ENVIRONMENT AGENCY

Permit with introductory note

Pollution Prevention and Control Regulations 2000

Corus Strip Products
Corus UK Ltd
Llanwern Works
Newport
Gwent NP19 4QZ

Permit number

BS3905

Asiantaeth Yr Amgylchedd / Environment Agency
Rivers House, St Mellons Business Park, St Mellons, Cardiff CF3 0EY

Contents

Introductory note

This introductory note does not form a part of the Permit

The following Permit is issued under Regulation 10 of the Pollution Prevention and Control Regulations 2000 (S.I.2000 No.1973) ("the PPC Regulations") to operate an installation carrying out one or more of the activities listed in Part1 to Schedule 1 of those Regulations, to the extent authorised by the Permit.

The Permit includes conditions that have to be complied with. It should be noted that aspects of the operation of the installation which are not regulated by those conditions are subject to the condition implied by Regulation 12(10) of the PPC Regulations, that the Operator shall use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation.

Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

Brief description of the installation regulated by this permit

Llanwern Steel Works produces up to about 2,000,000 t of hot rolled coil per year in widths varying from 720mm to 1550mm, gauge varying from 1.2mm to 12.5mm and with a variety of finishes for the manufacturing sector. The installation comprises hot rolling, cold rolling, pickling and galvanising activities.

The works receives cast steel slabs by rail and road, rail being the main method of transport. The slabs are held in slab storage yards. Each slab has an index number and is processed to meet specific customer requirements.

Hot Rolling

When scheduled for hot rolling the slabs are transported to the entry end of the reheat furnaces. The slabs are pushed sequentially into the furnaces and heated to about 1200-1300 °C. There are five reheat furnaces each with a 140MW thermal rating. Of these four are normally in operation and one being maintained. The furnaces are natural gas fired with no back-up fuel. After exiting the furnaces they pass through scale breakers and a roughing section reducing thickness from 20-25cm to 28-35 mm. The strip is then passed through the finishing mill reducing the strip thickness to a minimum of 1.2 mm and this is coiled on down-coilers to give coils with a maximum weight of 34 t. The Hot Mill coils are sold without further treatment as dry coils, or, can undergo further processing at Llanwern.

The main releases to air are from the five individual release points for the reheat furnaces. The main releases generated by the hot rolling include contaminated water, oils and greases and iron oxide fume. Oil contaminated water is recycled through a clarification plant. Oil is reclaimed from the clarification plant and a dedicated oil/water separation system incorporating settling tanks and a steaming process to reduce the water content. Sludge from the settling tanks is disposed of at a licensed Waste Management Site. Clean scale is collected for reuse in other works sinter plant. Oily mill scale is currently stored in a lagoon pending transportation off site for disposal/treatment.

Pickling and oiling

Hot rolled coils are transported for processing on one of two pickle lines in order to remove the oxide scale formed during the rolling process. The coils are unwound to produce a flat strip which is welded to the following strip to produce a continuous length. A scale breaker unit produces tension in the strip to produce cracks in the scale surface and aid removal. The strip then enters a series of enclosed tanks containing hydrochloric acid at different concentrations. After exiting the final tank the strip passes through a rinse section then drying section. Finishing operations including trimming, oiling, cutting and recoiling are then undertaken prior to despatch or further processing.

The main release to the environment from the pickling process is acid fume which is abated by means of a wet acid gas scrubber. Process waters are treated in a neutralisation plant before pumping to the Hot Strip Mill clarification plant prior to discharge.

Cold rolling

Continuous cold reduction of hot rolled pickled steel is undertaken on a five stand tandem mill. A continuous strip is formed by welding. Rolling oils used in the process are cleaned and recycled by use of filters and magnetic separators.

Galvanising

The galvanising plant (ZODIAC) takes cold rolled reduced coil and pickle coil. The strip is annealed and coated with zinc to improve surface quality, shape and metallurgical properties. Individual coils are unwound and gauge checked prior to welding to form a continuous strip. The strip then passes to an alkali based cleaning process followed by rinsing and drying. The furnace section(21MWth) heats the strip to 500° C in an oxygen free environment. The strip is then cooled to achieve a temperature of 460°C prior to entry to the coating section consisting of a zinc bath. Final customer specifications are met by further processing in the Galvanneal Furnace, texture milling and chromate sections. Final product coils are held in despatch and finally leave the site by rail and road.

There are several release points to air from the process. These include combustion products from the furnaces, oil mist vapour and small particulate releases from the welder and chemical treatment plants. Waste water is transferred direct to the works' mild effluent discharge.

General

The works has three dedicated package boilers of 19.5 MWth supplying steam for process and space heating purposes. These are fired with natural gas, with gas oil back-up fuel.

Process water is treated to remove solids and oil, combined with drainage from a lagoon and then discharged into the Severn Estuary at the Mild Effluent Outfall.

Other PPC Permits relating to this installation		
Permit holder	Permit Number	Date of Issue
None		

Superseded Licenses/Consents/Authorisations relating to this installation		
Holder	Reference Number	Date of Issue
Corus UK Ltd	AR0349	31/7/1995
Corus UK Ltd	APA/013/921 (1)	20/4/1995

Note 1: Air Pollution Control permit for the ZODIAC plant.

Talking to us

If you contact the Agency about this Permit please quote the Permit Number.

The Operator should use the Emergency Hotline telephone number (0800 80 70 60) or any other number notified to it to give a notification under condition 5.1.1.

Confidentiality

The Permit requires the Operator to provide information to the Agency. The Agency will place the information onto the public registers in accordance with the requirements of the PPC Regulations. If the Operator considers that any information provided is commercially confidential, it may apply to the Agency to have such information withheld from the register as provided in the PPC Regulations. To enable the Agency to determine whether the information is commercially confidential, the Operator should clearly identify the information in question and should specify clear and precise reasons.

Variations to the permit

This Permit may be varied in the future. The Status Log within the Introductory Note to any such variation will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

Surrender of the permit

Before this Permit can be wholly or partially surrendered, an application to surrender the Permit has to be made. For the applicant to be successful, they would have to be able to demonstrate to the Agency, in accordance with Regulation 19 of the PPC Regulations, that there is no pollution risk and that no further steps are required to return the site to a satisfactory state.

Transfer of the permit or part of the permit

Before the Permit can be wholly or partially transferred to another person, a joint application to transfer the Permit has to be made by both the existing and proposed holders, in accordance with Regulation 18 of the PPC Regulations. A transfer will be allowed unless the Agency considers that the proposed holder will not be the person who will have control over the operation of the installation or will not ensure compliance with the conditions of the transferred Permit. If the Permit authorises the carrying out of a specified waste management activity, then there is a further requirement that the transferee is considered to be a "fit and proper person" to carry out that activity.

Status Log

Detail	Date	Comment
Application BS3905	Received 31/07/02 & 10/01/03	
Response to request for information	Request dated 9/08/02 Request dated 18/10/02	Response dated 5/09/02 Response dated 10/01/03 & 17/06/03
Request to extend determination	Requested 1/12/03	Response dated 08/12/03
Request to extend determination	Requested 27/01/04	Response dated 29/01/04
Request to extend determination	Requested 2/03/04	Response dated 4/03/04
Permit BS3905	Determined 18/03/04	

End of introductory Note.

ENVIRONMENT AGENCY

Permit

Permit number
BS3905

The Environment Agency (the Agency) in exercise of its powers under Regulation 10 of the Pollution Prevention and Control Regulations 2000 (S.I. 2000 No. 1973), hereby authorises

Corus UK Ltd ("the Operator"),

whose Registered Office is

30 Millbank, London SW1P 4WY

Company registration number 2280000

to operate an Installation at

Corus Strip Products, Llanwern Works, Newport, Gwent NP19 4QZ

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

Signed

J Tomala

Mr J Tomala

Authorised to sign on behalf of the Environment Agency

Date

18th March 2004

Conditions

1 The permitted installation

1.1.1 The Operator is authorised to carry out the activities and/or the associated activities specified in Table 1.1.1.

Table 1.1.1

Activity under Schedule 1 of the Regulations/ Associated Activity	Description of specified activity	Limits of specified activity
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. [Schedule 1 Activity – Chapter 2, Section 2.1, Part A(1)(c)]	Hot Strip Mill	(1)
Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more. [Schedule 1 Activity – Chapter 1, Section 1.1, Part A(1)(a)]	140 MWth Slab Reheat Furnace No 1 140 MWth Slab Reheat Furnace No 2 140 MWth Slab Reheat Furnace No 3 140MWth Slab Reheat Furnace No 4 140 MWth Slab Reheat Furnace No 5	(1)
Burning any fuel in an appliance with a rated thermal input of 50 megawatts or more. [Schedule 1 Activity – Chapter 1, Section 1.1, Part A(1)(a)]	19.5 MWth Natural gas-fired boiler No 1 19.5 MWth Natural gas-fired boiler No 2 19.5 MWth Natural gas-fired boiler No 3	(1)
Surface treating metals and plastic materials using an electrolytic or chemical process where the aggregated volume of the treatment vats is more than 30 m^3 and where the activity is carried out at the same installation as one or more activities falling within – Part A(2) of Section 2.1 [Schedule 1 Activity – Chapter 2, Section 2.3, Part A(2)]	Pickle lines 1 & 2	(1)
Applying protective fused metal coatings with an input of more than 2 tonnes of crude steel per hour. [Schedule 1 Activity – Chapter 2, Section 2.1, Part A(2)(c)	ZODIAC Hot Dip Galvanising Line, including precleaner, radiant furnace and direct fired furnace (combined rating 20.1MW), chromate treatments, and Meibach Welder	(1)
Directly associated activity	Slab unloading, storage and transfer to the furnaces.	(1)

Directly associated activity	Packing and despatch areas	(1)
Directly associated activity	Cold Reduction Mill	(1)
Directly associated activity	Nitrogen supply	(1)
Directly associated activity	Water treatment plant	(1)

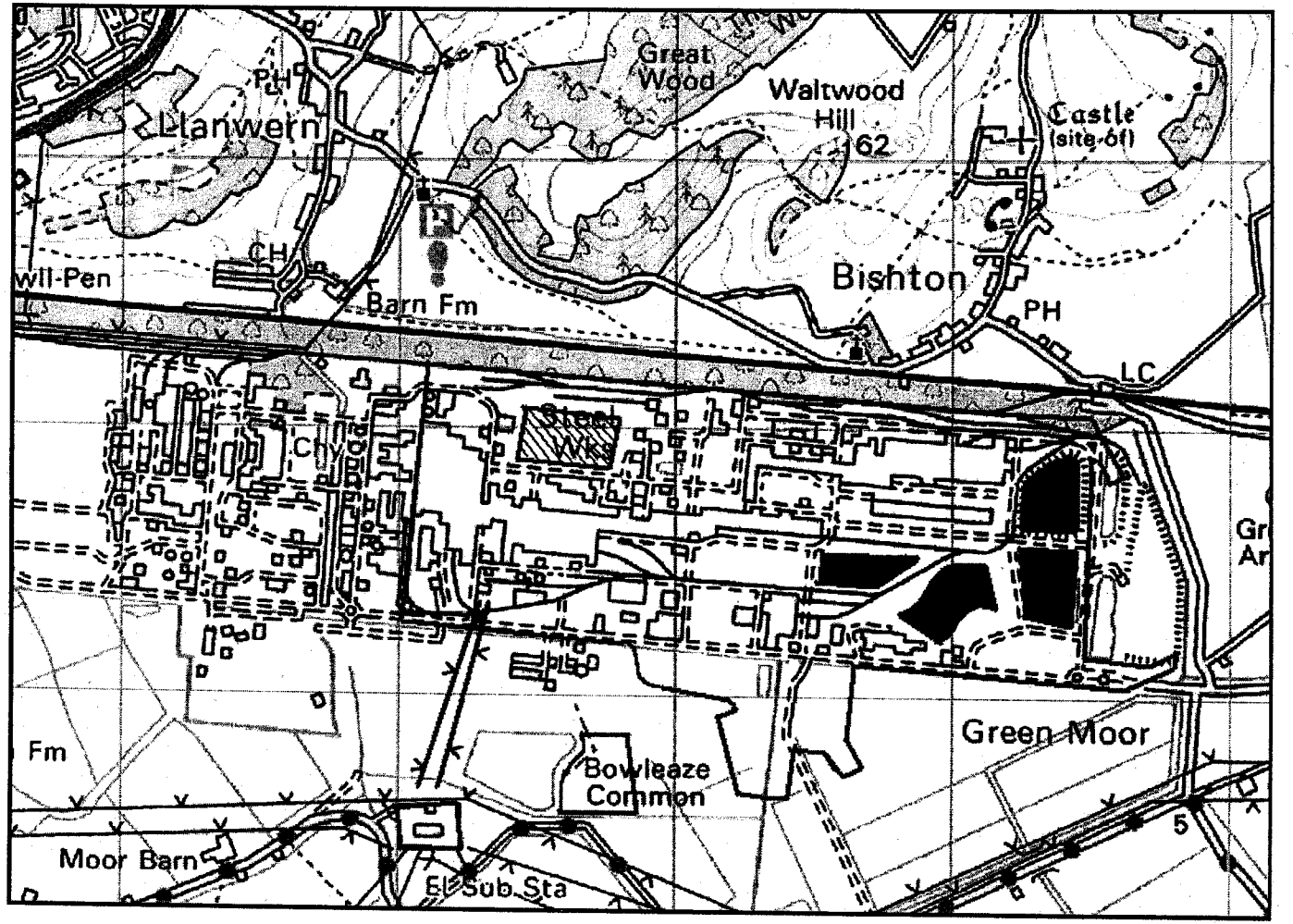
Note
(1) The limits of specified and associated activities collectively comprise all activities carried out in the installation between the receipt of raw materials to the supply of finished products

1.1.2 The Permitted Installation shall, subject to the conditions in this Permit, be managed and controlled as described in the application dated 31st July 2002, additional information supplied 10th January 2003 and in the response to the Schedule 4 notices dated 9th August and 18th October 2002, or as otherwise agreed in writing by the Agency.

1.1.3 The activities authorised under condition 1.1.1 shall not extend beyond the Site, being the Llanwern Works areas shown within bold lines on the plan below

One Centimetre = 0.263 Km

Km 0.5 1 1.5 2 2.5



Lagoons not part of the installation

Hashed area not part of the installation

2 Operational Matters

2.1 Management techniques and control

2.1.1 The Permitted Installation shall, subject to the conditions of this Permit, be managed and controlled as described in the documentation specified in Table 2.1.1, or as otherwise agreed in writing by the Agency.

Table .2.1.1 : Management and control

Description	Parts	Date Received
Application	The response to question B2.1 given in Section B2.1 of the application	31/7/02
Response to Schedule 4 Part1 Notice	Response to question B2.1	13/01/03

2.1.2 All plant, equipment and technical means used in operating the Permitted Installation shall be maintained in good operating condition.

2.1.3 The Permitted Installation shall be supervised by staff who are suitably trained and fully conversant with the requirements of this Permit.

2.1.4 A copy of this Permit and those parts of the application referred to in this Permit shall be available, at all times, for reference by all staff carrying out work subject to the requirements of the Permit.

2.1.5 All staff shall be fully conversant with those aspects of the Permit conditions, which are relevant to their duties and shall be provided with appropriate training and written operating instructions to enable them to carry out their duties.

2.2 Raw materials (including water)

2.2.1 The Operator shall, subject to the conditions of this Permit, use raw materials (including water) as described in the documentation specified in Table 2.2.1, or as otherwise agreed in writing by the Agency.

Table 2.2.1 : Raw materials (including water)

Description	Parts	Date Received
Application	The response to question B2.2 given in section B2.2 of the application	31/7/02

2.2.2 The Operator shall maintain an inventory of raw materials used on-site. This inventory shall record:-

- Maximum quantity stored at any time.
- The quantity used over time.
- Fate of the material used if it can be directly or indirectly released into the environment.

- Any relevant environmental data on the raw material (degradability, bioaccumulation, toxicity, etc).

2.2.3 Raw materials, received into the installation, which are waste shall not be used in the Installation without the written agreement of the Environment Agency.

2.3 Operating Techniques

2.3.1 The Permitted Installation shall, subject to the conditions of this Permit, be operated using the techniques and in the manner described in the documentation specified in Table 2.3.1, or as otherwise agreed in writing by the Agency.

Table 2.3.1: Operating techniques

Description	Parts	Date Received
Application	The response to question B2.3 given in Section B2.3 of the application	31/7/02
Response to Schedule 4 Part 1 Notice	Response to question B2.3	13/01/03

2.4 Groundwater protection

2.4.1 The Permitted Installation shall, subject to the conditions of this Permit, be controlled as described in the documentation specified in Table 2.4.1, or as otherwise agreed in writing by the Agency.

Table 2.4.1: Groundwater protection

Description	Parts	Date Received
Application	The response to questions B1.3 and B2.4 given in sections B1.3 and B2.4 of the application	31/7/02
Response to Schedule 4 Part 1 Notice	Response to questions B2.3.8	13/01/03

2.4.2 All oil and chemicals shall be stored in designated containment areas which shall be bunded or kerbed to contain any spillage. The capacity of the bunds shall be calculated to give containment for 110% of the total volume for single tanks and hydraulically linked tanks. Where two or more tanks are installed within the same bund, 110% of the largest tank or 25% of the total capacity of all tanks, whichever is the greater shall be used. The bunds shall be inspected on a regular basis to ensure they are substantially clear of material loss or rainwater and a record of the inspection maintained in the plant operational records.

2.5 Waste handling and storage

2.5.1 The Operator shall, subject to the conditions of this Permit, handle and store waste as described in the documentation specified in Table 2.5.1, or as otherwise agreed in writing by the Agency.

Table 2.5.1: Waste handling and storage		
Description	**Parts**	**Date Received**
Application	The response to question B2.5. given in Section B2.5 of the application	31/7/02

2.5.2 Waste materials specified in Table 2.5.2 shall only be stored on the site in the location and manner specified in that Table.

TABLE 2.5.2: Waste stored on site			
Description of Waste	**Location of Storage on Site**	**Manner of Storage**	**Storage Conditions**
Ferrous chloride solution	Designated location	Bunded tanks	No specific conditions
Oily mill scale	Designated location	Lagoon 27 interim temporary storage, to be replaced by agreed separate provisions following completion of Improvement Item 9.4	No specific conditions
Paper	Inside building	Wheeled bins	No specific conditions
Hot mill waste oil	Designated location	Segregated area	No specific conditions
Cold mill waste oil	Designated location	Bunded tanks	No specific conditions
Scrap steel	Designated location	Skips	No specific conditions
Crushed slag	Designated location	Stockpile. Periodic redistribution on site as road surface material	No specific conditions
Water clarification slurry	Designated location	Segregated area	No specific conditions
Refractory waste	Designated location	Segregated area	No specific conditions
General waste	Designated locations	Skips	No specific conditions

2.5.3 Waste storage areas shall be segregated and designated with clearly labelled signage as to the type of waste which is permitted to be stored.

2.6 Waste recovery and disposal

2.6.1 The Operator shall, subject to the conditions of this Permit, recover and dispose of waste as described in the documentation specified in Table 2.6.1, or as otherwise agreed in writing by the Agency.

Table 2.6.1: Waste recovery and disposal		
Description	**Parts**	**Date Received**
Application	The response to question B2.6 given in section B2.6 of the application	31/7/02

2.7 Energy Efficiency

2.7.1 The Operator shall, subject to the conditions of this Permit, use energy as described in the documentation specified in Table 2.7.1, or as otherwise agreed in writing by the Agency.

Table 2.7 1: Energy efficiency		
Description	**Parts**	**Date Received**
Application	The response to question B2.7 given in section B2.7 of the application	31/7/02

2.7.2 The Operator shall notify the Environment Agency without delay in the case of any failure to meet the obligations required by a Climate Change Agreement or Trading Agreement or if the permitted activities leave such an agreement.

2.7.3 The Operator shall have an energy management plan, which shall be updated annually. The plan shall include proposals for energy efficiency if appropriate (including those proposed under any negotiated agreement or trading arrangement) together with target setting and monitoring details.

2.8 Accident prevention and control

2.8.1 The Operator shall, subject to the conditions of this Permit, prevent and limit the consequences of accidents as described in the documentation specified in Table 2.8.1, or as otherwise agreed in writing by the Agency.

Table 2.8.1 : Accident prevention and control		
Description	**Parts**	**Date Received**
Application	The response to question B2.8 given in section B2.8 of the application	31/7/02

2.8.2 The Operator shall identify the hazards to the public and the environment posed by the installation. He shall assess the risk of a particular hazard arising and have contingency plans to mitigate any unavoidable consequences of an incident. The hazard and risk assessment shall be recorded and reviewed annually.

2.9 Noise and vibration

2.9.1 The Operator shall, subject to the conditions of this Permit, control noise and vibration as described in the documentation specified in Table 2.9.1, or as otherwise agreed in writing by the Agency.

Table 2.9.1 : Noise and vibration		
Description	**Parts**	**Date Received**
Application	The response to question B2.9 given in section B2.9 of the application	31/7/02

2.9.2 The Operator shall maintain a noise and vibration management plan with the objective of reducing to a minimum noise and vibration so as not to cause harm or annoyance within the local community.

The plan shall include annual noise measurements, which shall be assessed in accordance with BS4142. Noise sources which individually, or in combination, exceed the noise ratings given in the British Standard shall be documented in the Noise Management Plan together with the measures necessary to reduce noise to a minimum.

2.10 Monitoring

2.10.1 The Operator shall, subject to the conditions of this Permit, carry out, evaluate and assess monitoring as described in the documentation specified in Table 2.10.1, or as otherwise agreed in writing by the Agency.

Table 2.10.1 : Monitoring		
Description	**Parts**	**Date Received**
Application	The response to question B2.10 given in section B2.10 of the application	31/7/02

2.10.2 Where requested in writing by the Agency, the Operator shall provide at least 14 days advance notice of undertaking monitoring/spot sampling.

2.10.3 There shall be provided:

a safe and permanent means of access to enable sampling/monitoring to be carried out in relation to the emission points specified in Schedule 2, unless otherwise specified in that Schedule and

b safe means of access to other sampling/monitoring points when required by the Agency.

2.10.4 Methods for non-continuous monitoring and to calibrate automated, continuous measurement systems, shall be carried out as specified by the appropriate CEN standards. If CEN standards are not available, ISO standards, national or international standards which will ensure the provision of data of an equivalent scientific quality, as approved in writing by the Environment Agency, shall apply. The reference measurements used shall be approved in writing by the Agency.

2.10.5 The Operator shall perform point source monitoring in accordance with the methods stated in Table 2.10.2 and where appropriate CEN standards are not available.

Table 2.10.2 : Monitoring Methods for Releases into Air	
Parameter	**Method**
Particulate	BS EN 13284-1: 2002
Nitrogen Oxides	ISO 10849
Carbon Monoxide	ISO 12039
Hydrogen Chloride	BS EN 1911:1998

Monitoring Methods for Releases into Water	
Parameter	**Method**
Suspended solids	ISO 11929: 1997; EN 872 – Determination of suspended solids. Dried at 105°C
Oil/Grease	Material soluble in 1,1,2 trichloro-trifluoroethane. Determined by the aliphatic CH_2 absorption in the infra-red at 2961 cm^{-1}, 2926 cm^{-1} and 2853 cm^{-1}

Notes:

1. When reporting monitoring results the Operator shall state the limits of accuracy of the method.
2. If a monitoring result is below the limit of detection, then the limit of detection (LOD) should be reported.
3. Monitoring instruments shall be calibrated in accordance with manufacturers instructions and an Operational Record made. The particulate monitoring systems installed on Fume Extraction Systems A and B shall be calibrated annually using a method approved in writing by the Environment Agency.
4. Alternative monitoring methods to those stated above may be agreed in writing by the Environment Agency.

2.11 Decommissioning

2.11.1 The Operator shall, subject to the conditions of this Permit, make provision for decommissioning the installation as described in the documentation specified in Table 2.11.1, or as otherwise agreed in writing by the Agency.

Table 2.11.1 : Decommissioning		
Description	**Parts**	**Date Received**
Application	The response to question B2.11 given in section B2.11 of the application	31/7/02

2.12 Multi-operator installations

2.12.1 The Operator shall, subject to the conditions of this Permit, use the techniques and measures described in the documentation specified in Table 2.12.1, or as otherwise agreed in writing by the Agency.

Table 2.12.1: Multi-operator Installations		
Description	**Parts**	**Date Received**
Application	The response to questions 2.12 application	31/7/02

3 Records

3.1.1 A record (a "Specified Record") shall be made of:-

a any malfunction, breakdown or failure of plant, equipment or techniques (including down time and any short term and long term remedial measures) that may have, has had or might have had an effect on the environmental performance of the Permitted Installation. These records shall be kept in a log maintained for that purpose;

b all monitoring and sampling taken or carried out and any assessment or evaluation made on the basis of such data;

c records of specified inspections or actions contained in this permit.

3.1.2 There shall be made available for inspection by the Agency at any reasonable time:

a Specified Records;

b any other records made by the Operator in relation to the operation of the Permitted Installation ("Other Records")

3.1.3 A copy of any Specified or Other Records shall be supplied to the Agency on demand and without charge

3.1.4 Specified Records and Other Records shall:-

a be legible;

b be made as soon as reasonably practicable;

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

3.1.5 Specified Records and Other Records shall be retained for a minimum period of 4 years from the date when the records were made.

3.1.6 For all waste received at or produced from the Permitted Installation, the Operator shall record (and shall retain such records for a minimum of 4 years)

a its composition, or as appropriate, description;

b the best estimate of the quantity produced;

c its disposal routes; and

d the best estimate of the quantity sent for recovery.

3.1.7 A record shall be made at the Permitted Installation of any complaints concerning the Installation's effect or alleged effect on the environment. The record shall give the date of complaint, time of complaint, a summary of any investigation and the results of such investigation. Such records shall be made in a log kept for this purpose.

4 Reporting

4.1.1 All reports and notifications required by this Permit, or by Regulation 16 of the PPC Regulations, shall be sent to the Environment Agency at the address notified in writing to the Operator by the Agency .

4.1.2 The Operator shall report the parameters listed in Table S2 to Schedule 2 as follows:

a in respects of the emission points specified;

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

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

d sending the report to the Agency within 28 days of the end of the reporting period.

4.1.3 The Operator shall, within 36 months of the issue of this Permit, submit a report on potential environmental improvements to the Permitted Installation. For each of the subject areas identified in Section 2 of the appropriate technical guidance, the report shall assess the costs and benefits of alternative techniques that may provide environmental improvement. This shall include, but not be limited to, those techniques listed in guidance. The methodologies used should be based on those given in Agency guidance note H1 and should justify, against the BAT criteria, where potential improvements are not planned to be implemented. As part of their management system the Operator shall submit an updated report every 36 months.

4.1.4 Where the Operator has a formal environmental management system applying to the Permitted Installation which encompasses annual improvement targets the Operator shall, not later than 31 January in each year, provide a summary report of the previous full calendar year's progress against such targets.

4.1.5 Fugitive emissions shall be reviewed on an annual basis and a summary report on this review shall be sent to the Agency detailing such releases and the measures taken to reduce them.

4.1.6 The Operator shall, as part of his EMS, develop performance indicators as part of a system for setting targets and monitoring performance.

4.1.7 The Operator shall submit an annual report to include key performance indicators for the principal departments within the installation, which as a minimum shall include the following measures of performance. Alternative key performance indicators may be agreed in writing by the Environment Agency.

Key Performance Indicators

Hot Mill	Total water supplied per tonne of rolled steel	Oil used per tonne of steel	Substances released into air per tonne of steel rolled: CO_2 and NOx (as NO_2)	Waste disposal per tonne of steel rolled (excluding material sent for recovery)
Cold Mill			-	
Zodiac			Substances released into air per tonne of steel rolled: CO_2 and NOx (as NO_2)	

5 Notifications

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

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

b the detection of any fugitive emission which has caused or may cause pollution unless the quantity emitted is so trivial that it would be incapable of causing pollution;

c the detection of any malfunction, breakdown or failure of plant or techniques which has caused or may have the potential to cause pollution; and

d any accident which has caused or may have the potential to cause pollution.

5.1.2 The Operator shall submit written confirmation to the Agency of any notification under condition 5.1.1 in accordance with Schedule 1 to this Permit, by sending the information listed in Part A of Schedule 1 to this Permit within 24 hours of such notification. The Operator shall send the more detailed information listed in Part B of that Schedule as soon as practicable thereafter;

5.1.3 The Operator shall give written notification as soon as practicable, of any of the following

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

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

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

5.1.4 The Operator shall notify the following matters to the Agency, in writing, within 14 days of their occurrence:

a any change in the Operator's trading name, registered name or registered office address;

b a change to any particulars of the Operator's ultimate holding company (including details of an ultimate holding company where the Operator has become a subsidiary);

c any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up.

6 Emissions

6.1 Emissions into air

6.1.1 Emissions to air from the emission point(s) specified in Table 6.1.1 shall only arise from the source(s) specified in that Table.

Table 6.1.1: Emission points into air

Emission point reference/description	Source	Location of emission point
A1	Slab reheat furnace No 1	A1 on site plan
A2	Slab reheat furnace No 2	A2 on site plan
A3	Slab reheat furnace No 3	A3 on site plan
A4	Slab reheat furnace No 4	A4 on site plan
A5	Slab reheat furnace No 5	A5 on site plan
A6	Pickle line stack No 1	A6 on site plan
A7	Pickle line stack No 2	A7 on site plan
A8	Pickle line roof extraction	A8 on site plan
A9	Cold Mill oil mist vent	A9 on site plan
A10	Zodiac precleaner stack	A10 on site plan
A11	Zodiac heat treatment stack	A11 on site plan
A12	Zodiac chromate stack	A12 on site plan
A13	Meibach welder	A13 on site plan
A14	Boiler No 1	A14 on site plan
A15	Boiler No 2	A15 on site plan
A16	Boiler No 3	A16 on site plan

6.1.2 The limits for emissions into air for the parameter(s) and emission point(s) set out in Table 6.1.2 shall not be exceeded.

6.1.3 The Operator shall carry out monitoring of the parameters listed in Table 6.1.2, from the emission points and at least at the frequencies specified in that Table.

Table 6.1.2: Emission limits into air

Emission point	Source	Parameters Monitoring frequency[1]				
		NOx (as NO_2) mg/m^3	CO mg/m3	Hydrogen chloride mg/m^3	PM	Oil mist mg/m^3
A1	Slab reheat furnace No 1	400	-	-	-	-
A2	Slab reheat furnace No 2	400	-	-	-	-
A3	Slab reheat furnace No 3	400	-	-	-	-
A4	Slab reheat furnace No 4	400	-	-	-	-
A5	Slab reheat furnace No 5	400	-	-	-	-
A6	Pickle line stack No 1	-	-	5	-	-
A7	Pickle line stack No 2	-	-	5	-	-
A8	Pickle line roof extraction (2)	-	-	5 (3)	-	-
A9	Cold Mill oil mist vent (2).	-	-	-	-	15 (4)
A10	Zodiac precleaner stack (2)	-	-	-	5	-
A11	Zodiac heat treatment stack	140	-	-	-	-
A12	Zodiac chromate stack (2)	-	-	-	5	-
A13	Meibach welder (2)	-	-	-	5	-
A14	Package boiler No 1	140 on natural gas		-	-	-
A15	Package boiler No 2	200 on gas oil	-	-	-	-
A16	Package boiler No 3			-	-	-

Notes :

1. All release points to be monitored at least quarterly with at least 4 weeks between tests unless indicated otherwise.
2. Annual monitoring.
3. When Improvement Item 9.9 completed.
4. When Improvement Item 9.9 completed.

6.1.4 The maximum sulphur content of gas oil used for combustion purposes shall be 0.2% by weight before 1st January 2008 and 0.1% by weight from that date.

6.2 Emissions to land

6.2.1 There shall be no emission to land from the Permitted Installation.

6.2.2 The Operator shall notify the Agency, as soon as practicable, of any information concerning the state of the Site which affects or updates that provided to the Agency as part of the Site Report submitted with the application for this Permit.

6.3 Emissions to water [other than emissions to sewer]

6.3.1 Emissions to water from the emission point(s) specified in Table 6.3.1 shall only arise from the source(s) specified in that Table.

Table 6.3.1: Emission points into water

Emission Point Reference.	Source	Receiving Water
W1	Mild effluent outfall	Severn Estuary

6.3.2 Limits for the emissions to water for the parameter(s) and emission point(s) set out in Table 6.3.3 shall not be exceeded.

6.3.3 The Operator shall carry out monitoring of the parameters listed in Table 6.3.3, from the emission points and at least at the frequencies specified in that Table.

Table 6.3.3: Emission limits into water		
Parameter	Emission Point W1	Monitoring Frequency
Flow rate	28 000 m³/day (dry weather)	Continuous
pH min	6	
pH max	12	
Surface oil	None specified	
Total hydrocarbon oil (3)(4)	5 mg/l	Composite weekly
Suspended solids (1) (2) (3) (5)	50 mg/l	
Dissolved iron (1) (3)	10 mg/l	
Total chromium (1) (3)	0.2 mg/l	
Dissolved nickel (1) (3)	0.2 mg/l	
Zinc (1) (3)	2 mg/l	
Copper(1) (3)	0.1mg/l	
Lead(1) (3)	0.8 mg/l	
Arsenic(1) (3)	0.01mg/l	
Cadium(1) (3)	0.05mg/l	
Mercury(1) (3)	0.05mg/l	
Ammoniacal nitrogen	None specified	Monthly
Monohydric phenol		
Cyanide		
Benzene		

Notes:

1. Any representative spot sample.
2. The solids shall be separated and dried at 105°C.
3. Limit shall be complied with if 95% of all weekly representative spot samples during a rolling half year period do not exceed the limit value given in Table 6.3.3. and the peak spot sample value does not exceed 1.5 times the limit value.
4. 15 mg/l until completion of Improvement Item 9.13
5. 100 mg/l until completion of Improvement Item 9.13

6.3.4 There shall be no emission into water from the Permitted Installation of any substance prescribed for water for which no limit is specified in Table 6.3.3 except in a concentration which is no greater than the background concentration.

6.4 Emissions to sewer

6.4.1 There shall be no emission to sewer from the Permitted Installation.

6.5 Emissions of heat

6.5.1 No specific conditions in relation to heat are considered necessary.

6.6 Emissions of noise and vibration

6.6.1 No specific conditions in relation to noise and vibration are considered necessary.

7 Transfer to effluent treatment plant

7.1.1 No transfers to effluent treatment plant are controlled under this part of this Permit. Emissions to water are controlled under 6.3.

8 Off site conditions

8.1.1 There are no off site conditions.

9 Improvement programme

The Operator shall complete the requirements specified in Table 9.1.1 by the date specified in that Table, and shall send written notification of the date of completion of each requirement to the Agency, at the Reporting Address, within 14 days of the completion of each such requirement.

Table 9.1.1: Improvement programme requirements

Reference	Requirement	Date (1)
9.1	Following the bund audit conducted over the period November 2002 to January 2003 the Operator shall compile plans to ensure all bunds satisfy the appropriate regulations and standards. The timescale for undertaking improvements and repair/maintenance shall be agreed with the Agency.	1st August 2004
9.2	The Operator shall provide a report to the Agency that details the best practicable environmental options for disposal of oily mill scale (to include both current and historic arisings within Lagoon 27). A report shall be submitted to the Agency and include, a review of current practice and assessment against BAT, potential alternative disposal and reuse/recycle options and relevant implementation plans.	1st September 2004, to be updated annually
9.3	The Operator shall provide suitable scaled plans for each of the 11 zones identified in the Site Condition Report that identify the locations of raw materials storage and processing and waste handling activities that may give rise to accidental emissions/release of contaminants to land.	1st September 2004
9.4	The Operator shall cease addition of oily mill scale to Lagoon 27. Alternative handling facilities for oily mill scale shall be established pending disposal or treatment/reuse. Such facilities must be of an appropriate standard as agreed with the Agency.	1st October 2004
9.5	The Operator shall undertake an annual noise survey to determine background noise levels during plant shutdown and ambient noise levels during normal operation. Measurements shall be undertaken to the north of the site boundary at specific locations agreed with the Agency. A report that details any necessary requirements and actions to meet the Sector Guidance Note standards shall be submitted to the Agency.	1st October 2004 and annually thereafter
9.6	The Operator shall identify the requirements of the Large Scale Combustion Plant Directive and complete all necessary actions to ensure full compliance. A report that details the necessary requirements and actions shall be submitted to the Agency.	1st November 2004
9.7	The Operator shall conduct a waste minimisation audit that analyses the use of raw materials, assess the opportunities for reductions in generated wastes and provides an action plan for achieving the identified improvements. The review shall assess the current disposal techniques to ensure that the disposal of wastes meets the requirements of the Landfill Directive. A report shall be provided to the Agency. The timescale for implementation of proposed action plans shall be agreed with the Agency.	1st January 2005 and annual updates on the anniversary

9.8	Where there are unacceptable exceedances of the Sector Guidance Note noise standards as identified under 9.5 the Operator shall devise a plan to implement the agreed measures to ensure compliance and within an agreed timescale.	1st April 2005
9.9	The Operator shall quantify the releases from emission points A8 and A9 and report to the Agency.	1st May 2005
9.10	The Operator shall conduct a water efficiency audit. This will compare water usage within the site against relevant usage rates in the Iron and Steel PPC guidance and relevant BREF note. A report shall be provided to the Agency. Where usage rates are high, the Operator shall review the techniques available for recycling and minimising water usage within each process area. The timescale for implementation of proposed action plans shall be agreed with the Agency.	1st May 2005
9.11	The Operator shall review the drainage systems used within the installation and identify those which are high risk in terms of the potential environmental impact of any leakage. The high risk drains should be surveyed to confirm or otherwise their integrity. The timescale for implementation of any necessary remedial work shall be agreed with the Agency.	1st May 2005
9.12	The Operators shall review current effluent treatment practice against BAT. The review shall include the assessment of options for reducing suspended solids and hydrocarbon oil discharges and assessment of the potential implications of reduced dilution effects in the event of improved reuse/recycling of site water (ref. Improvement Item 9.10). A report shall be submitted to the Agency that includes implementation plans for adoption of agreed measures.	1st July 2005
9.13	The Operator shall implement the identified measures from 9.12 such that the revised limits for hydrocarbon oil limit of 5mg/l and suspended solids limit of 50mg/l can be adopted.	1st July 2006

Note

1. Or as otherwise agreed in writing by the Environment Agency

10 Interpretation

10.1.1 In this Permit, the following expressions shall have the following meanings:

"Authorised Officer"
means any person authorised by the Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, powers specified in Section 108(4) of that Act.

"Background concentration"
means the same as "background quantity" as defined in paragraph 11 to Part 2 to Schedule1 of the PPC Regulations.

"Fugitive emission"
means an emission from any point other than those specified in the Tables in part 6 of this Permit.

"LAeq"
means the A-weighted equivalent continuous equal energy level (dBA)

"Monitoring"
includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys.

"Permitted Installation"
means the activities and the limits to those activities described in Table 1.1.1 of this Permit.

"PPC Regulations"
means the Pollution Prevention and Control Regulations 2000 (S.I. 2000 No. 1973) and words and expressions defined in the PPC Regulations shall have the same meanings when used in this Permit.

"Staff"
includes employees, directors or other officers of the Operator, and any other person under the Operator's direct or indirect control, including contractors.

"substances prescribed for water"
means those substances mentioned in paragraph 13 of Part 2 of Schedule 1 to the PPC Regulations.

"year"
means year ending 31 December.

"quarter"
means a period of 3 successive calendar months commencing on 1 January.

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

10.1.3 Unless otherwise stated, any references in this Permit to concentrations of substances in emissions into air means;

a in relation to gases from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or

b in relation to gases from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

11 Written agreement to changes

11.1.1 When the qualification "or as otherwise agreed in writing" is used in a condition of this Permit, the Operator shall seek such agreement in the following manner:

a the Operator shall give the Agency written notice of the details of the proposed change, indicating the relevant part(s) of this Permit; and

b such notice shall include an assessment of the possible effects of the proposed change (including waste production) on risks to the environment from the Permitted Installation.

11.1.2 Any change proposed according to condition 11.1.1 and agreed in writing by the Agency, shall not be implemented until the Operator has given the Agency prior written notice of the implementation date for the change. As from that date, the Operator shall operate the Permitted Installation in accordance with that change, and any relevant documentation referred to in this Permit shall be deemed to be amended.

Schedule 1

Confirmation of condition 5.1.1 notifications, in accordance with condition 5.1.2

This Schedule outlines the information that the Operator must provide to the Agency to satisfy condition 5.1.2 of this Permit.

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

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

Returns should contain

Part A

- ☐ Name of Operator.
- ☐ Permit Number
- ☐ Location of Installation.
- ☐ Date information provided.
- ☐ Time, date and location of the emission.
- ☐ Identity and details of the substance[s] emitted to include:-
  - ☐ Best estimate of the quantity or the rate of emission, and the time during which the emission took place.
  - ☐ Environmental medium into which the emission took place.
  - ☐ Measures taken, or intended to be taken, to stop the emission.

Part B

- ☐ Any more accurate information on the matters notified under Part A.
- ☐ Measures taken, or intended to be taken, to prevent a recurrence of the incident.
- ☐ Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment or harm which has been or may be caused by the emission.
- ☐ The dates of any Part A notifications within in the previous 24 months.

☐ Name ☐ Post.....

☐ Signature ☐ Date

☐ Statement that signatory is authorised to sign on behalf of Corus UK Ltd.

Schedule 2

Reporting of monitoring data

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

Table S2: Reporting of monitoring data			
Parameter	**Emission point**	**Reporting period**	**Period begins**
Particulate mg/m³	A10, A12 A13	Every 12 months	1 January 2004
Oxides of nitrogen (as NO_2) mg/m³	A1, A2, A3, A4, A5, A11, A14, A15, A16	Every 3 months	
Carbon monoxide mg/m³	A1, A2, A3, A4, A5, A11, A14, A15, A16	Every 3 months	
Hydrogen chloride mg/m³	A6, A7	Every 3 months	
	A8	Every 12 months	
Oil mist mg/m³	A9	Every 12 months	
Metals(1) mg/m³	W1	Every 3 months	
pH	W1	Every 3 months	
Suspended solids mg/l	W1	Every 3 months	
Total hydrocarbon oil mg/l	W1	Every 3 months	
Maximum flow m3/day	W1	Every 3 months	
Ammoniacal nitrogen	W1	Every 3 months	
Monohydric phenol	W1	Every 3 months	
Cyanide	W1	Every 3 months	
Benzene	W1	Every 3 months	
Gas oil sulphur content, %w/w		Every 3 months	
Energy		Every 12 months	
Waste		Every 12 months	

Notes

1. Metals means elements and compounds expressed as the metal and includes As, Cd, Cr, Cu, Hg, Ni, Pb, Zn, Fe, Pb

Schedule 3

Forms to be used

Unless otherwise agreed in writing between Agency and the Operator, the following Agency forms are to be used for reports submitted to Agency.

Table S3:Reporting Forms		
Media/parameter	**Form Number**	**Date of Form**
Air	A1	4/12/03
Water	W1	4/12/03
Energy	EW1	4/12/03
Waste Return	R1	4/12/03
Performance Indicators	PI1	4/12/03

Operators written reports to be submitted by 31 January each year

1. EMS Key Performance Indicators required by condition 4.1.4 and 4.1.7.
2. Fugitive emissions report required by condition 4.1.5.

END OF PERMIT