

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Kent Enviropower Limited

Allington Incinerator
Allington Quarry
Laverstoke Road
Maidstone
Kent
ME16 0LE

Variation application number
EPR/BR4551IC/V008

Permit number
EPR/BR4551IC

Allington Incinerator

Permit number EPR/BR4551IC

Introductory note

This introductory note does not form a part of the notice.

Under the Environmental Permitting (England & Wales) Regulations 2010 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal

This variation permits the following changes requested by the operator:

1. Change the short term emission limit for total organic carbon (TOC) from the current $\frac{1}{2}$ hour absolute figure of 20mg/m^3 to 10mg/m^3 for the 97% of the half-hourly averages in a year. This is allowed under annex VI of the Industrial Emissions Directive.
2. Amend the definition of start up and shut down to provide a clear definition of the transition point from start up to operation, and from operation to shut down.
3. The primary air for combustion is currently drawn from above the waste bunker. This keeps the waste bunker under negative pressure, minimising fugitive releases of dust or odour from the waste storage or delivery areas. Any combustible contaminants in the air are destroyed by combustion in the furnaces. This variation allows the operator to modify the primary air inlet duct for each waste stream, so that fresh air can be drawn from outside the bunker storage area as well as from the waste bunker. During start-up and shutdown, primary air would be drawn from outside the bunker storage area. Primary air would continue to be drawn from the waste bunker for the streams which are online. This is to prevent air with a high VOC content being emitted through the stacks when the combustion plant is not operational.
4. Total organic carbon and loss of ignition limits for bottom ash amended in line with the IED

This variation also incorporates the changes required by the Industrial Emissions Directive (IED). This includes the amendment of the wording of several permit conditions relating to notifications, and also includes the addition of a condition relating to a requirement for monitoring of groundwater and soil.

This variation also includes a few amendments to bring the permit in line with current energy from waste permits and the IED. This includes the amendment to conditions 2.3.6, 2.3.7 and 2.3.9 to require waste to cease charging under relevant conditions. It also includes the addition of the permit condition 2.3.13 requiring at least one auxiliary burner to

be in operation in each line at start up or shut down or whenever the operating temperature falls below 850°C, as required by the IED.

Summary of Process,

The purpose of the Installation is to receive municipal and industrial waste, to recover recyclable elements for reuse and to recover the energy available from combustible element of the residue by incineration in a fluidised bed furnace. Energy is recovered from the incineration process and converted to electricity for export to the National Grid. The combustion gases are cleaned to meet the standards required by the Industrial Emissions Directive before discharge from a tall chimney. Ashes and other solid residues are removed from the installation.

The Installation covers the site and the entire incineration plant including all incineration lines, waste reception, storage, on-site pre-treatment facilities, water, fuel and air supply systems, boiler, facilities for the treatment of exhaust gases, on-site facilities for treatment or storage of residues and waste water, stack, devices and systems for controlling incineration operations, recording and monitoring conditions.

The plant has a design throughput of around 580,000 tonnes per annum with an incineration capacity around 500,000 tonnes per annum. There is a single waste reception, materials recycling and preparation section followed by three independent incinerator lines each complete with a heat recovery boiler, acid gas abatement, bag filter and a separate flue in the chimney. The heat produced from the incineration of the waste is used to generate steam in the boilers and the steam is then combined and passed to a steam turbine which generates some 34.5 MW of electrical energy for export to the National Grid.

Raw Materials

Waste is delivered to the plant in road vehicles which are weighed before proceeding to the tipping hall. This is a fully enclosed building, maintained under slight negative pressure to ensure that no odours, dust or litter can escape the building. The vehicles carry either unsorted mixed municipal waste, sorted waste for recycling or mixed recyclable waste and non recyclable waste and each tip into the appropriate section of the tipping hall.

The unsorted mixed waste (black bag) is transferred by crane grab to a waste shredding line, it then moves forward through a metals extraction section where ferrous metals are removed for recycling before moving to the prepared fuel bunker.

The facility also operates as a waste transfer site. It receives clean mixed recyclates and food wastes collected in the community and loads them in bulk onto their designated transport vehicles for transport off site for recovery.

A crane grab in the prepared fuel bunker both mixes the waste and charges the hoppers of the three incineration lines.

Hydrated lime for the flue gas cleaning process is delivered by bulk tanker and offloaded pneumatically into three 125m³ silos vented through a reverse pulse jet filter.

Activated carbon for the flue gas cleaning process is stored in dedicated silos that are pneumatically filled from delivery trucks. There are three silos, one for each line, each equipped with filters to prevent dust emissions during filling.

Urea, dissolved in water is stored in a fully bunded tank and is injected into the furnaces as necessary to control Nox emissions.

Caustic soda for water treatment resin regeneration is delivered by bulk tanker and offloaded into a 5.5 m³ tank with scrubber, inside the demineralisation area.

Hydrochloric acid for water treatment resin regeneration is delivered by bulk tanker and offloaded into a 5.5 m³ tank vented through caustic soda scrubber in a bund outside the demineralisation area.

Various other water treatment chemicals are delivered in appropriate containers and stored in bunded areas.

Gas oil for the combustion chamber burners and on-site vehicles is stored in a fully bunded 150 m³ tank.

Sand for the fluidised bed furnaces is stored in 3 silos each of 55 cubic meters capacity.

Various maintenance materials (oils, greases, insulants, antifreezes, welding and fire fighting gases etc.) are stored in the appropriate manner.

Combustion Process

The technology employed for incineration is the ROWITEC unit which uses a fluidised bed process. The design has an inclined air distributor plate with a number of separate air supply chambers providing differential air flows across the bed, causing a revolving action. This technique promotes rapid and uniform mixing of the sand and bottom ash and ensures that heavy inert and non-combustible material migrates to the sides of the bed where they can easily be removed.

An angled furnace wall above the fluidised bed zone restrains bed expansion under high fluidising air flows and so minimises particulate carry over. The elliptical patterns of air flow converge in the centre of the combustion area ensuring effective vertical and lateral turbulent mixing and high combustion efficiency and uniformity.

The waste is burned on a bed consisting of sand and ash that is held in suspension by an upward flow of combustion air that circulates the combustion mixture up to the throat of the furnace.

The furnace operating design is based on a thermal capacity of 53.8MW at full load and this can be achieved over a the typical range of waste calorific values expected with municipal waste.

The combustion air system provides the furnace with the total air requirements for fluidisation and combustion. Primary air is supplied to the bottom of the combustion chamber and fluidises the bed. This air is extracted from the waste reception and storage buildings and destroys all odours in the combustion chamber.

Each furnace is equipped with two fuel oil burners for use at start-up to heat the furnace and also during extreme reductions in waste fuel calorific value when the temperature of the furnace would otherwise fall below 850 degrees Centigrade.

Combustion control of the furnace will be achieved through a combination of furnace bed and freeboard temperature control, primary air flow control, oxygen control within the flue gas and furnace load.

Recirculated flue gas is fed to the furnace bed as a cooling medium to control the furnace bed temperature and also to assist the control of Nox by influencing the combustion temperature conditions within the furnace.

The furnace bed is managed to remove non-combustible material (bottom ash) from the bed and maintain the sand level within the optimum operating range. Bottom ashes produced in the furnace together with sand migrate down the slope of the furnace to the discharge section located at each side of the bed. The bottom ash and sand are both withdrawn from the discharge sections of the bed by two water-cooled discharge screw conveyors. Material passing out of the screw conveyors is discharged to a vibrating screen. Undersize material is returned to the sand hopper for re-use within the furnace while the oversized material is sent off site for recovery or re-use or landfill.

Energy Recovery

Hot gases from the furnace pass through to a boiler designed to generate steam. The boiler comprises two fully water cooled radiation chambers, a single pass horizontal plain tube convective heating surface, incorporating a three stage convective superheater unit and a plain tube economiser section. The economiser is designed for high velocity gas flow to minimise the reformation of dioxins in the critical de Novo synthesis range.

Steam is generated at 65 bar and a final temperature of 420 degrees Centigrade.

The high pressure steam from all three boilers feeds into a common header which in turn will feed a condensing steam turbine that will generate electricity. Steam exiting the turbine will be condensed in an air cooled condenser and the condensate returned to the boilers.

Gas Cleaning

The plant is designed to meet the requirements of the Industrial Emissions Directive as a minimum for releases to air by a combination of main process design and operation and abatement equipment.

Flue gases pass from the boiler to the gas cleaning equipment. The gas passes to an electrostatic precipitator (ESP) for the separation of ash carried over from the furnace with the flue gas. Material collected in the ESP will be discharged by means of rotary valves and chain conveyors and then pneumatically fed to the ash silos or re-injected into the flue gas cleaning system..

Gases leaving the ESP enter the gas cleaning system. This comprises a circo clean reactor and bag filter system. Gases entering the circo clean reactor will be at a temperature of 190 to 230 degrees C and will come into contact with a mixture of water, hydrated lime and activated carbon that have been injected into the reactor. The reactor is designed to reduce or remove acidic pollutants such as HCl, SO₂ and HF by the use of the hydrated lime and dioxins and furans, PCBs, PAHs, mercury vapour and heavy metal salts such as mercury chloride by the use of the activated carbon. The injected water enhances the reactions and

cools the gas. The control system of the circo clean reactor optimises the use of reactants by balancing the feed rate with the concentration of the pollutants entering the circo clean reactor.

The final stage of the gas cleaning system is the bag filter unit which separates the particulate material from the flue gas. The baghouse filter consists of compartments each of which contains a number of tubular filter bags. A thick porous layer of particulate builds on the bag surfaces to form a filter cake which efficiently removes ultra fine particles from the gas stream and the excess lime continues to react with the acid gases.

Bag house residue is discharged from the compartments via the integrated buffer storage by a closed pneumatic conveying system into the reaction product silos. Silos are equipped with a filter, hopper heating and fluidisation system to assist discharge. The residue is then discharged directly into road vehicles under dust free conditions for transport off site to a licensed facility.

Nitrogen oxides (NO_x) abatement is achieved by the use of both flue gas recirculation (FGR) and selective non-catalytic reduction (SNCR). The SNCR is based on the injection of urea into the furnace chambers before the boilers and before the lime and carbon injection and before the gas passes to bag filters.

The cleaned gas then discharges to atmosphere via three 80-metre flues in a common stack both at an efflux velocity in excess of 15 ms⁻¹ at maximum throughput.

Ancillary Operations

Demineralised water is required to compensate for boiler blowdown losses. A package demineralisation plant provides this water. The ion exchange resins are regenerated using sodium hydroxide and hydrochloric acid and the regeneration effluent is routed through a neutralisation tank to the collection pit for reuse where possible.

Ash Handling

Bottom ash, the combined boiler and ESP ash and the flue gas treatment residue (FGTR) from the bag filter system, are each sent for separate disposal off site by licensed contractors subject to waste licensing legislation. FGTR is not mixed with any other ash at any time. The bottom ash is likely to be subject to ferrous and non ferrous metals extraction by the contractors before disposal or reuse. All operations will be subject to waste licensing legislation and be tracked by the Environment Agency. At least quarterly sampling of the bottom ash will be carried out to ensure effective burn out is being achieved by testing for the "loss on ignition" of the residual ash. All other solid waste residues arising from the operation of the process will be removed from site, in enclosed containers, for disposal by suitable contractors.

Liquid Effluent and Site Drainage

Uncontaminated surface water from roads and parking area that is not reused within the process will be discharged to sewer.

Emissions Monitoring

Emissions from the stack are continuously monitored for: particulate, carbon monoxide (CO), ammonia (NH₃), sulphur dioxide (SO₂), hydrogen chloride (HCl), oxygen (O₂), nitrogen oxides (NO_x) and volatile organic compounds (VOC). In addition periodic sampling

and measurement will be carried out for metals cadmium (Cd), thallium (Tl), mercury (Hg), antimony (Sb), arsenic (As), lead (Pb), chromium (Cr), cobalt (Co), copper (Cu), manganese (Mn), nickel (Ni), vanadium (V)], dioxins and furans, dioxin like PCBs, hydrogen fluoride (HF) and nitrous oxide (N₂O). Periodic measurements will be carried out four times in the first year and thereafter either at the same frequency or twice per year dependant on the substances.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application BR4551(A001)	Duly made 04/02/02	Received 31/01/2002
Response to request for information (Sch 4)	Requested 18/04/02	Response dated May 2002
Response to request for information(Sch 4)	Requested 30/04/02	Response dated 13/06/02
Supplementary information 1	Received 20/08/02	Groundwater & construction issues; Incoming waste handling and treatment; Boiler & Furnace issues; Clarification of relationship between KEL and WRG; Noise; Environmental Monitoring Programme; Revised General Layout Diagram
Supplementary information 2	Received 27/08/02	Revised details of incoming waste handling and preparation.
Supplementary information 3	Received 22/11/02	Revised BAT Assessment; Response to Comments; Phase 2 Site Report; Management Structure of KEL; Off-site monitoring programme
Copies of approvals from landowners for conducting off site monitoring programme	Received 11/03/03	Off site monitoring now in compliance with Regulations.
Supplementary information 4	Received 23/04/03	BAT Assessment for the Contribution from the Waste Management Facility to Acid Deposition at Wouldham to Detling Escarpment – report was at the request of English Nature.
Permit BR4551	Issued 27/08/03	
Variation BX4518 (V002)	Issued 03/03/04	Correction of Table 1.1.1 and revised site plan.
Variation GP3235LE (V003)	Issued 31/01/06	
Variation BP3837ML (V004)	Issued 20/03/07	
Variation AP3431UN (V005)	Issued 07/09/07	
Variation application	Duly made	

Status log of the permit

Description	Date	Comments
EPR/BR4551IC/V006	04/02/13	
Response to request for information dated 05/12/12	Received 18/04/13	
Response to schedule 5 notice dated 11/03/13	Received 20/03/13 and 18/04/13	Information regarding impact of increased CO emissions on environment
Variation determined EPR/BR4551IC	14/05/13	Variation issued
Agency variation determined EPR/BR4551IC/V007	05/09/13	Agency variation to implement the changes introduced by IED
Application EPR/BR4551IC/V008 (variation)	Duly made 26/03/14	Application to vary the permit
Further information	email dated 16/05/14	Request by operator to amend total organic carbon and loss of ignition limits for bottom ash in line with the IED
Variation determined EPR/BR4551IC	04/06/14	Varied and consolidated permit issued. Effective from 01/07/14

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

Permit number
EPR/BR4551IC

issued to:
Kent Enviropower Limited (“the operator”)

whose registered office is

Ground Floor West
900 Pavilion Drive
Northampton Business Park
Northampton
NN4 7RG

company registration number **2894377**

to operate a regulated facility at

Allington Incinerator
Allington Quarry
Laverstoke Road
Allington
Maidstone
Kent
ME16 0LE

To the extent set out in the schedules.

The notice shall take effect from 01/07/14

Name	Date
A.J. Nixon	04 June 2014

Authorised on behalf of the Environment Agency

Schedule 1

Only tables, schedules and conditions:

- Table 1.1.1 –amended wording of description of scheduled activity 5.4 A(1)(a)(ii).
- Conditions 1.1.3 a to o – recording the completion of all pre-operational conditions;
- Table 2.3.1 – addition of new operating conditions;
- Condition 2.3.6, 2.3.7 and 2.3.9 – amended to prevent the charging of waste during relevant conditions and to clarify the 60 hour abnormal operation limit ;
- Condition 2.3.5 amended to set total organic carbon and loss of ignition limits for bottom ash in line with the IED;
- Condition 2.3.10 amended to require the monitoring of parameters in table 2.3.10;
- Condition 2.3.13 – added to require at least one auxiliary burner to be in operation at start up or shut down or whenever the operating temperature falls below 850°C;
- Condition 4.1.1 – amended to remove reference to PPC regulations;
- Condition 4.1.9 – added to require an annual reporting requirement as required by the IED;
- Conditions 5.1.1 to 5.1.2 amended to use current IED wording;
- Table 6.1.3 – amended to change ½ hour TOC emission limit, and add footnotes;
- Conditions 2.2.2, 6.1.5 and 6.1.6 added stating "no condition applies" (actual conditions deleted by previous variations but new wording added to retain numbering);
- Condition 6.2.3 added to require periodic groundwater and soil monitoring as required by the IED;
- Table 9.1.1. – amended to record completion of old improvement conditions and addition of new improvement conditions;
- Condition 10.1.1 amended to add and amend definitions;
- Condition 10.1.4 amended to use current toxic equivalence factors;
- Schedule 1 notification – amended to use current permit template wording
- Schedule 3 table S3 – form dates amended

have been varied by the consolidated permit EPR/BR4551IC

- The following tables, schedules and conditions were varied as a result of an Environment Agency initiated variation:

- Table 1.1.1 ;
- Condition 1.1.3 a to o;
- Condition 2.3.6, 2.3.7 and 2.3.9;
- Condition 2.3.13;
- Condition 4.1.1;
- Condition 4.1.9
- Conditions 5.1.1 to 5.1.2;
- Condition 6.1.5 and 6.1.6;

- Condition 6.2.3;
- Table 9.1.1;
- Condition 10.1.4
- Schedule 1.

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

- Table 2.3.1;
- Table 2.10.7
- Table 6.1.3;
- Condition 10.1.1;

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number
EPR/BR4551IC

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BR4551IC/V008 authorising,

Kent Enviropower Limited (“the operator”),

whose registered office is

Ground Floor West
900 Pavilion Drive
Northampton Business Park
Northampton
NN4 7RG

company registration number **2894377**

to operate an installation at

Allington Incinerator
Allington Quarry
Laverstoke Road
Allington
Maidstone
Kent
ME16 0LE

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

Name	Date
A.J. Nixon	04 June 2014

Authorised on behalf of the Environment Agency

Conditions

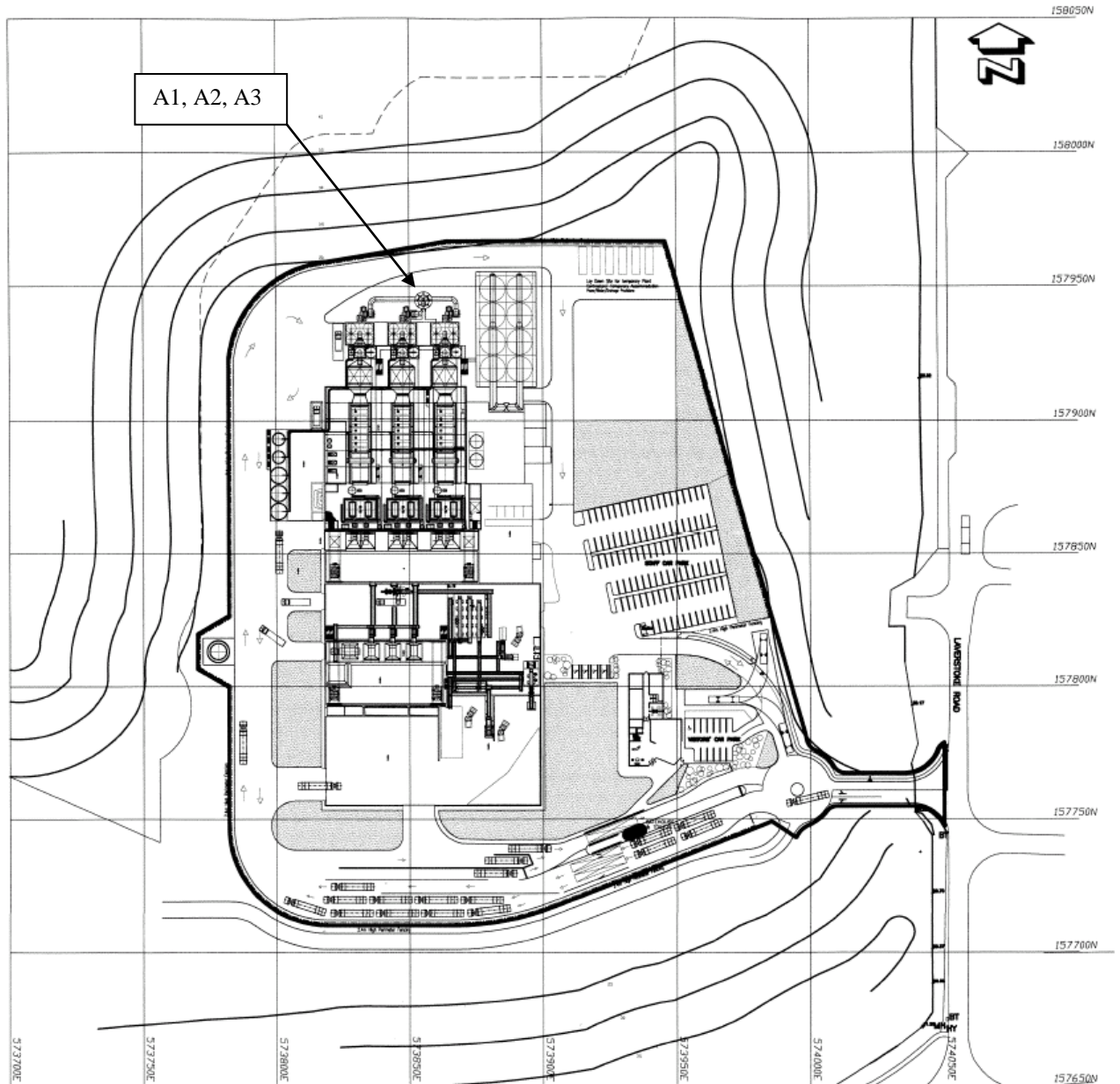
1. The Permitted Installation

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 activities

Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
5.4 A(1) a) (ii) Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving physico-chemical treatment	Operation of the materials recycling facility (MRF), removal of selected recyclable materials from the waste streams and the shredding of the residues.	Delivery of materials to the Materials Recovery Facility (MRF) including the storage of recyclable materials and transport from site.
5.1 A(1) b) The incineration of non-hazardous waste in an incineration or co-incineration plant with a capacity exceeding 3 tonnes per hour. (only municipal waste and equivalent categories of industrial and commercial waste is permitted)	Feedstock management, combustion operations, gas cleaning and discharge.	From feedstock management and selection to point of discharge to the environment.
Directly Associated Activity		
Receipt and storage of municipal waste and equivalent categories of industrial and commercial waste	Receive waste from external contractors and storage prior to processing.	Receipt of waste and storage in raw materials bunker.
Production of steam for generation of electricity and off site use	Steam Generation, turbine generator operation.	To output to grid of electricity. To discharge of steam off site.
Abatement of flue gas	Lime and activated carbon injection. Flue gas recirculation, Urea injection. Bag filter abatement.	Compliance with emission limits at release points specified.
Management of bottom ash and APC residues	Residue handling and storage.	Including loading and storage on off-site transfer vehicles as far as the site boundary.

1.1.2 The activities authorised under condition 1.1.1 shall not extend beyond the Site, being the area shown edged in **bold** on the plan below.



1.1.3 The Permitted Installation shall not be brought into operation until the following measures have been completed and the Agency has been notified in writing of this.

a On the completion of the final design of the waste reception, materials recycling facility and refuse derived fuel store, the Operator shall confirm by means of written report to the Agency that the design has adequate means to prevent odours reaching the installation boundary at all times that waste is present in the plant.

Measure completed.

b At least 2 months prior to the start of hot commissioning, the Operator shall repeat the full noise survey as carried out for the Application both for daytime and night-time. The Operator shall provide the results to the Environment Agency before commencing formal commissioning.

Measure completed.

c At least 3 months prior to the start of any plant construction activities the Operator shall provide a report of the details of the dioxin/furan, dioxin like PCBs, metals and fluoride levels in the soil and ground water of the Installation site.

Measure completed.

d Following the finalising of the design of the fluid bed incinerators and at least 6 months before hot commissioning, the Operator shall provide a report of the details of the computational fluid dynamic modelling of the combustion chambers. The details shall be sufficient to demonstrate that the incinerators are designed, equipped and be capable of being operated in such a way that the gases resulting from the process is raised, after the last injection of combustion air, in a controlled and homogeneous fashion and even under the most unfavourable conditions, to a temperature of 850°C, as measured near the inner wall or at another representative location as authorised by the Environment Agency, for two seconds.

Measure completed.

e At least 3 months prior to the start of hot commissioning, the Operator shall provide the plant design details of the sampling and monitoring positions for both continuous and spot monitoring. The details shall be sufficient for the Agency to determine the suitability of the position(s).

Measure completed.

f At least 3 months prior to the start of hot commissioning the Operator shall provide a report of the results of the background air quality monitored for the parameters, at the locations and over the time period specified in the Application.

Measure completed.

g At least 3 months prior to the start of hot commissioning the Operator shall provide a report of the results of the background soil quality monitored for the parameters, at the locations and over the time period specified in the Application.

Measure completed.

- h At least 3 months prior to the start of hot commissioning the Operator shall provide a commissioning plan for approval by the Agency. The plan shall be designed to establish that permit conditions can be met under all anticipated operating conditions and shall confirm commissioning start date, plant monitoring protocols and a proposed full operation start date.
Measure completed.
- i The Operator shall maintain a full set of “frozen” P & ID documents on-site. These shall be made available to the Agency upon request.
Measure completed.
- j At least 3 months prior to hot commissioning the Operator shall obtain permission from Southern Water for releases to their sewer.
Measure completed.
- k No condition applies.
- l At least 3 months prior to the start of hot commissioning the Operator shall agree with the Environment Agency a suitable format using the latest information technology systems for reporting of the information and emission monitoring data required in this permit.
Measure completed.
- m Prior to hot commissioning, the operator shall develop procedures for the provision of continuous emission monitoring results on the internet, in a format similar to that provided to the Agency. CEM data shall be posted on the internet on a monthly basis after hot commissioning commences.
Measure completed.
- n At least 2 months prior to the start of hot commissioning the Operator shall provide to the Agency for approval, the following documents demonstrating that BAT is used:-
 - i. An accident prevention plan
 - ii. An emergency plan
 - iii. A site closure plan
 - iv. A Site plan showing the location of each vessel used to hold raw materials within the installation. The Operator shall also provide a table detailing the material held in each vessel, the holding vessel size, bunding capacity and bund design. Each vessel shall be identified by a unique reference.
 - v. A groundwater monitoring plan to prove the integrity of the installation in preventing emissions to groundwater.
Measure completed.
- o At least 2 months prior to the start of hot commissioning, the Operator shall provide in writing to the Agency full details of all continuous and periodic monitoring arrangements and facilities that comply with CEN standards, unless otherwise agreed in writing with the Agency. The submission must include plant and equipment details, methods and standards for sampling and analysis.
Measure completed.

The Operator shall operate the Installation in accordance with these documents unless otherwise agreed in writing by the Agency.

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 the Application. (Chapter 2 pages 14-16)	31.01.2002

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 are qualified as a fit and proper person (FAPP) under Regulation 10 (4) (a) and are 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 Unless otherwise agreed in writing with the Agency, waste shall not be accepted at the installation if it is not possible to maintain negative pressure in the incinerator or MRF building.

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 the Application. (Chapter 2 pages 16-23)	31.01.2002

2.2.2 No condition applies

2.2.3 The materials detailed in Table 2.2.3 shall be stored in the location and manner specified in that table.

Table 2.2.3 : Raw materials (including water)			
Material	Location of Storage on site	Manner of Storage	Storage Conditions
Municipal waste and equivalent industrial waste	Main reception hall	Waste bunker	Dedicated contained concrete bunker
Lime	Outside building	Silos with self cleaning filter on vent	Delineated storage area with controlled drainage
Urea	Inside building	Fully banded tank	Delineated storage area with controlled drainage
Activated Carbon	Outside building	Silo	Delineated storage area.
Fuel Oil (start up and site vehicles)	As detailed in application	Bulk tank with level alarm	Banded area, including transfer connections
Lubricating oils and other maintenance fluids	As detailed in application	Sealed drums and other sealed containers	Within banded, covered storage areas
Boiler feed water	As detailed in application	Bulk tank	
Water treatment chemicals	As detailed in application	Sealed drums and other sealed containers	Within banded, covered storage areas

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 the Application. (Chapter 2 pages 24-50)	31.01.2002
Response to Schedule 4 Notice Dated 18.04.02	Response to questions 6, 7, 8, 9, 10, 11, 12, 13, and 16.	May.02
Application EPR/BR4551IC/V008	Response to section 3 of part C3 of application form. Section 3 "Start up and Shut down" and section 4 "Combustion Air" of the "EP Variation Supporting information" document	Duly Made 26/3/14

2.3.2 Only the waste types and quantities specified in Table 2.3.2 shall be incinerated in the Permitted Installation.

Table 2.3.2: Permitted Waste Types		
Description	European Waste Catalogue Number (Where Available) or other specification	Nominal design throughput
Mixed Municipal Waste and the equivalent categories of industrial and commercial waste.	<p>Shredding 191001, 191002, 191004, 191006</p> <p>Mechanical Treatment 191201, 191202, 191203, 191204, 191205, 191207 191208,191210,191212</p> <p>Separately Collected Fractions 200301,200302,200303, 200101,200102,200108, 200110,200111,200138 200139, 200140,</p>	500, 000 tonnes per annum (1)

Note: (1). At design calorific value of the waste and assuming 7800 hrs operation.

- 2.3.3 The Operator shall adopt procedures and practices to, as far as practicable, identify and manage the wastes delivered to the process such that the conditions of this permit are not breached and waste feed failures are minimised.
- 2.3.4 The Operator shall adopt and carry out procedures and practices to monitor, record and control pests, odour and litter.
- 2.3.5 The incinerator bottom ash shall have a total organic carbon (TOC) content less than 3% **or** loss on ignition of less than 5% of the dry weight of the ash.
- 2.3.6 Waste shall not be charged, or shall cease to be charged, into the incinerator if the combustion chamber temperature is below, or falls below 850°C.

2.3.7 Waste shall not be charged, or shall cease to be charged, into the incinerator if any continuous emission limit value in table 6.1.3 is exceeded, other than under abnormal operating conditions;

Abnormal Operating Conditions

2.3.8 In the case of breakdown, the Operator shall reduce or close down operations as soon as practicable until normal operations can be restored.

2.3.9 Without prejudice to Condition 2.3.7 the incineration plant shall under no circumstances charge or continue to incinerate waste:

- a) for a period of more than four hours uninterrupted where emission limit values set in Table 6.1.3 (excluding abnormal operating conditions specified in condition 2.3.10) are exceeded; or
- b) continuous emission monitor(s) is(are) out of service for four hours; or
- c) where the cumulative duration of abnormal operation periods as specified in 2.3.9(a) and 2.3.9(b) above is or exceeds 60 hours, both to be calculated over one calendar year.

2.3.10 During a period of abnormal operation, the Operator shall carry out monitoring of the parameters listed in Table 2.3.10, and the limits for emissions to air for the parameters and emission points set out in Table 2.3.10 shall not be exceeded.

Table 2.3.10 : Emission limits to air and monitoring during abnormal operating conditions

Emission point reference	Parameter	Limit	Monitoring frequency	Monitoring method [1]
A1, A2, A3	Particulate matter	150 mg/m ³ ½-hr average	Continuous measurement	BS EN 14181
A1, A2, A3	Total Organic Carbon (TOC)	20 mg/m ³ ½-hr average	Continuous measurement	
A1, A2, A3	Carbon monoxide	150 mg/m ³ 95% of all 10-minute averages in any 24-hour period	Continuous measurement	

Note [1]: The certification range for MCERTS equipment should be not more than 1.5 times the daily emission limit value. The CEM shall also be able to measure instantaneous values over the ranges that are to be expected during all operating conditions. If it is necessary to use more than one range setting of the CEM to achieve this requirement, the CEM shall be verified for monitoring supplementary, higher ranges.

2.3.11 The bag filter bypass use shall be minimised and only used when waste is not present in the furnace. Total loss of power shall not cause the bypass to open.

2.3.12 Any operation of the furnace pressure relief valve shall be reported to the Agency in the Schedule 1 release format attached to this permit.

2.3.13 The operator shall have at least one auxiliary burner in each line at start up or shut down or whenever the operating temperature falls below that specified in condition 2.3.6, as long as incompletely burned waste is present in the combustion chamber. Unless the temperature specified in condition 2.3.6 is maintained in the combustion chamber, such burner(s) may be fed only with fuels which result in emissions no higher than those arising from the use of gas oil, liquefied gas or natural gas.

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 question B2.4 given in the Application (Chapter 2 page 50)	30.01.02

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 the Application. (Chapter 2 pages 50-51)	30.01.02

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
Reject loads and oversize	L1	Segregated area. Loose and liquid loads in containers	Impermeable hard standing within tipping hall
Waste oil	L2	Drums	Drums to be clearly marked, held on concrete hard standing with controlled drainage within building.
Flue Gas treatment residue	L3	Silos vented through self cleaning filter	Outside building in dedicated area
Boiler Ash mixed with ESP ash.	L4	Silos vented through self cleaning filter	Outside building in dedicated area
Bed ash after segregation of reusable bed material	L5	Within building	Inside building in dedicated area
Metals for recycling	L6	Suitable receptacle	Outside building in dedicated area
Plastics for recycling	L7	Suitable receptacle	Outside building in bales in dedicated area
Paper and Cardboard for recycling	L8	Suitable receptacle	Inside building in bales in dedicated area
Other wastes	-	Drums or bins	Inside building in dedicated area

2.5.3 Dust control measures shall be installed and used for ash storage if necessary.

2.5.4 Flue gas treatment residues shall not be mixed with the bed ash. Mixing the Flue gas Treatment Residues with any other ash residues from the boiler and/or the electrostatic precipitator shall only be permitted on site provided that the total mixed residues are then treated as Flue Gas Treatment residues and disposed of as Flue Gas Treatment residues.

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 the Application. (Chapter 2 page 52)	30.01.02

2.6.2 Wastes produced at the Installation shall, as a minimum, be sampled and analysed in accordance with Table 2.6.2. Additional samples shall be taken and tested and appropriate action taken, whenever:

- a) disposal or recovery routes change; and
- b) it is suspected that the nature or composition of the waste has changed such that the route selected may no longer be appropriate.

Table 2.6.2: Waste Sample and Analysis		
Waste Description	Parameter to be measured	Frequency
Bottom Ash	TOC or LOI, Metals (Cd, Tl, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Sb, Zn) and their compounds and the total soluble fraction of these metals, dioxins/ furans and dioxin like PCB's. Sampling and analysis as per Agency ash sampling protocol.	Quarterly (with the exception of the total soluble fraction which shall be sampled and analysed before the use of a new disposal or recycling route).
Boiler and ESP Ash combined	TOC or LOI, Metals (Cd, Tl, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Sb, Zn) and their compounds and the total soluble fraction of these metals, dioxins/ furans and dioxin like PCB's. Sampling and analysis as per Agency ash sampling protocol.	Quarterly (with the exception of the total soluble fraction which shall be sampled and analysed before the use of a new disposal or recycling route).
Flue gas treatment residues	TOC or LOI, Metals (Cd, Tl, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Sb, Zn) and their compounds and the total soluble fraction of these metals, dioxins/ furans and dioxin like PCB's. Sampling and analysis as per Agency ash sampling protocol.	Quarterly (with the exception of the total soluble fraction which shall be sampled and analysed before the use of a new disposal or recycling route).

2.6.3 Copies of the analyses in condition 2.6.2 above shall be forwarded to the Agency in accordance with Table S2, Schedule 2.

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 the Application	30.01.02
Response to Schedule 4 Notice Dated 18.04.02	Response to question 8	05.2002

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 the Application	30.01.02
Response to Schedule 4 Notice Dated 18.04.02	Response to question 9	05.2002

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 the Application	30.01.02

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 the Application	30.01.02

- 2.10.2 Where requested in writing by the Agency, the Operator shall provide at least 14 days advance notice of undertaking periodic measurements.
- 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 Measurements for the determination of concentrations of substances specified in this permit shall be carried out representatively.
- 2.10.5 Sampling ports shall comply with the requirements of BS EN 13284-1.
- 2.10.6 The operator shall make available on the Internet continuous monitoring data within 31 working days of the end of the month in question.
- 2.10.7 The following operating parameters shall be continuously monitored and recorded:
- the temperature near the inner wall of the combustion chamber (or other representative location agreed in writing with the Agency);
 - the exhaust gas oxygen concentration;
 - the exhaust gas temperature;
 - the exhaust gas pressure; and
 - if the gases are not dried prior to analysis, the exhaust gas water vapour content.
- 2.10.8 Methods 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 agreed in writing with the Agency, shall apply. The reference measurements used shall be agreed in writing with the Agency. The results of the assessment shall be submitted, to the Agency in writing, within one month of the completion of the assessment.
- 2.10.9 Analysis of the samples for substances specified in this permit shall be carried at a UKAS certified laboratory, to limits of detection specified, or as otherwise agreed in writing, by the 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 the Application	30.01.02

2.11.2 The Operator shall provide, for approval by the Agency, details of any changes that may be made to the site closure plan over the lifetime of the installation to ensure that it still complies with BAT at the time of the closure.

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 CEM data before and after subtraction of the uncertainty errors;
 - d raw data for all congeners of dioxins/furans and dioxin like PCBs; and
 - e any other Specified Records for the Installation as stipulated from time to time by the Agency.
- 3.1.2 There shall be made available for inspection by the Agency at any reasonable time:
- a Specified Records; and
 - 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; and
 - c indicate any amendments which have been made and shall include the original record wherever possible.
- 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 at the location.
- 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. The Operator shall retain such records for a minimum of 4 years.

4 Reporting

- 4.1.1 All reports and notifications required by this Permit 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, with the exception of the monthly reports specified, which shall be submitted in hard copy within 10 working days of the end of the month in question.
- 4.1.3 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 year's progress against such targets.
- 4.1.4 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 H1annex k (Environmental Assessment and Appraisal of BAT) and should justify, against the Best Available Techniques 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.
- 4.1.5 Fugitive emissions shall be reviewed and quantified on an annual basis and, not later than 31st January in each year, a summary report on this review shall be sent to the Agency detailing such releases and the measures taken to prevent and reduce them.
- 4.1.6 By 31 January each year the Operator shall submit to the Agency an annual report on quantities of ash, their destinations and their components/compositions, which have been disposed of or recycled in the previous calendar year. The report shall review (with regard to BAT) opportunities for increasing waste recovery over the coming year, and report on progress with those identified in the previous years report.

- 4.1.7 By 31 January each year the Operator shall submit to the Agency an annual report on the energy consumption and energy production of the Installation.
- 4.1.8 The report required by Condition 4.1.7 shall include the following:
- a) A review (with regard to BAT) of opportunities for increasing the overall energy efficiency of the Installation over the coming year;
 - b) Identify progress with those opportunities identified in the previous annual report; and
 - c) Identify the net usable energy produced per tonne of waste processed (i.e. energy consumption of the Installation and unused energy discharged from cooling operations to be deducted).
- 4.1.9 By 31 January (or other date agreed in writing by the Environment Agency) each year the Operator shall submit a report to the Environment Agency. The report shall include the functioning and monitoring of the incineration plant in a format agreed with the Environment Agency. The report shall, as a minimum requirement (as required by Chapter IV of the Industrial Emissions Directive) give an account of the running of the process and the emissions into air and water compared with the emission standards in the IED.

5 Notifications

- 5.1.1 (a) In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
- (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) in the event of a breach of any permit condition the operator must immediately—
- (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 5.1.2 Any information provided under condition 5.1.1 (a)(i), or 5.1.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 1 to this permit within the time period specified in that schedule.
- 5.1.3 The Operator shall give written notification as soon as practicable prior to any of the following:-
- 5.1.3.1 permanent cessation of the operation of part or all of the Permitted Installation;
 - 5.1.3.2 cessation of operation of part or all of the Permitted Installation for a period likely to exceed 1 year; and
 - 5.1.3.3 resumption of the operation of part or all of the Permitted Installation after a cessation notified under condition 5.1.3.2.
- 5.1.4 The Operator shall notify the Agency, as soon as reasonably practicable, of any information concerning the state of the site, which adds to that, provided to the Agency as part of the Application or to that in the Site Protection and Monitoring Programme
- 5.1.5 The Operator shall notify the following matters to the Agency in writing within 14 days of their occurrence:-
- 5.1.5.1 where the Operator is a registered company:-
 - any change in the Operator's trading name, registered name or registered office address;
 - any change to particulars of the Operator's ultimate holding company (including details of an ultimate holding company where an Operator has become a subsidiary)
 - any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement

- or being wound up;
- 5.1.5.2 where the Operator is a corporate body other than a registered company:
- any change in the Operator's name or address;
 - any steps taken with a view to the dissolution of the Operator.
- 5.1.5.3 In any other case: -
- the death of any of the named Operators (where the Operator consists of more than one named individual);
 - any change in the Operator's name(s) or address(es);
 - any steps taken with a view to the Operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case them being in a partnership, dissolving the partnership;
- 5.1.6 Where the Operator has entered into a Climate Change Agreement with the Government, the Operator shall notify the Agency within one month of:-
- 5.1.6.1 a decision by the Secretary of State not to re-certify that Agreement.
- 5.1.6.2 a decision by either the Operator or the Secretary of State to terminate that agreement.
- 5.1.6.3 any subsequent decision by the Secretary of State to re-certify such an Agreement.
- 5.1.7 Where the Operator has entered into a Direct Participant Agreement in the Emissions Trading Scheme which covers emissions relating to the energy consumption of the activities, the Operator shall notify the Agency within one month of:-
- 5.1.7.1 a decision by the Operator to withdraw from or the Secretary of State to terminate that agreement.
- 5.1.7.2 a failure to comply with an annual target under that Agreement at the end of the trading compliance period.

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.

Emission point reference	Source	Location of emission point
A1	Incinerator line 1 (80 m flue in common chimney)	Chimney as marked on Site Plan
A2	Incinerator line 2 (80 m flue in common chimney)	Chimney as marked on Site Plan
A3	Incinerator line 3 (80 m flue in common chimney)	Chimney as marked on Site Plan

6.1.2 The limits for emissions into air for the parameter(s) and emission point(s) set out in Table 6.1.3 shall not be exceeded except under abnormal operating conditions.

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

Emission point reference	Parameter	Limit (including Reference Period)	Monitoring frequency	Monitoring method [1]
A1, A2, A3	Particulate matter	30 mg/m ³ ½-hr average	Continuous measurement	BS EN 14181
		10 mg/m ³ Daily average	Continuous measurement	BS EN 14181
		20 mg/m ³ Periodic over minimum 1-hour period	Bi-annual	BS EN 13284-1
A1, A2, A3	Total Organic Carbon (TOC)	10 mg/m ³ 97% of all ½-hr averages in a rolling year ^[note3]	Continuous measurement	BS EN 14181
		10 mg/m ³ Daily average	Continuous measurement	BS EN 14181
		20 mg/m ³ Periodic over minimum 1-hour period	Bi-annual	BS EN 12619
A1, A2, A3	Hydrogen chloride	60 mg/m ³ ½-hr average	Continuous measurement	BS EN 14181
		10 mg/m ³ Daily average	Continuous measurement	BS EN 14181

Table 6.1.3 : Emission limits to air and monitoring during normal operation

Emission point reference	Parameter	Limit (including Reference Period)	Monitoring frequency	Monitoring method [1]
		30 mg/m ³ Periodic over minimum 1-hour period	Bi-annual	BS EN 1911
A1, A2, A3	Hydrogen fluoride	1 mg/m ³ Periodic over minimum 1-hour period	Bi-annual	BS ISO 15713
A1, A2, A3	Carbon monoxide	150 mg/m ³ 95% of all 10-minute averages in any 24-hour period ^[note 4]	Continuous measurement	BS EN 14181
		50 mg/m ³ Daily average	Continuous measurement	BS EN 14181
		150 mg/m ³ Periodic 95% of all 10-minute averages over minimum 4 hour period, data to be reported as 10-minute averages ^[note 4]	Bi-annual	BS EN 15058
A1, A2, A3	Sulphur dioxide	200 mg/m ³ ½-hr average	Continuous measurement	BS EN 14181
		50 mg/m ³ Daily average	Continuous measurement	BS EN 14181
		200 mg/m ³ Periodic over minimum 4 hour period, data to be reported as ½ hour averages	Bi-annual	BS EN 14791
A1, A2, A3	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	400 mg/m ³ ½-hr average	Continuous measurement	BS EN 14181
		200 mg/m ³ Daily average	Continuous measurement	BS EN 14181
		400 mg/m ³ Periodic over minimum 4 hour period, data to be reported as ½ hour averages	Bi-annual	BS EN 14792
A1, A2, A3	Nitrous Oxide (N ₂ O)	No limit Set	Bi-annual	BS EN ISO 21258
A1, A2, A3	Ammonia (NH ₃)	20 mg/m ³ ½-hr average	Continuous measurement	BS EN 14181
		10 mg/m ³ Daily average	Continuous measurement	BS EN 14181
		20 mg/m ³	Bi-annual	BS EN 14791

Table 6.1.3 : Emission limits to air and monitoring during normal operation

Emission point reference	Parameter	Limit (including Reference Period)	Monitoring frequency	Monitoring method [1]
A1, A2, A3	Cadmium & thallium and their compounds (total) [2]	0.05 mg/m ³ Periodic over period between 30 minutes and 8 hour	Bi-annual	BS EN 14385
A1, A2, A3	Mercury and its compounds [2]	0.05 mg/m ³ Periodic over period between 30 minutes and 8 hour	Bi-annual	BS EN 13211
A1, A2, A3	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total) [2]	0.5 mg/m ³ Periodic over period between 30 minutes and 8 hour	Bi-annual	BS EN 14385
A1, A2, A3	Dioxin-like PCBs (WHO-TEQ Humans / Mammals) <hr/> Dioxin-like PCBs (WHO-TEQ Fish) <hr/> Dioxin-like PCBs (WHO-TEQ Birds)	No Limit set Periodic over period between 6 and 8 hours	Bi-annual.	BS EN 1948-4
A1, A2, A3	Specific individual poly-cyclic aromatic hydrocarbons (PAHs)	No Limit set Periodic over period between 6 and 8 hours	Bi-annual	BS ISO 11338-1,2
A1, A2, A3	Dioxins / furans (WHO-TEQ Humans / Mammals) <hr/> Dioxins / furans (WHO-TEQ Fish) <hr/> Dioxins / furans (WHO-TEQ Birds)	No limit set Periodic over period between 6 and 8 hours	Bi-annual	BS EN 1948-1,2,3
A1, A2, A3	Dioxins / furans (I-TEQ)	0.1 ng/m ³ Periodic over period between 6 and 8 hours	Bi-annual	BS EN 1948-1,2,3

Note [1]: The certification range for MCERTS equipment should be not more than 1.5 times the daily emission limit value. The CEM shall also be able to measure instantaneous values over the ranges that are to be expected during all operating conditions. If it is necessary to use more than one range setting of the CEM to achieve this requirement, the CEM shall be verified for monitoring supplementary, higher ranges.

Note [2]: Metals include gaseous, vapour and solid phases as well as their compounds (expressed as the metal or the sum of the metals as specified). Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V mean antimony, arsenic, lead, chromium, cobalt, copper, manganese, nickel and vanadium respectively.

Note [3]: Rolling year begins from 1 November 2013, and the 97% of ½ hour averages figure will be calculated from the effective operating time, which does not include periods of start-up, shut-down or abnormal operation.

Note [4]: The 95% of 10 minute averages figure will be calculated from the effective operating time, which does not include periods of start-up, shut-down or abnormal operation. Any 24 hour period is to be calculated from midnight to midnight.

6.1.4 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in Table 6.1.3; the Continuous Emission Monitors shall be used such that;

a) the values of the 95% confidence intervals of a single measured result at the daily emission limit value shall not exceed the following percentages:

- Carbon monoxide 10%
- Sulphur dioxide 20%
- Oxides of nitrogen (NO & NO₂ expressed as NO₂) 20%
- Particulate matter 30%
- Total organic carbon (TOC) 30%
- Hydrogen chloride 40%

b) valid half-hourly average values or 10-minute averages shall be determined within the effective operating time (excluding the start-up and shut-down periods if no waste is being incinerated) from the measured values after having subtracted the value of the confidence intervals in condition 6.1.4 (a);

c) where it is necessary to calibrate or maintain the monitor and this means that data are not available for a complete half-hour period, the half-hourly average or 10-minute average shall in any case be considered valid if measurements are available for a minimum of 20 minutes or 7 minutes during the half-hour or 10-minute period respectively. The number of half-hourly or 10-minute averages so validated shall not exceed 5 or 15 respectively per day;

d) daily average values shall be determined as the average of all the valid half-hourly average or 10-minute average values within a calendar day. The daily average value shall be considered valid if no more than five half-hourly average or 15 10-minute average values in any day have been determined not to be valid;

e) no more than ten daily average values per year shall be determined not to be valid.

6.1.5 No condition applies

6.1.6 No condition applies

6.1.7 For periodic measurements, compliance shall be determined from the measured value after having subtracted the uncertainty error for the selected method of sampling and analysis for each relevant pollutant.

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.

6.2.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

6.3 **Emissions to water [other than emissions to sewer]**

6.3.1 No emissions to water shall be made from any part of the installation.

6.4 **Emissions to sewer**

6.4.1 Emissions to sewer from the emission point specified in Table 6.4.1 shall only arise from the source(s) specified in that Table.

Table 6.4.1: Emission points into water		
Emission Point Reference.	Source	Receiving Sewer
S1	Uncontaminated surface rainwater from roadways and car parks	Southern Water (via interceptors and local surface water drainage system)

6.4.2 The Operator shall comply fully with the conditions of the Trade Effluent Consent to be issued by Southern Water for this installation and shall carry out monitoring of the parameters for the parameters listed in the Trade Effluent Consent and at least at the frequencies specified.

6.4.3 There shall be no emission into sewer from the Permitted Installation of any substance prescribed for water for which no limit is specified in the Trade Effluent Consent except in a concentration which is no greater than the background concentration

6.5 **Emissions of heat**

6.5.1 The Operator shall take every practical opportunity to use the heat rejected at the steam condensers for beneficial local use. A report shall be submitted to the Environment Agency bi-annually on the Anniversary of the issue of the Permit on the Operator's progress in investigating and developing opportunities for the use of the rejected heat.

6.6 **Emissions of noise and vibration**

6.6.1 No conditions are placed on noise and vibration from the installation.

6.7 **Emissions of odour**

6.7.1 Emissions from the activities shall be free from odour at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures, to prevent or where that is not practicable to minimise the odour.

7 Transfer to effluent treatment plant

- 7.1.1 No transfer from the Permitted Installation shall be made to any on site effluent treatment plant.

8 Off site conditions

- 8.1.1 The Operator shall, subject to the conditions of this permit, undertake an off site monitoring programme for ambient air quality, soil contamination and noise as specified in Table 8.1.1, or as otherwise agreed in writing by the Agency. A report shall be submitted in writing to the Agency to demonstrate that the results of the monitoring shows that the assessments and predictions made in the Application for these parameters remain valid.

Table 8.1.1 : Off-site Monitoring		
Description	Parts	Date Received
Addition information detailing the off site monitoring programme.	Entire programme	12.11.2002

- 8.1.2 By 31 January each year the Operator shall undertake, and report to the Agency, annual audits of the intended waste disposal and treatment sites for the bottom ash, combined boiler and ESP ash, Flue Gas Treatment Residues and other wastes (solid and liquid). The audits are to ensure that the disposal and treatment sites are appropriately licensed to receive the type and quantity of waste generated by the permitted installation. The audit shall also ensure that the recovery sites for ferrous and non-ferrous metals are appropriately licensed to recover the type and quantity of waste generated.

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 a report, including 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
9.1	A written protocol for representative sampling and analysis for the determination of total organic carbon or loss-on-ignition, composition and leachability of the bed, boiler and flue gas treatment ash shall be submitted to the Agency for approval.	Completed.
9.2	The Operator shall submit a post commissioning report. The report shall include, but not be limited to: <ul style="list-style-type: none"> • Comparison of process performance against all permit conditions. • Details of the injection of the reagent for the reduction of oxides of nitrogen (including rate(s), control philosophy and nozzle height(s)) to maximise the efficiency and avoid over dosing reagent to minimise the creation of nitrous oxide and ammonia slip. • the results of the commissioning trials (of the SNCR system) and a justification made for the operational reduction limit selected having regard to BAT for the process and what further reductions can be achieved by equipment or process modifications. • Details of the procedures developed during commissioning for demonstrating control of the process. • Details of the location of the temperature sensors in the furnace in order to have the best control of the combustion conditions. • Details of the optimisation of reagent injection to minimise acid gases, dioxins, furans and heavy metals emissions to air. • Details of the automatic triggering of auxillary burners and of the operation of the waste feed lockout when the furnace temperature is less than 850 °C. 	Completed
9.3	The Operator shall carry out checks to verify the residence time, minimum temperature and oxygen content of the exhaust gases whilst operating under the anticipated most unfavourable operating conditions. The results shall be submitted to the Agency.	Completed
9.4	The Operator shall carry out tests to demonstrate that hydrogen chloride may be considered to be a surrogate of hydrogen fluoride for the purposes of condition 6.1.2 of this Permit. The results shall be submitted to the Agency.	Completed
9.5	The Operator shall submit a proposal to the Agency to carry out tests to determine the size distribution of the particulate matter in the exhaust gas emissions to air from emission A1, identifying the fractions within the PM ₁₀ , and PM _{2.5} ranges. The proposal shall include a timetable to carry out such tests and produce a report on the results.	3 months from issue of this variation.

Table 9.1.1: Improvement programme requirements		
Reference	Requirement	Date
9.6	On receipt of written agreement by the Agency to the proposal and the timetable submitted for 9.5, the Operator shall carry out the tests and submit to the Agency a report on the results.	Completed
9.7	The Operator shall calibrate and verify the performance of Continuous Emission Monitors for release points and parameters as specified in Table 6.1.3 (of BR4551) to BS EN 14181 and submit a summary report to the Environment Agency as evidence of compliance with the requirements of BS EN 14181.	Completed
9.8	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.	Completed
9.9	The Operator shall commission and report an air quality assessment to confirm the results of the air dispersion modelling to a specification agreed in writing with the Agency	Completed
9.10	The Operator shall review the techniques for continuous measurements for heavy metals, dioxins/furans and dioxin like PCBs, including cost, availability, accuracy, detection limits and submit a written report to the Agency	Completed
9.11	The Operator shall carry out tests to determine the profile of polycyclic aromatic hydrocarbons (“PAHs”) and their concentrations in the exhaust gas emissions. The results shall be submitted in writing to the Agency.	Completed
9.12	The Operator shall compile and maintain a full set of “as built” Piping and Instrumentation Diagrams for the Installation. The P & ID diagrams shall be made available to the Agency upon request.	Completed
9.13	The Operator shall submit a written report to the Agency reviewing the options for improving the airflow and reducing the risk of fugitive emissions, including odour, from the incinerator building. The report shall detail the techniques used for evaluating the effectiveness of the airflow system, any changes that are required to the fabric of the building and the fitness for purpose of written operating instructions that may currently be in place. It shall also identify the measures used to increase the extraction of air from areas where waste is being stored/ processed. The report shall include the provision of installed instrumentation and control systems and the use of alarms to monitor the effectiveness of the system. The report shall include a timetable for the implementation of any recommendations and subject to the Agency’s agreement the Operator shall implement these recommendations in accordance with this timetable.	Completed
9.14	The operator shall submit an odour management plan for dealing with planned and unplanned shut downs of the incinerator or following the detection of an odour associated with the plant beyond the boundary of the site that shall detail the actions that will be taken to reduce the risk of fugitive odour emissions from the site. On submission of this report and agreement with the Agency the actions specified in the report shall be adhered to unless otherwise agreed in writing.	Completed
9.15	The operator shall submit a written report to the Environment Agency confirming the completion of the modifications to the primary air system and providing an assessment of the	30/9/14

Table 9.1.1: Improvement programme requirements		
Reference	Requirement	Date
	efficacy of the improvement with regards to a reduction in TOC emissions from the stacks.	
9.16	The operator shall submit a written report to the Environment Agency providing evidence on how long it takes to fully burn out waste in the furnace, once the feed of waste has stopped.	31/08/2014
9.17	The operator shall submit a written report to the Environment Agency providing details of the number and duration of start-ups and shut-downs for the preceding 6 month period. This review shall also assess the environmental impact of start-up and shut-downs periods and identify any improvements that may be required to reduce this impact.	30/09/2014

10 Interpretation

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

“Abnormal operation”

means any technically unavoidable stoppages, disturbances, or failures of the abatement plant or the measurement devices [other than continuous emission monitors for releases to air of particulates, TOC and/or CO], during which the concentration in the discharges into air and the purified waste water of the regulated substances may exceed the normal emission limit values.

“Annual release”

means the total release during a calendar year commencing 1 January;

“Background concentration”

means the same as “background quantity” as defined in paragraph 11 to Part 2 to Schedule 1 of the PPC Regulations;

“Bi-annual”

means twice per year with at least five months between tests;

“Bottom ash”

ash which has been extracted from the fluidised bed and which has had reusable bed material removed;

“Boiler ash”

ash which has been extracted from the boiler

“CEM”

means continuous emission monitor;

“CEN”

means Comité Européen de Normalisation;

“Commissioning”

relates to the period after construction has been completed when the Permitted Installation process is being made ready to operate;

“Controlled waters”

shall have the same meaning as in Part II of the Water Resources Act 1991;

“COT”

means Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment.

“Dioxins and Furans”

means polychlorinated dibenzo-para-dioxins and polychlorinated dibenzofurans;

“*ELV*”

means emission limit value;

“*EP Regulations*”

means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“*ESP ash*”

means ash that has been extracted from the electrostatic precipitator,

“*FGTR*”

means Flue Gas Treatment Residues extracted from the bag filter house

“*Fugitive emission*”

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

“*Hot commissioning*”

means the direct application of heat into the furnace, for any purpose, via the combustion of a fuel or waste;

“*ISO*”

means International Standards Organisation;

“*I-TEF*”

means international toxic equivalency factors;

“*I-TEQ*”

means international toxic equivalent concentration;

“*L_{Aeq,T}*”

means the A-weighted equivalent continuous equal energy noise level (dB(A)) over the time period T;

“*LOI*”

means Loss on Ignition

“*Monitoring*”

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

“*mgm⁻³*”

means milligrammes per cubic metre;

“ngm⁻³”

means nanogrammes per cubic metre;

“PCB”

means polychlorinated biphenyls;

“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;

“Quarterly”

means four times per year with at least two months and no more than four months between tests;

“Release point”

followed by the letter A, W, E or S means respectively a point shown on a map or plan forming part of the Application for the release from the Permitted Installation into the air, into controlled waters, into an on-site effluent treatment plant or into a sewer;

“Reporting Address”

means the address, from time to time notified to the Operator, for that purpose by the Environment Agency in writing;

“shut down”

is any period where there is no waste being fed, and the auxiliary burners are not required because all waste within the combustion chamber has been completely burnt out, and the half-hourly average oxygen concentration, measured at the stack (on a volumetric basis in wet flue gas) is above 16% for two successive half-hour periods, or otherwise agreed in writing with the Environment Agency.

“Staff”

includes employees, directors or other officers of the Operator, and any other person under the Operator’s direct or indirect control, including contractors;

“start up”

is any period, where the plant has been shut-down, as defined in the Permit, until waste is being fed to the plant, the auxiliary burners have been switched off and the half hourly average oxygen concentration measured at the stack (on a volumetric basis in wet flue gas) is below 14% for two successive half hour periods or otherwise agreed in writing with the Environment Agency

“Substances prescribed for water”

means those substances mentioned in paragraph 13 of Part 2 of Schedule 1 to the PPC Regulations;

“TEF”

means toxic equivalency factors;

“TEQ”

means toxic equivalent concentration;

“TOC”

means total organic carbon;

“UK”

means United Kingdom.

“UKAS”

means United Kingdom Accreditation Service.

“VOC”

means any organic compound in the exhaust gas emissions;

“WHO”

means World Health Organisation; and

“Year”

means calendar year ending 31 December.

- 10.1.2 Where a minimum limit is set for any emission/process 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 in relation to emission limits, the concentration in dry gas at a temperature of 273K, at a pressure of 101.3kPa and with an oxygen concentration of 11%.
- 10.1.4 For dioxins/furans and dioxin like PCBs the determination of the toxic equivalence concentration (I-TEQ & WHO-TEQ for dioxin/furans, UK COT & WHO-TEQ for dioxin like PCBs) stated as a release limit and/or reporting requirement, the mass concentrations of the following congeners have to be multiplied with their respective toxic equivalence factors before summing.

TEF schemes for dioxins and furans				
<i>Congener</i>	<i>I-TEF</i>	<i>WHO-TEF</i>		
	1990	2005	1997/8	
		<i>Humans / Mammals</i>	<i>Fish</i>	<i>Birds</i>
<i>Dioxins</i>				
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	0.5	1	1	1
1,2,3,4,7,8-HxCDD	0.1	0.1	0.5	0.05
1,2,3,6,7,8-HxCDD	0.1	0.1	0.01	0.01
1,2,3,7,8,9-HxCDD	0.1	0.1	0.01	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.001	<0.001
OCDD	0.001	0.0003	-	-
<i>Furans</i>				
2,3,7,8-TCDF	0.1	0.1	0.05	1
1,2,3,7,8-PeCDF	0.05	0.03	0.05	0.1
2,3,4,7,8-PeCDF	0.5	0.3	0.5	1
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8 HpCDF	0.01	0.01	0.01	0.01
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.01
OCDF	0.001	0.0003	0.0001	0.0001

TEF schemes for dioxin-like PCBs			
<i>Congener</i>	<i>WHO-TEF</i>		
	2005	1997/8	
	<i>Humans / mammals</i>	<i>Fish</i>	<i>Birds</i>
<i>Non-ortho PCBs</i>			
3,4,4',5-TCB (81)	0.0001	0.0005	0.1
3,3',4,4'-TCB (77)	0.0003	0.0001	0.05
3,3',4,4',5 - PeCB (126)	0.1	0.005	0.1
3,3',4,4',5,5'-HxCB(169)	0.03	0.00005	0.001
<i>Mono-ortho PCBs</i>			
2,3,3',4,4'-PeCB (105)	0.00003	<0.000005	0.0001
2,3,4,4',5-PeCB (114)	0.00003	<0.000005	0.0001
2,3',4,4',5-PeCB (118)	0.00003	<0.000005	0.00001
2',3,4,4',5-PeCB (123)	0.00003	<0.000005	0.00001
2,3,3',4,4',5-HxCB (156)	0.00003	<0.000005	0.0001
2,3,3',4,4',5'-HxCB (157)	0.00003	<0.000005	0.0001
2,3',4,4',5,5'-HxCB (167)	0.00003	<0.000005	0.00001
2,3,3',4,4',5,5'-HpCB (189)	0.00003	<0.000005	0.00001

10.1.5 The respective TEQ sum of the equivalence factors to be reported as a range based on:

- all congeners less than the detection limit assumed to be zero; and
- all congeners less than the detection limit assumed to be at the detection limit.

11 Written agreement to changes

- 11.1.7 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:
- 11.1.8 the Operator shall give the Agency written notice of the details of the proposed change, indicating the relevant part(s) of this Permit; and
- 11.1.9 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.
- 11.1.10 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 - Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to	

be taken, to stop the emission	
--------------------------------	--

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B - to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 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.

Notes on Table S2:

1. Metals and their compounds (in total) are to be expressed as the metal.
2. One measurement every 6 months but one every 3 months in first 12 months of operation. Reporting to be every 3 months in the first 12 months then every six months afterwards.
3. One measurement every 6 months but one every 3 months in first 12 months of operation. Reporting to be every 3 months in the first 12 months then every six months afterwards. Average value over sample period of between 6 and 8 hours. Determination in accordance with BS EN 1948.

Table S2: Reporting of Monitoring Data.					
Parameter	Emission Point(s)	Frequency	Reporting Period	Reporting Form.	
Total Particulate Matter	A1, A2 and A3.	Continuous	Monthly	PMA1-3.	
		Periodic Note 3 above.	Note 3 above.	EXT A1-3.	
VOCs as Total organic Carbon (TOC)	A1, A2 and A3.	Continuous	Monthly	TOCA1-3.	
		Periodic Note 3 above.	Note 3 above.	EXT A1-3.	
Hydrogen Chloride	A1, A2 and A3.	Continuous	Monthly	HCLA1-3.	
		Periodic Note 3 above.	Note 3 above.	EXT A1-3.	
Carbon Monoxide	A1, A2 and A3.	Continuous	Monthly	COA1-3.	
		Periodic Note 3 above.	Note 3 above.	EXT A1-3.	
Sulphur Dioxide	A1, A2 and A3.	Continuous	Monthly	SOA1-3.	
		Periodic Note 3 above.	Note 3 above.	EXT A1-3.	
Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	A1, A2 and A3.	Continuous	Monthly	NOXA1-3.	
		Periodic Note 3 above.	Note 3 above.	EXT A1-3.	
Ammonia (NH ₃)	A1, A2 and A3.	Continuous	Monthly	NHA1-3.	
		Periodic Note 3 above.	Note 3 above.	EXT A1-3.	
Nitrous oxide (N ₂ O)	A1, A2 and A3.	Periodic. Note 3 above.	Note 3 above.	EXT A1-3.	
Hydrogen Fluoride	A1, A2 and A3.	Periodic Note 3 above.	Note 3 above.	EXT A1-3.	
Cadmium and Thallium and their compounds (total)	A1, A2 and A3.	Periodic Note 3 above.	Note 3 above.	EXT A1-3.	
Mercury and its compounds (total)	A1, A2 and A3.	Periodic Note 3 above.	Note 3 above	EXT A1-3.	
Poly-cyclic aromatic hydrocarbons PAHs	A1, A2 and A3.	Periodic Note 3 above.	Note 3 above	EXT A1-3.	
Sb, As, Pb, Cr, Co, Cu, Mn, Ni, V and their compounds (total).	A1, A2 and A3.	Periodic Note 3 above.	Note 3 above.	EXT A1-3.	
Dioxins and Furans	I-TEQ	A1, A2 and A3.	Note 3 above. Periodic Note 4 above.	Note 4 above.	EXT A1-3.
	WHO-TEQ Humans/mammals				

Table S2: Reporting of Monitoring Data.					
Parameter		Emission Point(s)	Frequency	Reporting Period	Reporting Form.
	WHO TEQ _{Birds}				
	WHO TEQ _{Fish}				
Dioxin Like PCBs.	WHO-TEQ Humans/mammals	A1, A2 and A3.	Periodic Note 4 above.	Note 4 above.	EXT A1-3.
	WHO TEQ _{Fish}				
	WHO TEQ _{Birds}				
TOC or LOI, metals (Cd, Tl, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Sb, Zn) and their compounds <small>Note 2</small> and dioxins/furans and dioxin like PCBs.		Furnace Bottom Ash	Note 3 above.	Every 3 months during the first 12 months of operation and then every 6 months	Ash1.
TOC or LOI, metals (Cd, Tl, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Sb, Zn) and their compounds <small>Note 2</small> and dioxins/furans and dioxin like PCBs.		Boiler Ash and Electrostatic Precipitator Ash.	Note 3 above.	Every 3 months during the first 12 months of operation and then every six months.	Ash1.
TOC or LOI, metals (Cd, Tl, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Sb, Zn) and their compounds <small>Note 2</small> and dioxins/furans and dioxin like PCBs.		Flue Gas Treatment Residue.	Note 3 above.	Every 3 months during the first 12 months of operation and then every six months.	Ash1.
Total soluble fraction and metals (Cd, Tl, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Sb, Zn) soluble fractions		Furnace Bottom Ash	Whenever the disposal or recycling route changes	Before use of a new disposal or recycling route	Ash2
Total soluble fraction and metals (Cd, Tl, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Sb, Zn) soluble fractions		Boiler Ash and Electrostatic Precipitator Ash.	Whenever the disposal or recycling route changes	Before use of a new disposal or recycling route	Ash2
Total soluble fraction and metals (Cd, Tl, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Sb, Zn) soluble fractions		Flue Gas Treatment Residue.	Whenever the disposal or recycling route changes	Before use of a new disposal or recycling route	Ash2
Waste throughput (tonnage)		Not a release.	Each delivery.	Annual.	PI1
Bottom ash. (tonnage)		From Incineration Lines 1-3.	Every 3 months during the first 12 months of operation and then every six months.	Annual.	PI1
Combined boiler and ESP ash (tonnage)		From incineration lines 1-3.	Every 3 months during the first 12 months of operation and then every six months.	Annual.	PI1
Flue Gas Treatment Residues (tonnage).		From Incineration Lines 1-3.	Every 3 months during the first 12 months of operation and then every six months.	Annual.	PI1
Waste Disposal and recovery		From site	Annually	1 January	R1
Water usage		From site	Annually	1 January	WU1

Table S2: Reporting of Monitoring Data.

Parameter	Emission Point(s)	Frequency	Reporting Period	Reporting Form.
Energy usage	From site	Annually	1 January	E1

Schedule 3 - Forms to be used

Table S3: Reporting Forms		
Media or parameter	Form Number	Date of Form
Air	PMA1-3, HCLA1-3, NHA1-3, SOA1-3, NOXA1-3	12.01.2006
	TOCA1-3	14.05.2014
	EXTA1-3, COA1-3	18.04.2013
Energy	E1	20.03.2007
Water usage	WU1	20.03.2007
Waste Return	R1	20.03.2007
LOI, %C and metals in bottom ash and APC residues	Ash 1	20.03.2007
Ash solubility	Ash 2	20.03.2007
Performance indicators	PI1	20.03.2007

Or such other forms as may be agreed in writing with the Environment Agency.

END OF PERMIT