



**ENVIRONMENT
AGENCY**

Permit with introductory note

Pollution Prevention and Control Regulations 2000

Alphasteel Ltd
Corporation Road, Newport
NP19 4XE

Permit number

BL4885

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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 Part 1 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

This permit covers electric arc furnace (EAF) steelmaking, casting and rolling to produce engineering steels.

Scrap steel is delivered by road and stored on hard ground in a purpose built area, segregated according to type. Blends of scrap are melted in 125 tonne capacity EAF units 'A' and 'B'. The furnaces have water cooled walls and roof and refractory hearth and slagline. Three to five baskets of selected scrap are charged to the furnace along with up to 5 tonnes of lime. Within 70 minutes the scrap is brought to a liquid state by striking an electric arc between the scrap and three graphite electrodes. Oxygen is used to assist this melting process. The liquid steel is then refined to a suitable analysis by oxygen injection and reactions of the lime and steel. The lime forms a slag and is poured off the surface of the melt into a slag bed on the melting shop floor inside the building. When solid, the slag is removed from the building by a mechanical shovel by a contractor.

When the molten steel is at the required temperature it will be tapped into a ladle. The ladle is then stirred using an inert gas through a refractory lance to homogenise both temperature and analysis. When the steel is at the correct temperature the ladle is positioned above the tundish feeding a continuous casting machine. Molten steel is teemed from the ladle to the tundish, then from the tundishes into a water-cooled copper mould(s). The moulds form the shape of the product and spray water cooling completes final solidification. The product (billets and slabs) is then cut to required lengths by shears or gas cutting torches. Product is then transferred to a storage bay within the main building, prior to consumption in one of three rolling mills within the installation. Slabs are also imported for rolling, at the adjacent Alphasteel jetty.

There are three mill lines:

1. The Delta mill with 24 stands producing wire rod in coil form.
2. The Epsilon mill with 20 stands producing reinforcing bar.
3. The Gamma mill which uses 6 continuous stands to produce coiled strip.

Products are stored in stockyards prior to export by road, rail or ship.

Controlled emissions to air comprise:

1. Primary fume system collecting fume from the furnaces and exhausting through bag filter plant No. 1, an open top pulse jet unit at the South end of the furnace building (A1).
2. Secondary fume system collecting fume from the furnace building and exhausting through bag filter plant No. 2, also an open top pulse jet unit at the South end of the furnace building (A2).
3. A 21metre high stack on a natural gas fired 24.4 MWth reheat furnace on the Delta Mill (A3).
4. A 21 metre high stack on a natural gas fired 24.4 MWth reheat furnace on the Epsilon Mill (A4).
5. A 34.6 metre high stack on a natural gas fired (low NOx burners) 93 MWth reheat furnace on the Gamma Mill (A5).

Fugitive emissions to air should be rare but may occur from the furnace building if the primary and secondary fume systems are overwhelmed due to an operational problem.

Surface water and rain water are discharged to St Julian's Pill (leading to the river Usk) at point W1.

Solid wastes go to the Sloblands onsite landfill and off-site.

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
Alphasteel Ltd	AQ9944	28/7/95
Alphasteel Ltd	AT9840	8/3/96

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 BL4885	Received 31/8/01	
Response to request for information	Request dated 6/11/01	Response dated 10/1/01, 16/4/02, 12/6/02, 3/9/02, 5/11/02
Landfill removed from scope of application	Letter dated 30/8/02	Modification to PPC Regulations by the Landfill Regulations
Request to extend determination	Request dated 29/10/02	Request accepted 30/10/02
Permit BL4885	Determined 30/09/03	

End of introductory Note.

Permit

Pollution Prevention and Control
Regulations 2000



**ENVIRONMENT
AGENCY**

Permit

Permit number

BL4885

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

Alphasteel Limited ("the Operator"),

whose Registered Office is

Carmelite

50 Victoria Embankment

London EC4Y 0DX

Company registration number 1165160

to operate an Installation at

Corporation Road, Newport NP19 4XE

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

Signed

Mr J Tomala

Authorised to sign on behalf of the Environment Agency

Date

30 September 2003

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

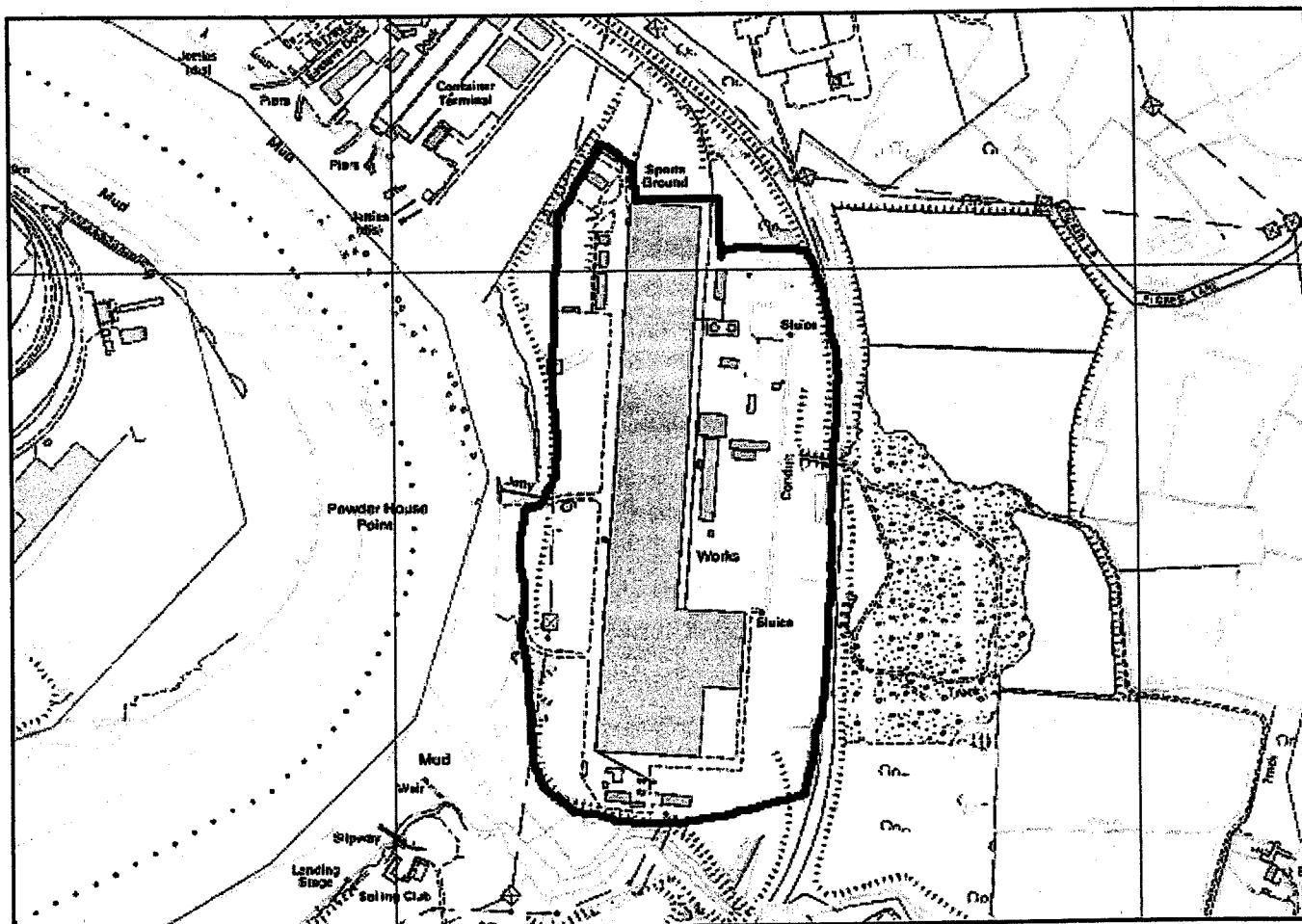
Activity under Schedule 1 of the Regulations/ Associated Activity	Description of specified activity	Limits of specified activity
2.1 Part A (I) (b)	Making and refining steel in an EAF >7 tonnes per hour capacity.	(1)
2.1 Part A (I) (c)	Processing ferrous metals and their alloys by hot-rolling with a capacity >20 tonnes per hour.	(1)
1.1 Part A (I) (a)	Combustion of fuel in appliances with a rated thermal input > 50 MWth.	(1)
Associated activity	Slag handling and processing.	(1)
Associated activity	Surface rectification.	(1)
Associated activity	Heat treatment	(1)
Associated activity	Product machining finishing, handling and storage.	(1)
Associated activity	Plant services including:- steam raising compressed air and cooling.	(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 of this Permit, be managed and controlled as described in the application dated 30 August 2001 and in the responses to a Schedule 4 Notice dated 6 November 2001 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 area shown edged in black on the plan below



One Centimetre = 0.098 Km
Km 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9

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	31/8/01
Response to Schedule 4 Part1 Notice	Response to question B2.1	10/04/02

- 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.
- 2.1.6 A visual observation plan shall be operated on the Site (including scrap yard) for detecting and reporting uncontrolled emissions to air. A plant record shall be maintained of the observations made and any remedial actions taken to prevent the releases. The scrap storage area shall be operated to minimise the generation of airborne dust. A procedure shall be operated for controlling dust generation, including vehicle movements and the procedure shall be enforced by regular inspection by the Operator.

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	31/8/01
Response to Schedule 4 Part 1 Notice	Response to question B2.2	16/04/02

- 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. *eg Buncfield*

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	31/8/01
Response to Schedule 4 Part 1 Notice	Response to question B2.3	16/04/02

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	31/8/01
Response to Schedule 4 Part 1 Notice	Response to questions B1.3 and B2.4	16/4/02

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.

2.4.3 Ferrous scrap for use in the process shall be stored in a manner which will prevent the contamination of groundwater.

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	31/8/01

- 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 ¹	Manner of Storage	Storage Conditions
EAF slag		Segregated area	Sent for processing off-site and then use as aggregate
Ladle slag		Segregated area	
Baghouse dust		Bulk bags in segregated area	Sent for zinc recovery or off-site landfill
Fine millscale		Segregated area	Concrete hard standing. Sent for use by 3 rd party.
Coarse millscale			
Waste water/glycol		Drums in segregated area	Drums to be clearly marked, held on contained concrete hard standing with bund such that it would contain at least 110% of the contents of the largest drum
Miscellaneous waste oil			Special waste. Drums to be clearly marked, held on contained concrete hard standing with bund such that it would contain at least 110% of the contents of the largest drum
Refractories		Segregated area	Sent with EAF slag for processing off-site and then use as aggregate
General wastes		Covered skips	To be deposited within 24 hours of the container becoming full

Note:

1. Refers to Ref No. in Figure 2.5(2) of Application.

- 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	31/8/01

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	31/8/01
Response to Schedule 4 Part 1 Notice	Response to question B2.7	16/04/02

- 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	31/8/01
Response to Schedule 4 Part 1 Notice	Response to question B2.8	16/04/02

- 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	31/8/01

- 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.

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	31/8/01
Response to Schedule 4 Part 1 Notice	Response to question B2.10	16/4/02

- 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
Sulphur Dioxide	BS 6069: Section 4.4: 1993 (ISO 7935:1992)
Carbon Monoxide	ISO12039
Nitrogen Oxides	ISO10849
Hydrogen Fluoride	USEPA Method 13B
Dioxins/Furans	BS EN1948
Metals	USEPA Method 29

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	31/8/01

2.12

Multi-operator installations

2.12.1

This is not a multi-operator installation

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. The report shall include any measurements taken to quantify the release of substances for which Air Quality Standards or Guidelines exist.
- 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

Melting Shop and Casting Bay	Substances released into air per tonne of liquid steel cast: CO ₂ ; NO _x (as NO ₂); particulate ⁽¹⁾ and metals	Substances released into water ⁽²⁾ per tonne of liquid steel cast. To include; suspended solids; oil/grease; COD and metals ⁽¹⁾	Total water ⁽³⁾ supplied per tonne of liquid steel cast	Waste disposal per tonne of liquid steel cast (excluding material sent for recovery)
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Reporting

Delta, Epsilon & Gamma Mills, including reheat furnaces	Substances released into air per tonne of finished product. To include: CO ₂ ; NO _x (as NO ₂); particulate and metals ⁽¹⁾	Substances released into water ⁽²⁾ per tonne of finished product. To include: suspended solids; oil/grease; COD and metals ⁽¹⁾	Total water ⁽³⁾ supplied per tonne of finished product	Waste disposal per tonne of finished product (excluding material sent for recovery)
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Notes:

- (1) Metals include As; Cd, Cr; Cu; Hg; Fe; Pb; Mn; Ni; Zn.
- (2) The waste water released from the Installation should equate to the respective releases from the steel making, rolling, heat treatment and other finishing operations.
- (3) Total water supplied to the Installation shall include Towns Water and abstracted River Water.

4.1.8

The Operator shall monitor on a bi-annual basis the deposition of dust, the concentration of PM₁₀ and the concentration of NO_x in order to assess the contribution made to local levels by the Alphasteel Works. The monitoring shall be agreed in writing by the Environment Agency and include:

- The deposition of dust upwind and downwind of the Installation particularly taking into account the scrap yard and the handling and processing of steelmaking slag.
- The directional dust flux upwind and downwind of the Installation particularly taking into account the scrap yard and the handling and processing of steelmaking slag.
- PM₁₀ concentrations.
- NO_x concentrations.

The Operator shall demonstrate that the selection of monitoring locations will not under represent concentrations of the above substances experienced in the local community.

The Operator shall submit a written environmental monitoring report to the Environment Agency. The first report shall be submitted by 31 December 2005.

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 1 year; 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:

- i** any change in the Operator's trading name, registered name or registered office address;
- ii** 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);
- iii** 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	Primary fume system	Bag filter plant No. 1 at Point 5 on site plan
A2	Secondary fume system	Bag filter plant No. 2 at Point 6 on site plan
A3	24.4 MWth reheat furnace on Delta Mill	Stack at Point 8 on site plan
A4	24.4MWth reheat furnace on Epsilon Mill	Stack at Point 9 on site plan
A5	93 MWth reheat on Gamma Mill	Stack at Point 7 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

Parameters	Emission Point				
	A1	A2	A3	A4	A5
Particulate mg m ⁻³	15 ¹	15 ¹	-	-	-
Frequency of monitoring	quarterly	quarterly			
Oxides of nitrogen (as NOx) mg m ⁻³	To be reported	To be reported	400 ²	400 ²	400
Frequency of monitoring	quarterly	quarterly	quarterly	quarterly	quarterly
Carbon Monoxide mg m ⁻³	To be reported	To be reported	-	-	-
Frequency of monitoring	quarterly	quarterly			
Dioxins and furans ng/m ³	0.5	0.5	-	-	-
Frequency of monitoring	annually	annually			
Metals	To be reported	To be reported	-	-	-
Frequency of monitoring	annually	annually			

Notes:

1. A representative spot sample if monitoring is found to be practical. Otherwise - no visible fume and to be inspected every shift.
2. 1800 mg m⁻³ until low NOx burners fitted (or equivalent improvement).

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	Process effluent and surface waters	St Julian's Pill

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

6.3.3 The Operator shall carry out monitoring of the parameters listed in Table 6.3.2, from the emission points and at least at the frequencies specified in that Table.

Table 6.3.3: Emission limits into water

Parameter	Release Point	
	W1	Monitoring Frequency
pH ^{(1) (3)}	6-10	Weekly
Suspended solids (mg/l) ^{(1) (3)}	40	
Oil/grease (material soluble in 1,1,2-trichloro-trifluoroethane) (mg/l) ^{(1) (3)}	5	
Lead (mg/l) ^{(1) (3)}	0.2	
Nickel (mg/l) ^{(1) (3)}	0.5	
Arsenic (mg/l) ^{(1) (3)}	0.01	
Cadmium (mg/l) ^{(1) (3)}	0.05	
Chromium (mg/l) ^{(1) (3)}	0.2	
Copper (mg/l) ^{(1) (3)}	0.5	
Zinc (mg/l) ^{(1) (3)}	0.5	
Iron Compounds (mg/l) ^{(1) (3)}	5	

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-yearly period does 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.

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 No emission shall be made into any 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 transfer from the Permitted Installation shall be made to effluent treatment plant.

8

Off site conditions

8.1.1

There are no off site conditions.

9

Improvement programme

9.1.1

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	Install flue gas recycle for the Reheat Furnaces on the Delta and Epsilon Mills. Provide three copies of a written report assessing performance compared with BAT.	31 October 2003
9.2	Undertake a noise assessment to the satisfaction of the Environment Agency: (i) with rolling mills in operation; and (ii) with arc furnaces and rolling mills in operation Scope of assessment to be agreed before start. Three copies of a written report shall be submitted after (i) and (ii), comparing with BAT and giving a timetable for any improvements required to reach BAT.	30 November 2003
9.3	Complete groundwater protection measures specified in Habitats Addendum: securing the diesel tank and removing potential hotspots.	30 November 2003
9.4	Undertake a study into the feasibility of installing continuous NOx monitors to the reheat furnaces. Three copies of a written report shall be submitted.	31 December 2003
9.5	The Operator shall undertake a study into the feasibility of modifying monitoring arrangements for emissions into air so as to comply with the requirements of BS6069:Part 4.3: 1992 and Environment Agency Monitoring Guidance M1. Three copies of a written report shall be submitted.	31 December 2003
9.6	Investigate the feasibility of installing a continuous particulate monitor on release points A1 and A2 with an effective alarm to indicate a bag failure or trend leading to a possible exceedance of an emission limit value. Three copies of a written report shall be submitted.	Assessment by: 30 November 2003 Install by: 31 March 2004
9.7	A report shall be sent to the Agency on establishing an Environmental Management System having regard to section 2.1 of the relevant IPPC Sectoral or other Technical Guidance. The report shall include any proposals to implement such a programme	31 December 2003
9.8	Undertake a survey of all underground pipework and assess risk of leakage.	28 February 2004
9.9	The Operator shall monitor emissions of PM ₁₀ , NOx, PAH, PCBs, dioxins and metals into air from release points A1 and A2 whilst the EAFs are in normal operation over a continuous period of 8 hours. Also NOx from A3, A4 & A5. Monitoring plans should take account of any requirements for 9.12. Three copies of a written report shall be submitted.	28 February 2004
9.10	The Operator shall undertake a study to establish a control regime for minimising the release of NOx generated in the EAF. Three copies of a written report shall be submitted.	31 March 2004
9.11	The Operator shall update the air dispersion modelling assessment of the impact of substances monitored under Item 9.9. Three copies of a written report shall be submitted.	30 June 2004
9.12	The Operator shall undertake a health impact assessment based on guidance supplied by the Agency.	30 September 2004
9.13	Conduct a review of the options currently available worldwide for recycling EAF filter dust and select the option most likely to represent the BAT for the Alphasteel Works. Carry out an assessment of the selected technique and present the capital and operating cost parameters which	31 December 2004

would make the technique viable. Three copies of a written
report shall be submitted.

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 Schedule 1 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.

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 10.1.1 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 Alphasteel 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	A1, A2	Every 3 mths	1 January 2003 ^{2,3}
Oxides of nitrogen mg m ⁻³	A1, A2, A3, A4 and A5	Every 3 mths	
Sulphur dioxide mg m ⁻³	A1, A2	Every 12 mths	
Carbon Monoxide	A1, A2	Every 12 mths	
Hydrogen flouride	A1, A2	Every 12 mths	
VOC as Carbon	A1, A2	Every 12 mths	
Dioxin/furan	A1, A2	Every 12 mths	
Metals	A1, A2	Every 12 mths	
Suspended solids	W1	Every 3 mths	
Oil and grease	W1	Every 3 mths	
pH	W1	Every 3 mths	
Zinc	W1	Every 3 mths	
Metals ⁽¹⁾ and iron	W1	Every 3 mths	
Energy		Every 12 mths	
Environmental monitoring		Bi-annually	
Borehole monitoring		Annual	
Waste		Every 12 mths	

Notes:

1. Metals includes elements and compounds of Pb, As, Cd, Cr, Ni, Cu, Hg and Zn expressed as the metal and shall be individually reported.
2. Reporting to approximate with calendar quarters.
3. Reporting may be suspended by written agreement of the Environment Agency.

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	12/01/03
Air	A2	12/01/03
Water	W1	12/01/03
Water	W2	12/01/03
Energy	E1	12/01/03
Waste Return	R1	12/01/03

Operators written reports to be submitted by 31 January each year

1. EMS (KPI) reports required by condition 4.1.4 & 4.1.7.
2. Fugitive emission report required by condition 4.1.5.
3. Environmental monitoring required by condition 4.1.5.

END OF PERMIT
