 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 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 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.

4.4 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 2.1 A(1)(c):	Processing ferrous metals and their alloys by using hot-rolling mills with a production capacity of more than 20 tonnes of crude steel per hour.	Receipt of crude steel slab to despatch of rolled plate.
Directly Associated Activity			
AR2	-	Raw materials handling and storage	Receipt and storage of steel slab feedstock for use within the listed activity.
AR3	-	Surface rectification and initial cutting of slab feedstock.	Preparation and cutting of slab feedstock in either of two designated areas within the installation.
AR4	-	Preheating of slab in gas-fired furnaces.	Preheating of slab feedstock in either of 5 furnaces (Gibbons Reheat Pusher Furnace, HCT Reheat Batch Furnace, RGen Reheat Batch Furnace, NCS Regenerative Reheat Batch Furnace and RISCO Reheat Batch Furnace)
AR5	-	Descaling of hot plate	Scale removal prior to rolling using primary then secondary descaling units located adjacent to rolling mill.
AR6	-	Edging and trimming of rolled plate.	Using hot shears, online and offline oxy-propane burners, hand held burning or grinding equipment.
AR7	-	Cooling of rolled plate	Various locations within installation.
AR8	-	Cold finishing operations	Includes cold levelling and grinding of cold rolled plate
AR9	-	Secondary heat treatment operations	Heating and controlled cooling of plate in one of two heat treatment furnaces (NCS and SAS furnace)
AR10	-	Product handling	Storage of cold rolled plate prior to dispatch.
AR11	-	Waste storage and handling	Production of waste to dispatch from installation.
AR12	-	Effluent Treatment Plant	Treatment of oil and scale contaminated water from rolling mill operations to point of recycle back to process or discharge into river Team
AR13	-	Services.	Air compressors and cooling towers
AR14	-	Storage and handling of secondary raw materials	Receipt of materials to use within the installation
AR15	-	Engineering Activities	Cleaning and overhaul of engineering equipment to reuse within the process

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Application for an environmental permit Part C3 – Variation to a Bespoke Installations Permit. Sections 1a, 2, 3a Technical Standards, Part B. A1, C2, F1 and non-technical summary. C3 Section 3a – Table 3 Technical Standards completed. Reference to TGN M1 for stack monitoring, Air Quality standard regulations 2010, DEFRA NOx Ground Area Maps during completion. 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 on industrial emissions for “Ferrous Metals Processing Industry” Adopted/published 12/2001. <i>(Operational Techniques reviewed and updated to current status by the Operator at Variation EPR/WP3339PY/V005).</i>	Duly Made 02/08/17
Application	Application for an environmental permit Part C3 – Variation to a Bespoke Installations Permit. Sections 1a, 2, 3a Technical Standards, Part B. Non-technical summary.	25/09/2020

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
1	The Operator shall propose the installation of a justified technique or combination of techniques to reduce NOx emissions from the furnace vents at source and/or to provide a means of achieving sufficient dispersion of these NOx releases to ensure that ground level concentrations of NOx are reduced to a level acceptable to the Environment Agency. The proposal shall be in writing and shall also include a timescale for its implementation.	Complete
2	The Operator shall propose improvements to upgrade the performance of both the shot blasting machine and its abatement equipment to ensure that releases of particulate matter, noise and vibration from the unit meet the BAT standards described in the guidance note S2.04. These improvements must be implemented to the satisfaction of the Environment Agency prior to the commencement of its ongoing operation.	Complete
3	The Operator shall install suitable means of measuring and recording cumulative daily effluent flow to the river Team in accordance with accuracy, tolerance, percentage data capture and reliability parameters stated within the Environment Agency's M2 guidance.	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
4	The Operator shall review the available techniques and propose a means of reducing liquid effluent suspended solids content to 20mg/litre or better. Following the implementation of this proposal the Operator shall initiate the reuse of clarified effluent at the 3 descaling stage to achieve a recycle rate comparable with BAT as defined by the Environment Agency's Hot Rolling guidance note IPPC S2.04. The above proposal shall be in writing and shall also include a timescale for its implementation.	Complete
5	The Operator shall review available techniques and propose a timetable for the installation of appropriate facilities to: (1) Manage the handling and storage of road sweepings prior to offsite disposal. (2) Ensure that there is no potential for ground water contamination arising from the degreasing of engineering equipment. The above proposal shall be in writing and shall also include a short timescale for its implementation.	Complete
6	The Operator shall undertake a noise and vibration assessment in accordance with BS4142 and then develop a noise and vibration management plan in accordance with the Environment Agency's H3 guidance. The plan shall take into account of but not be limited to factors such as creeping background. The operator shall provide a written copy of both the assessment and the plan arising from the above to the Environment Agency.	Complete
7	The Operator shall propose a means to reduce noise impact upon potentially sensitive receptors to ensure that there is no "reasonable cause for annoyance "as defined by BS4142 arising from site activities. The above proposal shall be in writing and shall also include a timescale for its implementation.	Complete
8	The Operator shall, implement the proposed improvements regarding the development of environmental management procedures as described within section 2.3 of the application. These procedures shall be factored into the EMS required by improvement condition 13.	Complete
9	The Operator shall develop and implement a planned preventative maintenance system covering all equipment the failure of which could have an environmental impact. The system should take account of the guidance within section 2.3 of the Environmental Agency's guidance document S2.04.	Complete
10	The Operator shall establish an inventory of raw materials and a system to review their ongoing suitability to ensure, wherever possible, that potentially environmentally harmful materials are substituted for less harmful ones. This system shall be factored into the EMS required by improvement condition 13.	Complete
11	The Operator shall implement the improvements proposed within section 2.5 of the application regarding the management of waste. These improvements shall be factored into the EMS required by improvement condition 13.	Complete
12	The Operator shall implement the proposed improvements to the site accident management plan as declared within section 2.8 of the application. These improvements shall be factored into the EMS required by improvement condition 13.	Complete
13	The Operator shall implement the Environmental Management System (EMS), which takes account of all the significant environmental aspects of the site as detailed in Environment Agency guidance document S2.04.	Complete
14	<u>Particulates Monitoring</u> A written report shall be submitted to the Agency for approval. The report shall contain the results of monitoring of concentration and flow rate of particulates from all potential significant sources (to be agreed in writing with the Agency prior to conducting the monitoring). The measurements shall be made under normal maximum plant operating conditions. The	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	monitoring shall be in accordance with BS EN 13284-1. Monitoring shall be carried out by an MCERTS accredited company using appropriately qualified MCERTS certified personnel.	
15	<u>Particulates Impact Assessment</u> A written report shall be submitted to the Agency for approval. The report shall contain an impact assessment of particulates from the installation based upon the monitoring carried out and data obtained from improvement programme reference 14 and the requirements of Environmental Agency horizontal guidance H1 - Environmental Assessment and Appraisal of BAT.	Complete
16	<u>Particulates BAT Options Appraisal</u> A written report shall be submitted to the Agency for approval. The report shall contain results of a BAT options appraisal of particulates emission controls and propose an improvement programme, where necessary, to ensure that the activities are consistent with the use of BAT as described in sector guidance note S2.04. The improvement programme shall contain dates for the implementation of individual measures.	Complete
17	<u>NOx Monitoring</u> A written report shall be submitted to the Agency for approval. The report shall contain the results of monitoring of NOx concentration and flow rate and any other determinands necessary to complete the requirements of improvement programme references 18 and 19. Monitoring shall be carried out from all potential significant sources of NOx, including fugitive sources and the list of sources is to be agreed in writing with the Agency prior to conducting the monitoring. The measurements shall be made under normal maximum plant operating conditions. The monitoring shall be in accordance with BS EN14792. Monitoring shall be carried out by an MCERTS accredited company using appropriately qualified MCERTS certified personnel.	Complete
18	<u>NOx Impact Assessment</u> A written report shall be submitted to the Agency for approval. The report shall contain the results of an assessment of NOx impact using a detailed air dispersion model. The model shall consider, but not be limited to: - 1. All significant point and fugitive sources of NOx on site as identified in improvement programme reference 17. 2. Appropriate sensitive receptors 3. Building and terrain data 4. Worst case annual meteorological data. 5. Will be based upon best available monitoring data as obtained in improvement programme reference 17. The model shall be used to consider the impact of NOx from the whole installation but should also breakdown the impact from the individual sources to determine their individual significance.	Complete
19	<u>NOx BAT Options Appraisal</u>	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	A written report shall be submitted to the Agency for approval. The report shall contain the results of a BAT options appraisal. The air dispersion model shall also be used as a tool to identify options for an improvement programme that will ensure that the activities are consistent with the use of BAT as described in sector guidance note S2.04. The options appraisal shall consider the following options: - 1. The use of low NOx burners where not used already 2. Increase of stack height / common stacks 3. Replacement of furnaces 4. NOx abatement (e.g. SCR / SNCR) The report shall include the improvement programme along with dates for completion of necessary modifications, prioritising the matters that have the most significant impact. The report should also use modelling data to show the impact following each stage of the improvement programme.	
20	<u>Review of Sampling Arrangements against M1 Guidance</u> A written report shall be submitted to the Agency for approval. The report shall contain the results of a review of all existing point source emission points as identified in table 2.2.1, excluding A2, against the requirements of Environment Agency Technical Guidance Note M1. Where any improvements are identified to meet the requirements of the M1 guidance, the report shall contain a programme including dates for the completion of necessary modifications. Note, in the case of the 'New-Hotwork Furnace', Agency will likely consider an ELV following completion of improvement works identified above.	Complete

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Sulphur content of gas and oil	Only gas oil as defined in the Sulphur Content of Liquid Fuels Regulations 2000 may be burned.

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in Schedule 7]	Gibbons furnace vent	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	400 mg/m ³	hourly average	6-monthly	BS EN 14792
A3 [Point A3 on site plan in Schedule 7]	HCT Reheat Batch Furnace Vent 1	-	-	-	-	Permanent sampling access not required
A4 [Point A4 on site plan in Schedule 7]	HCT Reheat Batch Furnace Vent 2	-	-	-	-	Permanent sampling access not required
A5 [Point A5 on site plan in Schedule 7]	Regenerative Reheat Furnace Stack	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	400 mg/m ³	hourly average	6-monthly	BS EN 14792
A6 [Point A6 on site plan in Schedule 7]	NCS Regenerative Reheat Batch Furnace	-	-	-	-	Permanent sampling access not required
A7 [Point A7 on site plan in Schedule 7]	NCS Heat Treatment Furnace	-	-	-	-	Permanent sampling access not required
A8 [Point A8 on site plan in Schedule 7]	SAS Heat Treatment Furnace	-	-	-	-	Permanent sampling access not required
A9 (point A9 in site plan in Schedule 7)	RISCO Reheat Batch Furnace	-	-	-	-	Permanent sampling access not required

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method (*See Note 1)
W1 (sampling point "SP" on site plan in schedule 7 is where effluent collects within flow proportional sampling device. Discharge Point "DP" on site plan in schedule 7 is emission point to river)	Effluent Treatment plant	Total suspended solids	100 mg/l	flow proportional sample	Monthly	*Method Number H035 (BS EN ISO 872)
		Total hydrocarbon oil	5 mg/l	flow proportional sample	Monthly	*Method Number 0082 GC-FID
		Dissolved Iron	10 mg/l	flow proportional sample	Monthly	*Method Number H205 (ICP-MS to BS EN ISO 17294)
		Zinc	2 mg/l	flow proportional sample	6 Monthly	*Method Number H205 (ICP-MS to BS EN ISO17294)
		pH	pH 5 to 9	flow proportional sample	Monthly	*Method Number H031 (BS EN ISO 6068 and 10523)
		Temperature	45 °C	-	Monthly	*Method Number L7
		Total Flow	300 m ³ /day	Electronic flow meter	Daily	MCERTS accredited meter

Note 1: The analytical method adopted is to conform to MCERTS performance standards specified for that determinant. The operator must be able to demonstrate that the method used meets these standards. Once this demonstration has been made,

the operator must agree in writing with the Environment Agency any change of method prior to making the change and be able to make a similar demonstration for any new method employed.

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A1, A5	Every 12 months	1 January
Emissions to water Parameters as required by condition 3.5.1	W1	Every 6 months	1 January, 1 July

Table S4.2: Annual production/treatment	
Parameter	Units
Rolled steel plate	Tonnes / year

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
NOx Emissions	Annually	Tonnes NOx / tonne rolled plate
Energy usage	Annually	MWh / tonne rolled plate
Potable water	Annually	M ³ / tonne rolled plate
Waste (prime scrap and non prime steel offcuts)	Annually	Tonne waste / tonne rolled plate

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Form air 1 (A1) or other form as agreed in writing by the Environment Agency	16/03/2005
Water	Form water 1 (W1) or other form as agreed in writing by the Environment Agency	16/03/2005
Water usage	Form water usage 1 (WU1) or other form as agreed in writing by the Environment Agency	16/03/2005
Waste return	Form waste return (R1) other form as agreed in writing by the Environment Agency	16/03/2005
Energy usage	Form energy 1 (E1) or other form as agreed in writing by the Environment Agency	16/03/2005
Other performance indicators	Form performance 1 (PI1) or other form as agreed in writing by the Environment Agency	16/03/2005

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 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.

background concentration” means such concentration of that substance as is present in:

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient

“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 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.

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

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

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

“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 amended from time to time.

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

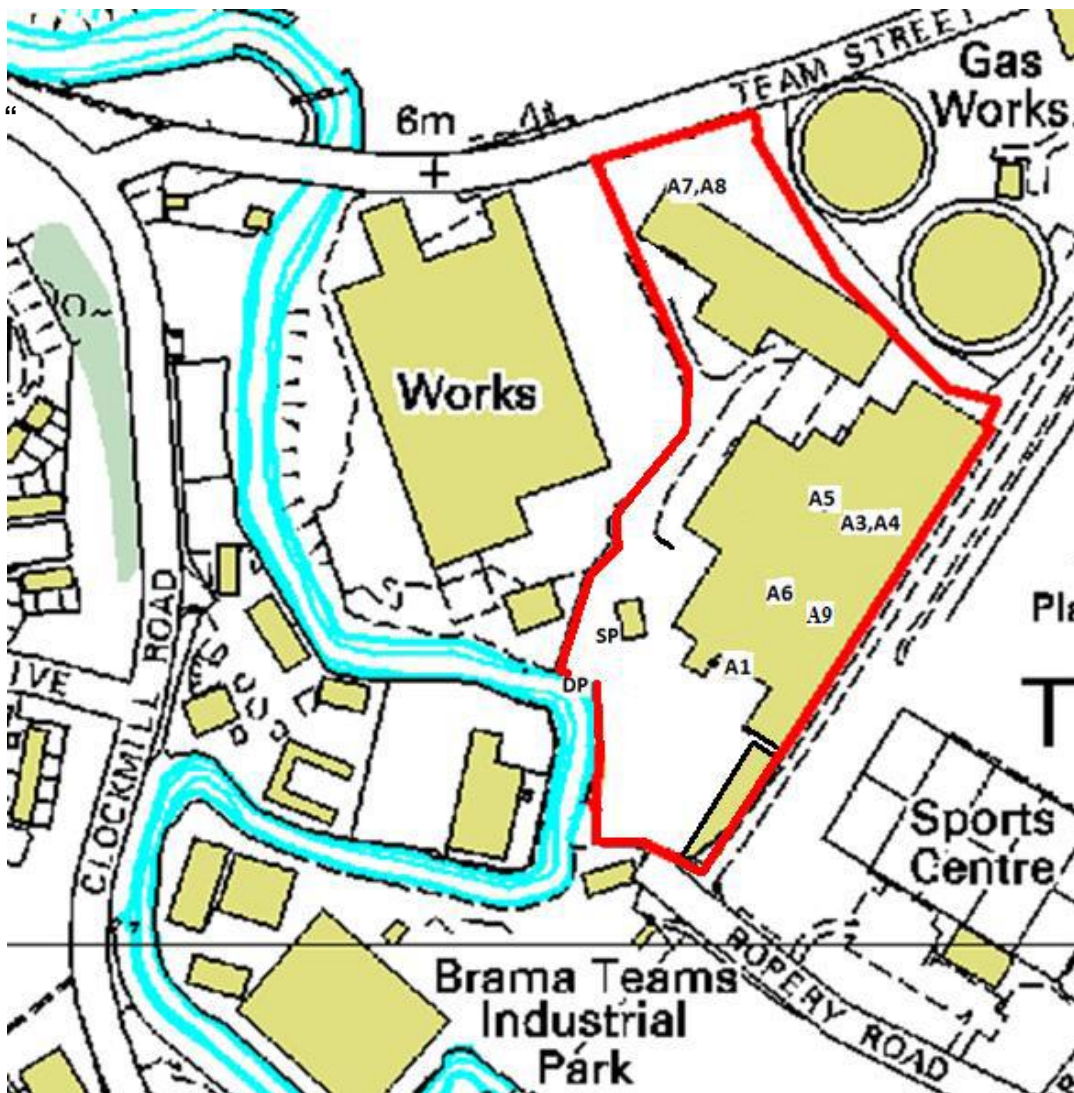
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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



Key:

A1	Gibbons furnace vent
A3	HCT Reheat Batch Furnace Vent 1
A4	HCT Reheat Batch Furnace Vent 2
A5	RGen Reheat Furnace Stack
A6	NCS Regenerative Reheat Batch Furnace
A7	NCS Heat Treatment Furnace
A8	SAS Heat Treatment Furnace
A9	RISCO Reheat Batch Furnace
SP	Sample point location
DP	Discharge point to River

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END OF PERMIT

Permit number
EPR/WP3339PY/V006