



ASiantaeth YR
AMGYLCHEDD
ENVIRONMENT
AGENCY

Permit with introductory note

Pollution Prevention and Control Regulations 2000

**St Merryn Meat Limited
Pengarnddu Industrial
Estate
Dowlais Top
Merthyr Tydfil
CF48 2TA**

Permit number

BK1759

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Introductory note

This introductory note does not form a part of the Permit

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

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

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

Brief description of the installation regulated by this permit

The purpose of the installation is to provide packaged cuts of meat for the retail trade. The carcasses are either produced in the on-site slaughterhouse facility or brought in from other St Merryn sites. In addition to the main meat products, offals, hides and fleeces, are produced as by-products from the process. The slaughterhouse will process cattle and lamb; additionally the meat processing area is able to package pig and poultry products brought in from other sites.

The installation is situated on the Pengarnddu Industrial Estate, Dowlais, Merthyr Tydfil. This is a mixed industrial/retail park area. The main residential area of Dowlais is approx. 1 km from the site.

When the site is fully operational it will employ approximately 1000 people. The main areas of the site will operate continuously manned on a shift basis. The slaughterhouse, however, will operate 10 hours a day 5 days a week, with occasional weekend working as and when demand dictates.

Inedible animal waste products will either be disposed of in the on-site incinerator, or for operational reasons these materials may be disposed of off-site. The incinerator includes a waste heat boiler to produce steam for the installation. Steam is additionally supplied from 2 small gas fired boilers.

Process water from the installation is abstracted from 3 on-site boreholes. Water is purified in a small treatment plant prior to use in the installation.

The major use of process water at the installation is for the cleaning and washing of areas to meet hygiene requirements. Dosing chemicals are mixed with the process water in a ring main system, which serves the process areas.

A majority of the effluent from the installation will be treated in an on-site effluent treatment facility before being discharged to public sewer and further treatment at the Cilfynydd sewage treatment works. Surface water from car parks, roofs etc is discharged via oil interceptors to the Nant Carno.

Slaughterhouse:

This has a design throughput of 300 head of cattle and 2400 head of lamb per day. The area comprises lairage for the receipt of animals from market or farm, two slaughter lines, one for cattle and one for lamb for the slaughter and processing of the animals. Offal, head, hooves, hides are removed, to produce the carcass. Certain items such as cattle heads and spinal cord is designated as specified risk material, this is dyed with indelible ink before being stored for incineration. Carcasses are then stored in chilled storage rooms prior to progressing to the meat processing area. Hides are preserved and stored in an on-site hide store either by using salt or ice.

Incinerator:

The incinerator has a capacity of 990 kg/hour, a weighscale and interlock system prevents this capacity being exceeded. The incinerator is of a stepped hearth design with a secondary combustion chamber to ensure a gas residence time in excess of 2 seconds at a temperature in excess of 850 °C. The incinerator is fired on natural gas using low NO_x design burners. Flue gases from the incinerator are passed through a waste heat boiler, used to generate steam, before being discharged to atmosphere via the main 16m stack. In the event of problems the 16m by-pass stack can be used. Both the main and by-pass stack share a common wind shield.

Wastes for incineration are stored in a purpose built chilled storage room, air from this storage area is used as combustion air for the incinerator.

Ash from the incinerator is removed and stored in sealed skips and allowed to cool before disposal off-site.

Meat Processing:

Carcasses from the slaughter lines or from off-site are deboned, and then cut up to produce various joints and cuts of meat. These are then sealed in various designs of retail packs depending on customer requirements.

The meat processing area is air conditioned at a temperature of between 4 to 8 C for hygiene reasons.

The packaged cuts of meat are then dispatched off-site in refrigerated trailers or vehicles.

Ancillary Services:

Steam is used on site to produce hot water, used for the sterilizing of knives and other equipment used on the site. To supplement the steam from the incinerator waste heat boilers and to provide steam when the incinerator is shut-down there are two small 3.65 MW boilers.

The installation has a number of refrigeration and air-conditioning units on the site. The use of insulated construction materials and self-closing doors on the chilled storage areas helps minimise energy use in this area.

There are no direct or indirect discharges of list 1 or list 2 substances to ground water from the installation.

Other PPC Permits relating to this installation

Permit holder	Permit Number	Date of Issue
None		

Superseded Licenses/Consents/Authorisations relating to this installation

Holder	Reference Number	Date of Issue
St Merryn Meat Ltd (Part B Incinerator Authorisation).	PG5/3(95)1/00	15/12/00

Talking to us

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

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

Confidentiality

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

Variations to the permit

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

Surrender of the permit

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

Transfer of the permit or part of the permit

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

Status Log

Detail	Date	Comment
Application BK1759	Received 22/03/01	
Response to request for information (1)	Request dated 18/05/01	Responses dated 05/06/01
Response to request for information (2)	Request dated 04/06/01	Response dated 05/06/01
Response to request for information (3)	Request dated 06/07/01	Response dated 23/07/01
Permit BK1759	Determined 10/08/01	Permit Issued

End of introductory Note.

Permit

Pollution Prevention and Control
Regulations 2000



ASiantaeth YR
AMGYLCHEDD
ENVIRONMENT
AGENCY

Permit

Permit number

BK1759

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

Whose Registered Office is
St Merryn Food Group
Victoria Business Park
Roche
Cornwall
PL26 8LX

Company registration number 2169077

to operate an Installation at
St Merryn Meat Ltd.
Pengarnddu Industrial Estate
Dowlais Top
Merthyr Tydfil CF48 2TA

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

Signed

D J T Pugh

Authorised to sign on behalf of the Environment Agency

Date

10/08/01

Conditions

1 The permitted installation

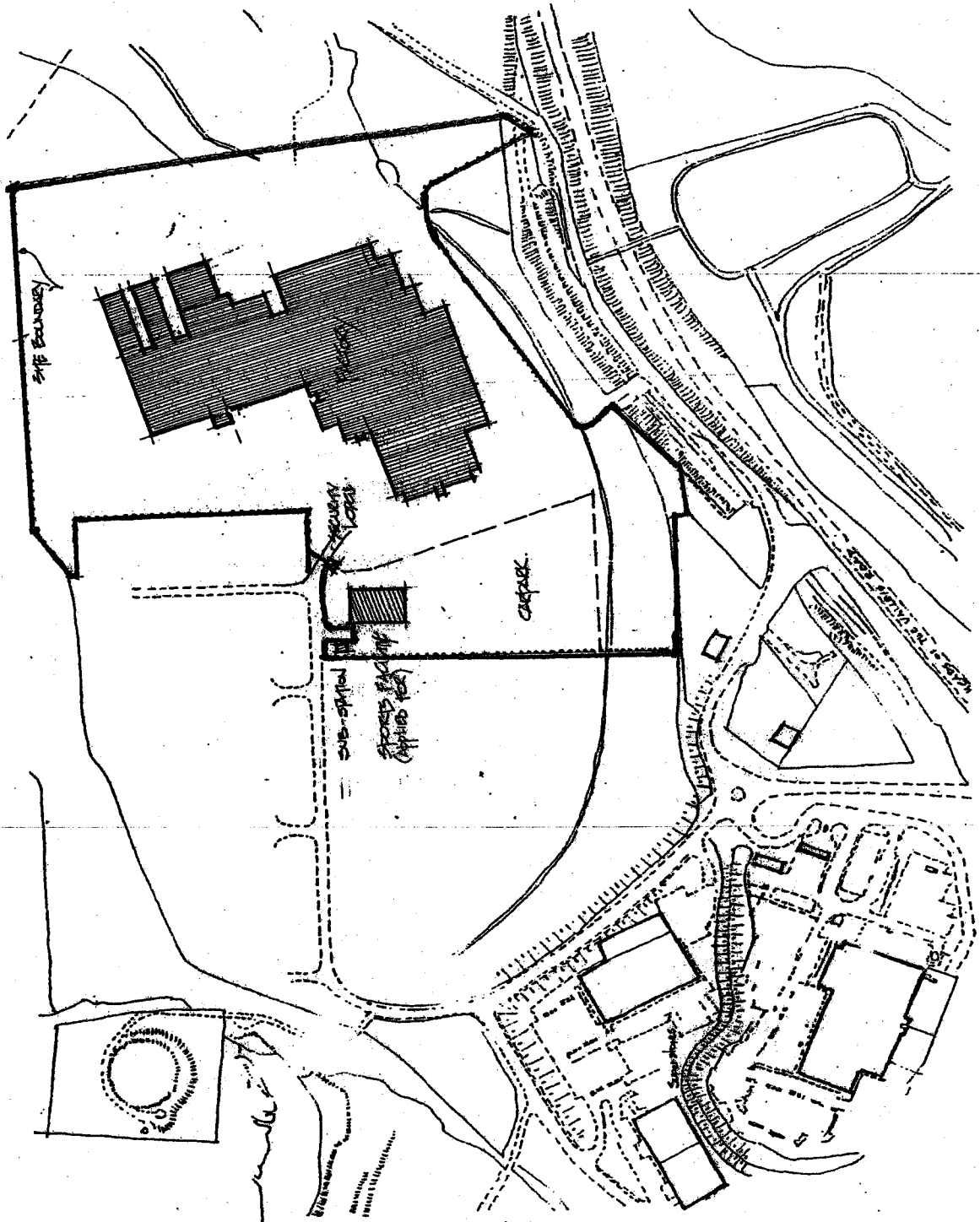
- 1.1.1 The Operator is authorised to carry out the activities and/or the associated activities specified in Table 1.1.1.

Table 1.1.1

Activity under Schedule 1 of the Regulations/ Associated Activity	Description of specified activity	Limits of specified activity
Slaughtering of animals at a plant with a carcass production of more than 50 tonnes per day, Section 6.8 A(1)(b)	Slaughtering of cattle and sheep.	Receipt of live animals to production of animal carcasses.
Incineration of non-hazardous wastes in an incineration plant, other than exempt incineration plant, with a capacity of less than 1 tonne per hour, Section 5.1 B(b).	Incineration of specified risk material and other animal waste products.	Storage of specified risk material and other animal waste products, the incineration process and the storage of incinerator bottom ash.
Meat Processing Area Associated activity that forms part of the "installation" (regulation 2(1))	The processing of the animal carcasses to the production of the final packaged product. The receipt of meat product for processing from other sources and the dispatch of final product into refrigerated road vehicles.	The receipt of meat product for processing from other sources and the dispatch of final product into refrigerated road vehicles.
Cleaning Activities	The use of process water and dosing chemicals for the cleaning of production areas and equipment.	From the water treatment facilities to the site effluent drainage system.
Water discharges to foul sewers	Discharge of process effluent water through the effluent treatment plant to sewer, including the discharge of foul effluent, 'Phase I' effluent and effluent from the clean lorry wash area into the on site pumping pits.	From the on site pumping pits to effluent treatment plant. From the effluent treatment plant to sewer via the on site pumping pits..
Water discharges to controlled waters	Discharge of site drainage from the installation.	From interceptors to point of entry to controlled waters
Treatment of borehole water	Treatment of borehole water to provide process water for the site.	Borehole water treatment process plant and equipment.
Ancillary services	Provision of services required for the operation of the permitted installation.	Boilerhouse, refrigeration and air-conditioning equipment, compressed air services, hot water services, vacuum system, maintenance workshops and other services and operations necessary for the functioning of the Installation.

1.1.2

The activities authorised under condition 1.1.1 shall not extend beyond the Site, being the area outlined 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** Shut off devices have been installed on the outlet of the surface water oil interceptors that discharge into the Nant Carno.
- b** Flow monitoring and sampling equipment has been installed such that the flow and composition of effluent leaving the site via emission point reference S1 (see Table 6.4.1) can be monitored as per the requirements of this Permit.

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 2.1 given in section 3.1 of the application.	22/03/01
Response to Schedule 4 Part1 Notice Response (1)	Response to questions 10 and 11.	06/06/01

- 2.1.2 All plant, equipment and technical means used in operating the Permitted Installation shall be maintained in good operating condition.
- 2.1.3 The Permitted Installation shall be supervised by staff who are suitably trained and fully conversant with the requirements of this Permit.
- 2.1.4 A copy of this Permit and those parts of the application referred to in this Permit shall be available, at all times, for reference by all staff carrying out work subject to the requirements of the Permit.
- 2.1.5 All staff shall be fully conversant with those aspects of the Permit conditions, which are relevant to their duties and shall be provided with appropriate training and written operating instructions to enable them to carry out their duties.

2.2 Raw materials (including water)

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

Table 2.2.1 : Raw materials (including water)

Description	Parts	Date Received
Application	The response to question 2.2 given in section 3.2 of the application.	22/03/01

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 questions 2.3 given in section 3.3 of the application.	22/03/01
Response to Schedule 4 Part1 Notice Response (1)	Response to questions 2, 3, 5, 6, 12, 16 and 31.	06/06/01

2.4 **Groundwater protection**

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

Table 2.4.1: Groundwater protection

Description	Parts	Date Received
Application	The response to questions 2.4 given in section 3.4 of the application.	22/03/01
Response to Schedule 4 Part1 Notice Response (1)	Response to questions 10 and 14.	06/06/01

- 2.4.2 Groundwater abstracted under Environment Agency Abstraction Licence Serial Number 21/57/22/40 from points A, B and C shall be sampled and analysed on a monthly basis for Dissolved Organic Carbon and Diesel Range Organics for a period of 12 months from the date of issue of the Permit and thereafter on a quarterly basis or at a frequency agreed in writing with the Agency. The results of these analyses together with an interpretation and assessment shall be sent to the Agency at the reporting address on an annual basis.

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 2.5. given in section 3.5 of the application.	22/03/01
Response to Schedule 4 Part1 Notice Response (1)	Response to question 1	06/06/01

2.5.2

Waste materials specified in Table 2.5.2 shall only be stored on the site in the location and manner specified in that Table. (Refer to Site Layout reference 95022/16 supplied as response to question 1 of Schedule 4 Part1 Notice dated 04/06/01 (2)).

Table 2.5.2: Waste stored on site

Description of Waste	Location of Storage on Site	Manner of Storage	Storage Conditions
SRM	SRM room Location reference AB4	Closed storage bin	Separate room within main building
By-products intended for incineration	Location reference AB6	Closed storage bin	Temperature of the storage area not to exceed 4 C. Access to the storage area to be via self-closing doors.
Incinerator bottom ash	Location references IF and LS4	Closed skip	-
Solid waste and straw from cattle lairage area	Location reference LS3	Segregated area	Concrete hard standing area. Liquid run-off to effluent or dedicated drainage system.
Blood	Lamb Undercroft area	Bunded tanks	Tanks to be vented to atmosphere via charcoal filter. Road tankers to be back vented to blood storage tanks when being filled.

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 2.6 given in section 3.6 of the application (excluding the landfilling of animal by-product materials as described in SI. 1999 No. 646 - 'The Animal By-Products Order 1999')	22/03/01
Response to Schedule 4 Part1 Notice Response (1)	Response to question 4 (excluding the landfilling of animal by-product materials as described in SI. 1999 No. 646 - 'The Animal By-Products Order 1999')	06/06/01

- 2.6.2 Only waste materials produced within the permitted installation, as listed in clauses a and b below, may be disposed of in the on-site incinerator;
- a** animal tissue, including SRM, meat, offal, bones and blood.
 - b** animal excreta and natural (non-synthetic) bedding, provided these are co-incinerated with materials detailed in condition a above.

- 2.6.3 The following listed wastes shall not be disposed of in the on-site incinerator;
- a** materials, comprising of plastics or polymers.

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 2.7 given in section 3.7 of the application.	22/03/01

- 2.7.2 The Operator shall have an energy management plan, which shall be updated annually.

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 2.8 given in section 3.8 of the application.	22/03/01
Response to Schedule 4 Part1 Notice Response (1)	Response to questions 17 and 18	06/06/01
Response to Schedule 4 Part1 Notice Response (3)	Response to question 3	23/07/01

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 2.9 given in section 3.9 of the application.	22/03/01
Response to Schedule 4 Part1 Notice Response (1)	Response to question 20	11/06/01

- 2.9.2 No vehicles shall be left with idling engines for an extended period of time (excepting motors on refrigerated trailers). Refrigerated trailers in the trailer park area shall use electrical hook-ups where available and the capacity exists.
- 2.9.3 All doors leading to internal production areas, plant rooms and stock handling areas shall be kept closed when not in use.
- 2.9.4 All items of refrigeration, air-handling and compressed air plant shall be serviced in accordance with the manufacturer's recommendations.

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 2.10 given in section 3.10 of the application.	22/03/01

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

- 2.10.3 There shall be provided:
- a** safe and permanent means of access to enable sampling/monitoring to be carried out in relation to the emission points specified in Schedule 2, unless otherwise specified in that Schedule; and
 - b** safe means of access to other sampling/monitoring points when required by the Agency.
- 2.10.4 The sampling and analysis to meet the periodic measurement requirements of emissions to air, as set out in Table 6.1.2 and reference measurements in order to calibrate continuous emission monitoring equipment shall be carried out as given by CEN standards. Until such time as the appropriate CEN standards are available, the following national standards shall be used.
- a** Carbon Monoxide – ISO/CD12039
 - b** Particulate – BS3405, BS6069:Section 4.3, BS ISO 10155(for continuous monitoring equipment).
 - c** Volatile Organic Compounds – pr-EN12619(draft CEN standard).
 - d** Hydrogen Chloride – BS EN 1911 (Parts 1-3).
 - e** Sulphur Dioxide – BS6069:Section 4.1, BS ISO 11632, BS6069:Section 4.4(for continuous monitoring equipment).
 - f** Dioxins and Furans TEQ(ng/m^3) – BS EN1948(Parts 1-3)
- 2.10.5 The sampling period for the determination of dioxins and furans shall be between 6 and 8 hours.
- 2.10.6 The sampling and analysis to meet the periodic measurement requirements for the total organic carbon content and protein content of particulate matter as set out in Table 6.1.2 and the total organic carbon content and protein content of bottom ash from the incinerator shall be carried out in accordance with the Environment Agency Guidelines For Ash Sampling and Analysis.
- 2.10.7 The sampling and analysis to meet the periodic measurement requirements of emissions to water and to sewer, as set out in Tables 6.3.2 and 6.4.2 shall be carried out using the following techniques
- a** Total suspended solids – gravimetric measurement after drying at 105°C .
 - b** Total chemical oxygen demand (COD) – determined after 2 hours reflux with sulphuric acid and potassium dichromate at 150°C .
 - c** Free or emulsified grease or oil – Infra red spectroscopy.
 - d** Mineral oil and hydrocarbons – Infra red spectroscopy.
 - e** Organophosphorus compounds – Gas chromatography mass spectrometry.
- 2.10.8 Where sampling and analysis techniques to meet the periodic measurement requirements of emissions to water and to sewer are not specified in condition 2.10.7, these are to be agreed in writing with 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 2.11 given in section 3.11 of the application	22/03/01

2.12 Multi-operator installations

- 2.12.1 This is not a multi-operator installation

3

Records

- 3.1.1 A record (a "Specified Record") shall be made of:-
- a** any malfunction, breakdown or failure of plant, equipment or techniques (including down time and any short term and long term remedial measures) that may have, has had or might have had an effect on the environmental performance of the Permitted Installation. These records shall be kept in a log maintained for that purpose;
 - b** all monitoring and sampling taken or carried out and any assessment or evaluation made on the basis of such data.
- 3.1.2 There shall be made available for inspection by the Agency at any reasonable time:
- a** Specified Records;
 - b** any other records made by the Operator in relation to the operation of the Permitted Installation ("Other Records").
- 3.1.3 A copy of any Specified or Other Records shall be supplied to the Agency on demand and without charge.
- 3.1.4 Specified Records and Other Records shall:-
- a** be legible;
 - b** be made as soon as reasonably practicable;
 - c** indicate any amendments which have been made and shall include the original record wherever possible.
- 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 installation.
- 3.1.6 For all waste received at or produced from the Permitted Installation, the Operator shall record (and shall retain such records for a minimum of 4 years)
- a** its composition, or as appropriate, description;
 - b** the best estimate of the quantity produced;
 - c** its disposal routes; and
 - d** the best estimate of the quantity sent for recovery.
- 3.1.7 A record shall be made at the Permitted Installation of any complaints concerning the Installation's effect or alleged effect on the environment. The record shall give the date of complaint, time of complaint, a summary of any investigation and the results of such investigation. Such records shall be made in a log kept for this purpose.

4 Reporting

- 4.1.1 All reports and notifications required by this Permit, or by Regulation 16 of the PPC Regulations, shall be sent to the Environment Agency at the address notified in writing to the Operator by the Agency .
- 4.1.2 The Operator shall report the parameters listed in Table S2 to Schedule 2 as follows:
- a** in respects of the emission points specified;
 - b** for the reporting periods specified in Table S2 to Schedule 2 and using the forms specified in Table S3 to Schedule 3;
 - c** giving the information from such results and assessments as may be required by the forms specified in those Tables; and
 - d** sending the report to the Agency within 28 days of the end of the reporting period.
- 4.1.3 Once 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.

Notifications

- 5.1.1 The Operator shall notify the Agency **without delay** of:-
- a** the detection of an emission of any substance which exceeds any limit or criteria in this Permit specified in relation to the substance;
 - b** the detection of any fugitive emission which has caused or may cause pollution unless the quantity emitted is so trivial that it would be incapable of causing pollution;
 - c** the detection of any malfunction, breakdown or failure of plant or techniques which has caused or may have the potential to cause pollution; and
 - d** any accident which has caused or may have the potential to cause pollution.
- 5.1.2 The Operator shall submit written confirmation to the Agency of any notification under condition 5.1.1 in accordance with Schedule 1 to this Permit, by sending the information listed in Part A of Schedule 1 to this Permit within 24 hours of such notification. The Operator shall send the more detailed information listed in Part B of that Schedule as soon as practicable thereafter.
- 5.1.3 The Operator shall give written notification as soon as practicable, of any of the following
- a** permanent cessation of the operation of any part of or all of the Permitted Installation;
 - b** cessation of the operation of any part of or all of the Permitted Installation for a period, likely to exceed 1 year; and
 - c** resumption of the operation of any part of or all of the Permitted Installation after a cessation notified under 5.1.3(b).
- 5.1.4 The Operator shall notify the following matters to the Agency, in writing, within 14 days of their occurrence:
- i** any change in the Operator's trading name, registered name or registered office address;
 - ii** a change to any particulars of the Operator's ultimate holding company (including details of an ultimate holding company where the Operator has become a subsidiary);
 - iii** any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up.

6

Emissions

6.1 Emissions into air

- 6.1.1 Emissions to air from the emission point(s) specified in Table 6.1.1 shall only arise from the source(s) specified in that Table. (Refer to Site Layout reference 95022/16 supplied as response to question 1 of Schedule 4 Part1 Notice dated 04/06/01 (2)).

Table 6.1.1: Emission points into air

Emission point reference/description	Source	Location of emission point
A1	Incinerator 16m high main stack	Incinerator Facility IF1
A2	Incinerator 16m high by-pass stack	Incinerator Facility IF1
A3	Steam raising boiler No 1 stack	Boiler Plant IF2
A4	Steam raising boiler No 2 stack	Boiler Plant IF2
A5	Vacuum System exhaust	Points NE21 and NE24

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

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

Table 6.1.2: Emission limits into air

Parameters	Emission Point				
	A1	A2	A3	A4	A5
Sulphur dioxide mg/m ³ (as 20 min average)	300	-	-	-	-
Frequency of monitoring	Annual				
Volatile Organic Compounds (as carbon) mg/m ³	20	-	-	-	-
Frequency of monitoring	Annual				
Gaseous Chlorides (as HCl) mg/m ³	100	-	-	-	-
Frequency of monitoring	Annual				
Oxides of nitrogen (as NO _x) mg m ⁻³	-	-	-	-	-
Frequency of monitoring	Quarterly		Annual	Annual	
Particulate mg/m ³ (min 4 hour sample)	100	-	-	-	-
Frequency of monitoring	Continuous and Annual				
Carbon monoxide* mg/m ³ (hourly average)	100	-	-	-	-
95% of all measurements determined as averages over 10 minute periods, taken in any 24 hour period, mg/m ³ .	150				
Frequency of monitoring	Continuous		Annual	Annual	
Oxygen* dry %		-	-	-	-
Minimum average value	6%				
Minimum spot value	3%				
Frequency of monitoring	Continuous				
Dioxins and Furans** (expressed as ITEQ equivalent) ng/m ³	1	-	-	-	-
Frequency of monitoring	Annual				
Polycyclic Aromatic Hydrocarbons (as benzo- a-pyrene), mg/m ³	-	-	-	-	-
Frequency of monitoring	Annual				
Particulate Total organic carbon content %	-	-	-	-	-
Frequency of monitoring	Annual				
Particulate Total Protein mg/100g	-	-	-	-	-
Frequency of monitoring	Annual				

** as measured at the outlet of the secondary combustion chamber.*

*** polychlorinated dibenzo dioxins and polychlorinated dibenzo furans. ITEQ equivalent factors as expressed in Table 38 page 68 of IPC Guidance Note S2 5.01 Waste Incineration.*

- 6.1.4 All emissions from the Installation should be free from offensive odour outside the boundary of the Installation, as perceived by an Authorised Officer.
- 6.1.5 All emissions to air resulting from the incinerator, other than steam or condensed water vapour, shall be free from droplets, from persistent mist and persistent fume.
- 6.1.6 All emissions from the incinerator shall be free from visible smoke. If for reasons of maintenance, emissions of smoke are caused due to re-ignition from cold, this shall be for no longer than a period of 10 minutes in any period of 8 hours and all practical steps must have been taken to minimise the emission.
- 6.1.7 In relation to emissions from the incinerator the use of odour masking agents and counteractants shall not be permitted.

6.2 Emissions to land

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

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

6.3 Emissions to water [other than emissions to sewer]

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

Table 6.3.1: Emission points into water

Emission Point Reference.	Source	Receiving Water
W1	Site drainage via interceptor located to south east of the effluent treatment plant.	Drainage ditch along southern boundary of site, flowing into the Nant Carno.
W2	Site drainage via interceptor adjacent to the 'Clean Lorry Wash' area.	Drainage ditch along southern boundary of site, flowing into the Nant Carno.

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

Table 6.3.2: Emission limits into water

Parameter	Emission Point W1	Emission Point W2	Monitoring Frequency
Mineral oil and hydrocarbons mg/l	5	5	Monthly
Total suspended solids mg/l	50	50	Monthly

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

6.3.4 There shall be no emission into water from the Permitted Installation of any substance prescribed for water for which no limit is specified in Table 6.3.2 except in a concentration which is no greater than the background concentration.

6.4 Emissions to sewer

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

Table 6.4.1 Emission points into sewer

Emission point reference	Source	Sewer
S1	Discharge line from pumping pit 11 into sewer.	Dwr Cymru/Welsh Water foul sewer.
S2	'Domestic' effluent from Offices and Laundry	Dwr Cymru/Welsh Water foul sewer.

6.4.2 The limits for the emissions into sewer for the parameter(s) and emission point(s) set out in Table 6.4.2 shall not be exceeded.

Table 6.4.2 Emission limits into sewer

Parameter	Emission point S1	Emission point S2
pH range	6-11	-
Total suspended solids mg/l	600	-
Total chemical oxygen demand (COD) mg/l	3600	-
Free or emulsified grease or oil mg/l	100	-
Anionic synthetic detergent as manoxol OT mg/l	100	-
Dissolved oxygen mg/l	-	-
Ammoniacal nitrogen as N mg/l	30	-
Daily flow m ³	800	-
Maximum flow rate m ³ /hour	34	-

6.4.3 The Operator shall carry out monitoring of the parameters listed in Tables 6.4.3a and 6.4.3b, from the emission points and at least at the frequencies specified in those Tables.

Table 6.4.3a Monitoring requirements for sewer (upto and including 31/12/01)

Parameter	Emission point S1	Emission point S2
pH range	Daily (spot check)	-
Total suspended solids mg/l	Two samples per week (as 24 hour composite)	-
Total chemical oxygen demand (COD) mg/l	Two samples per week (as 24 hour composite)	-
Free or emulsified grease or oil mg/l	Weekly (as one off 24 hour composite)	-
Anionic synthetic detergent as manoxol OT mg/l	Two samples per week (as 24 hour composite)	-
Dissolved oxygen	Daily (spot check)	-
Ammoniacal nitrogen as N mg/l	Two samples per week (as 24 hour composite)	-
Daily flow m ³	Continuous (integrated with flow rate measurement)	-
Maximum flow rate m ³ /hour	Continuous	-
Organophosphorus Compounds	Annual (as one off 24 hour composite)	-

Table 6.4.3b Monitoring requirements for sewer (from 01/01/02)

Parameter	Emission point S1	Emission point S2
pH range	Continuous	-
Total suspended solids mg/l	Weekly (as one off 24 hour composite)	-
Total chemical oxygen demand (COD) mg/l	Weekly (as one off 24 hour composite)	-
Free or emulsified grease or oil mg/l	Monthly (as one off 24 hour composite)	-
Anionic synthetic detergent as manoxol OT mg/l	Weekly (as one off 24 hour composite)	-
Dissolved oxygen	Continuous	-
Ammoniacal nitrogen as N mg/l	Weekly (as one off 24 hour composite)	-
Daily flow m ³	Continuous (integrated with flow rate measurement)	-
Maximum flow rate m ³ /hour	Continuous	-
Organophosphorus Compounds	Annual (as one off 24 hour composite)	-

6.4.4

There shall be no emission into sewer from the Permitted Installation of any substance prescribed for water for which no limit is specified in Table 6.4.2 except in a concentration, which is no greater than the background concentration.

6.5 **Emissions of heat**

6.5.1 No conditions specified.

6.6 Emissions of noise and vibration

6.6.1 No conditions specified.

7

Transfer to effluent treatment plant

7.1.1

No transfers to effluent treatment plant are controlled under this part of this Permit. Emissions to water are controlled under 6.3 and/or 6.4

8 Off site conditions

8.1.1 There are no off site conditions.

9

Improvement programme

9.1.1

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

Table 9.1.1: Improvement programme requirements

Reference	Requirement	Date
9.1	The Operator shall, within 36 months of the issue of this Permit, submit a report on potential environmental improvements to the Permitted Installation. For each of the subject areas identified in Section 2 of the appropriate technical guidance, the report shall assess the costs and benefits of alternative techniques that may provide environmental improvement. This shall include, but not be limited to, those techniques listed in guidance. The methodologies used should be based on those given in Agency guidance note H1 and should justify, against the BAT criteria, where potential improvements are not planned to be implemented. As part of their management system, the Operator shall submit an updated report every 36 months	31/07/04
9.2	A report shall be sent to the Agency on establishing an Environmental Management System having regard to section 2.1 of the relevant IPPC Sectoral or other Technical Guidance. The report shall include any proposals to implement such a programme.	31/12/01
9.3	Fugitive emissions shall be reviewed on an annual basis and a summary report on this review shall be sent to the Agency detailing such releases and the measures taken to reduce them.	31/12/01 for first report
9.4	The Operator shall a) Put forward options such that effluent from release point S1 enters the Dwr Cymru Welsh Water sewerage system (under normal operation) as an essentially continuous flow, rather than the currently engineered pulsed flow system. b) Identify the best available solution.	1 calendar month from the date of the permit.
9.5	The Operator shall install and implement the solution identified in improvement item 9.4.	30/11/01
9.6	The Operator to complete a complete hazard and risk assessment for the installation as described in Section 2.8 of the IPPC General Sector Guidance IPPC S0.01 version 2, a copy of the assessment to be supplied to the Agency	31/12/01
9.7	The Operator shall assess the requirement to use odour masking agents or filtration units on effluent plant storage tanks.	31/12/01
9.8	The Operator shall put forward proposals for an environmental monitoring programme, to monitor releases from the proposed on site incineration process.	31/03/02
9.9	The Operator shall prepare an updated Site Closure Plan, which details the actions to be taken on the definitive cessation of operations to avoid any pollution risk and to return the site of the installation to a satisfactory state. The plan shall be reviewed and updated as necessary on a bi-annual basis.	31/07/02 for first report.
9.10	The Operator shall undertake a full noise survey according to procedures laid down in BS7445:1991 Description and Measurement of Environmental Noise, and BS4142 Method for Rating Industrial Noise Affecting Mixed Residential and Industrial Areas, over a period of time when normal manufacturing processes are being carried out. The	30/11/02

	specification of the survey shall be agreed with the Agency prior to undertaking this work. A report detailing the findings of the survey to be sent to the Agency at the Reporting Address.	
9.11	The Operator shall carry out a BAT review of the incinerator stack height. This review to include any relevant monitoring and environmental data obtained.	31/12/02
9.12	The Operator shall report on the effectiveness of using ozonised water as a replacement for sanitiser chemicals at the Installation. A copy of the report shall be sent to the Agency.	31/12/02
9.13	<p>The Operator shall:</p> <ul style="list-style-type: none"> a) provide at detailed commissioning plan for the on site incineration process, including details for the monitoring and reporting of releases during the commissioning phase, b) provide details of the planned maintenance schedule for the incinerator. 	2 months prior to the commissioning of the on site incineration process.

10

Interpretation

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

"Authorised Officer"

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

"Background concentration"

means the same as "background quantity" as defined in paragraph 11 to Part 2 to Schedule 1 of the PPC Regulations.

"Fugitive emission"

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

"Monitoring"

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

"Permitted Installation"

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

"PPC Regulations"

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

"Staff"

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

"substances prescribed for water"

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

"year"

means year ending 31 December.

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

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

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

- b** in relation to gases from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content; and/or
- c** in relation to gases from the incinerator, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 11% dry.

11

Written agreement to changes

11.1.1

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

- a** the Operator shall give the Agency written notice of the details of the proposed change, indicating the relevant part(s) of this Permit; and
- b** such notice shall include an assessment of the possible effects of the proposed change (including waste production) on risks to the environment from the Permitted Installation.

11.1.2

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

Schedule 1

Confirmation of condition 5.1.1 notifications, in accordance with condition 5.1.2

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

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

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

Returns should contain

Part A

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

Part B

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

- | | |
|--|------------------------------------|
| <input type="checkbox"/> Name | <input type="checkbox"/> Post..... |
| <input type="checkbox"/> Signature | <input type="checkbox"/> Date |
| <input type="checkbox"/> Statement that signatory is 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.

Table S2: Reporting of monitoring data

Parameter	Emission point	Reporting period	Period begins
Oxygen %	A1	Monthly	01/08/01
Carbon monoxide mg/m ³	A1	Monthly	01/08/01
Carbon monoxide mg/m ³	A3, A4	Annually	01/08/01
Sulphur dioxide mg/m ³	A1	Annually	01/08/01
Volatile Organic Compounds (as carbon) mg/m ³	A1	Annually	01/08/01
Oxides of nitrogen mg/m ³	A1, A3, A4	Annually	01/08/01
Gaseous chlorides as HCl mg/m ³	A1	Annually	01/08/01
Particulates mg/m ³	A1	Annually	01/08/01
Dioxins and Furans (expressed as ITEQ equivalent) ng/m ³	A1	Annually	01/08/01
Polycyclic Aromatic Hydrocarbons (as benzo-a-pyrene) mg/m ³	A1	Annually	01/08/01
Total organic carbon content %	A1	Annually	01/08/01
	Incinerator bottom ash	6 monthly	01/08/01
Protein content mg/100g	A1	Annually	01/08/01
	Incinerator bottom ash	6 monthly	01/08/01
Details of Operation	A2	Quarterly	01/08/01
Mineral oil and hydrocarbons mg/l	W1, W2	Quarterly	01/08/01
Free or emulsified grease or oil mg/l	S1	Monthly	01/08/01
Suspended solids mg/l	W1, W2	Quarterly	01/08/01
Suspended solids mg/l	S1	Monthly	01/08/01
pH	S1	Monthly	01/08/01
Total chemical oxygen demand (COD) mg/l	S1	Monthly	01/08/01
Anionic synthetic detergent as manoxol OT mg/l	S1	Monthly	01/08/01
Dissolved oxygen mg/l	S1	Monthly	01/08/01
Ammoniacal nitrogen as N mg/l	S1	Monthly	01/08/01
Daily flow m ³	S1	Monthly	01/08/01
Maximum flow rate m ³ /h	S1	Monthly	01/08/01
Organophosphorus mg/l	W1, W2, S1	Annually	01/08/01
Delivered electricity MWh		Annually	01/08/01
Primary electricity MWh		Annually	01/08/01
Primary carbon dioxide te		Annually	01/08/01
Delivered gas MWh		Annually	01/08/01
Process water m ³		Annually	01/08/01
Animal tissue te		Annually	01/08/01
Blood te		Annually	01/08/01
Incinerator bottom ash te		Annually	01/08/01

Packaging materials te	Annually	01/08/01
Detergents te	Annually	01/08/01
Sanitiser/hygiene chemicals te	Annually	01/08/01
Refrigerants te	Annually	01/08/01
Other Wastes	Annually	01/08/01

Schedule 3

Forms to be used

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

Table S3:Reporting Forms		
Media/parameter	Form Number	Date of Form
Air	A1	23/07/01
Air	A2	23/07/01
Air	A3	23/07/01
Air	A4	23/07/01
Air/Incinerator bottom ash	A5	23/07/01
Water	W1	23/07/01
Sewer	S1	23/07/01
Sewer/water	S2	23/07/01
Energy/water return	R1	23/07/01
Waste Return	R2	23/07/01

END OF PERMIT