Permit with introductory note

Pollution Prevention and Control (England & Wales) Regulations 2000

Docksway Generation Plant
Docksway
Maes Glas
Newport
Gwent
NP20 2NS

Permit number

LP3135SB

Contents

Introductory note

This introductory note does not form a part of the Permit

The following Permit is issued under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No.1973), as amended, ("the PPC Regulations") to operate an installation carrying out activities covered by the description in Section 1.1A(1)(b)(iii) in Part 1 to Schedule 1 of the PPC Regulations, to the extent authorised by the Permit:

> Section 1.1A(1)(b)(iii) - "Burning any of the following fuels in an appliance with a rated thermal input of 3 megawatts or more but less than 50 megawatts unless the activity is carried out as part of a Part A (2) or B activity "-
>
> > any fuel manufactured from, or comprising, any other waste.

Aspects of the operation of the installation which are not regulated by conditions of the Permit are subject to the condition implied by Regulation 12(10) of the PPC Regulations, i.e. 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.

In some sections of the Permit conditions require the Operator to use Best Available Techniques (BAT), in each of the aspects of the management of the installation, to prevent and where that is not practicable to reduce emissions. The conditions do not explain what is BAT. In determining BAT, the Operator should pay particular attention to relevant sections of the IPPC Sector guidance, appropriate Horizontal guidance and other relevant guidance.

A non-technical description of the installation is given in the Application, but the main features of the installation are as follows.

Non-Technical Summary

The Docksway Gas Plant (DWGP) is located to the south west of the Newport City Council operated Docksway landfill site. **Novera Energy Generation No. 2 Limited** (NEG2) (formerly known as United Utilities Green Energy Ltd (UUGE)) operate and manage the engines and plant associated with the DWGP. The generating plant consists of **two Jenbacher 320 GS landfill gas spark ignition engines**, each with a design electrical output of 1,065 kW. The products of combustion are be discharged to atmosphere via a 5.5-metre stack on each engine. The process also includes associated items of process plant such as compressors, air blast chillers, landfill gas blowers, knock out pots and flare (the flare, knock out pots, leachate/condensate collection system is not considered within the scope of this application).

Under normal operation, the thermal input of each Jenbacher 320 GS is likely to be around 2.61 MW, provided by landfill gas comprising of typically 50% methane, 36% carbon dioxide, 13% Nitrogen, 0.2% oxygen and trace quantities of other organic components.

Emissions to Air

As the generating plant burns its fuel it emits a number of pollutants, mainly oxides of nitrogen, carbon dioxide, carbon monoxide, methane and other non-methane organic compounds. Due to the nature of the fuel, i.e. 50% methane, the engine operates in a lean burn mode, this in effect reduces the quantities of nitrogen oxides emitted. The engines are controlled by a computerised engine management system, this

system is set at the routine maintenance periods to control the emissions of nitrogen oxides by continuously adjusting the engine operating parameters. No other abatement systems are installed as the primary emitted pollutant of potential concern is nitrogen oxide and this is minimised by the correct operation of the process. The use of qualified and trained staff and routine monitoring of process parameters are in place to ensure that emissions are minimised.

The process of burning landfill gas to generate electricity is considered to be
the Best Available Technique (BAT) for controlling the environmental impacts associated with landfill gas arising from the degradation of waste, this is detailed in the EA' s Guidance on the Management of Landfill Gas.

Emissions to Surface Water and Ground Water

All maintenance and water treatment chemicals stored on site are contained in impervious areas to prevent accidental releases. As some of the impervious areas are not bunded, an improvement condition has been included in the permit.

The condensate from the landfill gas and any liquid process effluent is not collected at present but is allowed to soak away on to the ground. Under improvement conditions this condensate and effluent will be collected and returned to the adjacent landfill site leachate treatment system. The leachate treatment system is currently regulated by the EA under a waste management licence and will be regulated under a PPC permit (if issued) for the adjacent NCC operated landfill.

Waste Handling, Recovery and Disposal

NEG2 operate a minimum waste policy at the generating plant. The waste arisings are mainly as a result of maintenance activities including waste oil and empty chemical drums used in normal operation for example antifreeze chemicals.
These wastes are imported into the generating compound during servicing by Clarke Energy, who hold the maintenance contract. In most cases, the wastes are transported off-site following routine servicing and returned to the suppliers for recycling or are disposed of in compliance with current best practice via licensed waste contractors.

Where items such as used oil filters are sent to an approved landfill site for disposal, (where there is no alternative disposal route), these are periodically audited as part of the obligations under "Duty of Care". These quantities are minimised and disposal is infrequent.

Energy

The net efficiency of the generating plant is 38%, this is limited due to the nature of the fuel. The main component in energy (fuel) consumption at the generating plant is predicted to be some 46,000 megawatt hours (MWh) of landfill gas annually, based on typical methane content of 50%, exporting some 18,700 MWh electricity per year. During start up, electricity can be imported from the local distribution grid to power the engines although this is minimal and is expected to be some 5 MWh per year. Once the engines have started, no more electricity is imported for normal operations.
DWGP uses a non-fossil fuel to generate electricity and is therefore part of the UK strategy for increasing electrical generation from renewable sources.

Accidents

The plant is designed to operate automatically, and along with the management systems in place will minimise the effects of any accidents on the environment. No accident scenarios which are considered 'Unacceptable' have been identified.

Noise and Vibration

The plant has been designed to minimise noise and vibration impact on the local sensitive receptors, including the local residential properties closest to the site. Measures adopted include initial plant specification and the careful siting of noise sources. The results of a noise assessment of the standard unit has shown that the impact of noise at any sensitive receptors is likely to be at an acceptable level. The plant will be maintained according to the manufacturer's recommendations.

Monitoring

NEG2 appreciate the importance of monitoring the process emissions and as part of the improvement programme the releases to atmosphere will be routinely monitored for a wide range of pollutants expected in the emissions including oxides of nitrogen, carbon monoxide, total volatile organic. compounds (as carbon) and total non-methane volatile organic compounds.

The emissions monitoring programme will use approved sampling methodologies and will be agreed with the Environment Agency (EA) prior to the measurements being taken. The sampling and/or monitoring undertaken will be done using MCERTS equipment and certified personnel.

Closure

Power generation activities are anticipated to last until 2020 at the site and these activities provide a potential risk of impact to the soil or groundwater beneath the site from chemicals and residues. The existing maintenance, housekeeping and management procedures are designed to prevent any significant impact to the soil and groundwater beneath the site. However, upon closure if required by the closure plan developed at that time, investigations to confirm soil and groundwater conditions, would be undertaken. Areas around chemical storage and engine plinth would be reviewed. These actions are discussed in the ASR and will be addressed in the Site Protection and Management Programme.

Installation Wide Issues

There are no other operators at the DWGP site and no operations or activities take place that are outside the scope of this application.

Other PPC Permits relating to this installation		
Permit holder	Permit Number	Date of Issue
Newport City Council	JP3739SR	Not yet issued (landfill is currently operated under Waste Management Licence (WML EAWML/30058))

Superseded Licences/Authorisations/Consents relating to this installation		
Holder	Reference Number	Date of Issue
Newport County Borough Council	EAWML30058	03 June 1987

Other activities may take place on the site of this installation which are not regulated under this Permit or any other PPC Permit referred to in the Table above.

Other existing Licences/Authorisations/Registrations relating to this site		
Holder	Reference Number	Date of issue
Newport County Borough Council (The WML will be partly superseded by PPC Permits LP3135SB and JP3739SR when issued)	EAWML30058	03 June 1987

Public Registers

Considerable information relating to Permits including the Application is available on public registers in accordance with the requirements of the PPC Regulations. Certain information may be withheld from public registers where it is commercially confidential or contrary to national security.

Variations to the Permit

This Permit may be varied in the future (by the Agency serving a Variation Notice on the Operator). If the Operator itself wants any of the Conditions of the Permit to be changed, it must submit a formal Application. The Status Log within the Introductory Note to any such Variation Notice 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 by the Operator. For the application to be successful, the Operator must be able to demonstrate to the Agency 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, an Application to transfer the Permit has to be made jointly by the existing and proposed holders. 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 comply with the conditions of the transferred Permit. If, however, the Permit authorises the carrying out of a specified waste management activity, the transfer will only be allowed if the proposed holder is also considered to be "a fit and proper person" as required by the PPC Regulations.

Talking to us

Please quote the Permit Number if you contact the Agency about this Permit.
To give a Notification under Condition 5.1.1, the Operator should use the Incident Hotline telephone number (0800 80 70 60) or any other number notified in writing to the Operator by the Agency for that purpose.

Status Log

Detail	Date	Response Date
Application LP3135SB	Received 09/11/2004	19/11/2005
Permit determined	07/04/2005	

End of Introductory Note.

Permit

Pollution Prevention and Control Regulations 2000

ENVIRONMENT AGENCY

Permit

Permit number
LP3135SB

The Environment Agency (the Agency) in exercise of its powers under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations (SI 2000 No 1973), hereby authorises **NOVERA ENERGY GENERATION NO. 2 LIMITED** ("the Operator"),

whose Registered Office (or principal place of business) is

2nd Floor Malt Building
Wilderspool Park
Greenhalls Avenue
Warrington Cheshire WA4 6HL

Company registration number 02366593

to operate an Installation at

Docksway Generation Plant

Docksway

Maes Glas

Newport

Gwent

NP20 2NS

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

Signed Date

Emily Finney

Team Leader SPG

Bristol Strategic Permitting Group

Authorised to sign on behalf of the Agency

Conditions

1 General

1.1 Permitted Activities

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

Table 1.1.1

Activity listed in Schedule 1 of the PPC Regulations / Associated Activity	Description of specified activity	Limits of specified activity
Section 1.1A(1)(b)(iii) Combustion Activities	Burning any fuel manufactured from, or comprising, any other waste in an appliance with a rated thermal input of 3 megawatts or more but less than 50 megawatts unless the activity is carried out as part of a Part A (2) or B activity	Includes on-site storage of materials, and operation of power plant, generators and air blast chillers, but does not include gas collection and delivery from landfill site, treatment of collected condensate or flares.

1.2 Site

1.2.1 The activities authorised under condition 1.1.1 shall not extend beyond the Site, being the land shown edged in red on the Site Plan at Schedule 5 to this Permit.

1.3 Overarching Management Condition

1.3.1 Without prejudice to the other conditions of this Permit, the Operator shall implement and maintain a management system, organisational structure and allocate resources that are sufficient to achieve compliance with the limits and conditions of this Permit.

1.4 Improvement Programme

1.4.1 The Operator shall complete the improvements specified in Table 1.4.1 by the date specified in that table, and shall send written notification of the date of completion of each requirement to the Agency within 14 days of the completion of each such requirement.

Table 1.4.1: Improvement programme		
Reference	Requirement	Date
IP 1	The Operator shall provide to the Agency, in writing: 1) A report detailing proposed methods for gathering initial monitoring data for the emissions from the stacks of the two spark ignition engines that comply with existing guidance (i.e. Guidance for Monitoring Landfill Gas Engine Emissions*)* for Agency approval. 2) A report detailing the results and conclusions of the monitoring exercise carried out following the monitoring programme approved by the Agency. The data collected from this initial monitoring programme shall be used by the Agency to set relevant ELVs for the installation that will be incorporated into the permit.	Within 6 months from the effective date of issue of this permit.
IP 2	Using the data collected from the monitoring programme described in IP 1 the Operator shall: 1) Re-run the H1 screening tool to calculate short term and long term process contributions for each of the substances released as emissions from the operation of the installation. 2) Carry out air dispersion modelling for emissions identified as being significant by the H1 screening tool and if the modelling shows that there is the potential for damage on the SSSI, compile a report of action necessary to prevent such damage. The results of both of these further studies shall be submitted in writing to the Agency and CCW will be notified when the results of the modelling is received from the Applicant, and will be provided with a copy of any actions identified by the Applicant	Within 9 months from the effective date of issue of this permit.
IP 3	The Operator shall implement a formal, documented procedure for the inspection and subsequent maintenance of above ground and underground tanks, drains, pipes and collection pits with the purpose of preventing fugitive releases to ground. A copy of the procedure shall be submitted in writing to the Agency.	Within 6 months from the effective date of issue of this permit.
IP 4	The Operator shall implement a formal, documented procedure for the inspection and subsequent maintenance of impervious surfaces and bunds with the purpose of preventing fugitive releases to ground. A copy of the procedure shall be submitted in writing to the Agency.	Within 6 months from the effective date of issue of this permit.
IP 5	The Operator shall establish a Site Closure Plan and submit a copy to the Agency for approval.	Within 18 months from the effective date of issue of this permit.

IP 6	The Operator shall carry out an assessment of the containment measures that exist onsite with the purpose of preventing fugitive releases to ground from the chemicals, oils and wastes that are held within the installation. The assessment shall specifically focus upon, but not be limited to, measures taken to ensure that any spillage on the areas of limited hardstanding will not migrate into the surrounding permeable ground, and that the storage of chemicals, oils and wastes on areas of loose gravel is avoided. The results of the assessment shall be submitted in writing to the Agency and the Operator shall undertake improvements that are assessed as being environmentally beneficial and economically viable.	Within 6 months from the effective date of issue of this permit.
IP 7	The Operator shall propose, and submit to the Agency for approval, a methodology to develop the analysis of the landfill gas feed with a focus on the presence of compounds that could lead to the emission of Dioxins.	Within 4 months from the effective date of issue of this permit.
IP 8	The Operator shall analyse the landfill gas feed using the methodology agreed with the Agency as a result of IP 7, and assess the potential release of dioxins from the generation plant as a result of the utilisation of the gas received from the Docksway Landfill. The Operator shall submit the results of this analysis to the Agency in writing.	Within 12 months from the effective date of issue of this permit.
IP 9	If within 12 months of the issue of the permit, complaints regarding noise emissions are received, the operator shall undertake a comprehensive noise assessment as described in paragraph 2.9.6 of Supplementary Technical Report A1/058.	Within 12 months from the effective date of issue of this permit.
IP 10	The Operator shall submit the results of the noise assessment (as described in IP9) to the Agency in writing.	Within 15 months from the effective date of issue of this permit.

1.4.2 Where the Operator fails to comply with any requirement by the date specified in Table 1.4.1 the Operator shall send written notification of such failure to the Agency within 14 days of such date.

1.5 Minor Operational Changes

1.5.1 The Operator shall seek the Agency's written agreement to any minor operational changes under condition 2.1.1 of this Permit by sending to the Agency: written notice of the details of the proposed change including an assessment of its possible effects (including waste production) on risks to the environment from the Permitted Installation; any relevant supporting assessments and drawings; and the proposed implementation date.

1.5.2 Any such change shall not be implemented until agreed in writing by the Agency. As from the agreed implementation date, the Operator shall operate the Permitted Installation in accordance with that change, and relevant provisions in the Application shall be deemed to be amended.

1.5.3 When the qualification "unless otherwise agreed in writing" is used elsewhere in this Permit, the Operator shall seek such agreement by sending to the Agency written notice of the details of the proposed method(s) or techniques.

1.5.4 Any such method(s) or techniques shall not be implemented until agreed in writing by the Agency. As from the agreed implementation date, the Operator shall operate the Permitted Installation using that method or technique, and relevant provisions in the Application (and the Site Protection and Monitoring Programme, as the case may be) shall be deemed to be amended.

1.6 Pre-Operational Conditions

1.6.1 There are no pre-operational conditions

1.7 Off-site Conditions

1.7.1 There are no off-site conditions

2 Operating conditions

2.1 In-Process Controls

2.1.1 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 2.1.1, or as otherwise agreed in writing by the Agency in accordance with conditions 1.5.1 and 1.5.2 of this Permit.

Table 2.1.1: Operating techniques

Description	Parts	Date Received
Application	The response to questions 2.1 and 2.2 given in pages 9-18, section 2.1-2.2, of the application Supplementary Technical Information Report A1/058 - report 14150	09/11/2004

2.1.2 The Permitted Installation shall, subject to the other conditions of this Permit, be operated using the techniques and in the manner described in the Site Protection and Monitoring Programme submitted under condition 4.1.7 of this Permit (as amended from time to time under condition 4.1.7), or as otherwise agreed in writing by the Agency.

2.2 Emissions

2.2.1 Emissions to Air, (including heat, but excluding Odour, Noise or Vibration) from Specified Points

2.2.1.1 This Part 2.2.1 of this Permit shall not apply to releases of odour, noise or vibration.

2.2.1.2 Emissions to air from the emission points in Table 2.2.1 shall only arise from the source(s) specified in that Table.

Table 2.2.1 : Emission points to air		
Emission point reference or description	Source	Location of emission point
A1 Engine stack 1	Exhaust of landfill gas spark ignition engine	Shown on Figure 2.1 Schematic diagram of the Docksway generating plant and Figure 2.2 'Photograph of the Docksway generating plant emission stacks and flare'. On page 10 of Supplementary Technical Information Report A1/058 - report 14150
A2 Engine stack 2	Exhaust of landfill gas spark ignition engine	Shown on Figure 2.1 Schematic diagram of the Docksway generating plant and Figure 2.2 'Photograph of the Docksway generating plant emission stacks and flare'. On page 10 of Supplementary Technical Information Report A1/058 - report 14150

2.2.1.3 The limits for emissions to air for the parameter(s) and emission point(s) set out in Table 2.2.2 shall not be exceeded. Emission limits for the point references identified in Table 2.2.1 are to be set following collection of adequate data by the Operator as a result of Improvement Conditions in Section 1.4 and Table 1.4.1 of this permit.

Table 2.2.2 : Emission limits to air and monitoring				
Emission point reference	Parameter	Limit (including Reference Period)[1]	Monitoring frequency	Monitoring method
A1 & A2	Nitrogen Dioxide	To be set upon collection of initial data set as required by Improvement Condition IP 1 and IP 2 in Table 1.4.1.	Annually (once initial data set has been collected as required by Improvement Condition IP 1 and IP 2in Table 1.4.1)	As documented in Agency's Guidance for Monitoring Landfill Gas Engine Emissions.
A1 & A2	Carbon Monoxide	To be set upon collection of initial data set as required by Improvement Condition IP 1 and IP 2 in Table 1.4.1.	Annually (once initial data set has been collected as required by Improvement Condition IP 1 and IP 2in Table 1.4.1)	As documented in Agency's Guidance for Monitoring Landfill Gas Engine Emissions.
A1 & A2	Sulphur Dioxide	To be set upon collection of initial data set as required by Improvement Condition IP 1 and IP 2 in Table 1.4.1.	Annually (once initial data set has been collected as required by Improvement Condition IP 1 and IP 2in Table 1.4.1)	As documented in Agency's Guidance for Monitoring Landfill Gas Engine Emissions.
A1 & A2	Total Volatile Organic Compounds (VOCs)	To be set upon collection of initial data set as required by Improvement Condition IP 1 and IP 2 in Table 1.4.1.	Annually (once initial data set has been collected as required by Improvement Condition IP 1 and IP 2in Table 1.4.1)	As documented in Agency's Guidance for Monitoring Landfill Gas Engine Emissions.
A1 & A2	Non-Methane Volatile Organic Compounds (NM VOCs)	To be set upon collection of initial data set as required by Improvement Condition IP 1 and IP 2 in Table 1.4.1.	Annually (once initial data set has been collected as required by Improvement Condition IP 1 and IP 2in Table 1.4.1)	As documented in Agency's Guidance for Monitoring Landfill Gas Engine Emissions.

Note 1: See Section 6 for reference conditions

2.2.2 Emissions to water (other than groundwater), including heat, from specified points

2.2.2.1 This Part 2.2.2 of this Permit shall not apply to releases of odour, noise or vibration or to releases to groundwater.

2.2.2.2 Conditions 2.2.2.3 - 2.2.2.6 shall not apply to emissions to sewer.

2.2.2.3 No emission from the Permitted Installation shall be made to water.

Emissions to sewer

2.2.2.7 No emission from the process of the Permitted Installation shall be made to sewer.

2.2.3 Emissions to groundwater

2.2.3.1 No emission from the Permitted Installation shall give rise to the introduction into groundwater of any substance in List I (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)).

2.2.3.2 No emission from within the Permitted Installation shall give rise to the introduction into groundwater of any substance in List II (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)) so as to cause pollution (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)).

2.2.3.3 For substances other than those in List I or II (as defined in the Groundwater Regulations 1998 (SI 1998 No.2746)), the Operator shall use BAT to prevent or where that is not practicable to reduce emissions to groundwater from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application.

2.2.4 Fugitive emissions of substances to air

2.2.4.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce fugitive emissions of substances to air from the Permitted Installation in particular from:

- storage areas
- buildings
- pipes, valves and other transfer systems
- open surfaces

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.2.5 Fugitive emissions of substances to water and sewer

2.2.5.1 Subject to condition 2.2.5.2 below, the Operator shall use BAT so as to prevent or where that is not practicable to reduce fugitive emissions of substances to water (other than Groundwater) and sewer from the Permitted Installation in particular from:

- all structures under or over ground
- surfacing
- bunding
- storage areas

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.2.5.2 There shall be no release to water that would cause a breach of an EQS established by the UK Government to implement the Dangerous Substances Directive 76/464/EEC.

2.2.6 Odour

2.2.6.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce odorous emissions from the Permitted Installation, in particular by:

- limiting the use of odorous materials
- restricting odorous activities
- controlling the storage conditions of odorous materials
- controlling processing parameters to minimise the generation of odour
- optimising the performance of abatement systems
- timely monitoring, inspection and maintenance
- employing, where appropriate, an approved odour management plan

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.2.7 Emissions to Land

2.2.7.1 This Part 2.2.7 of this Permit shall not apply to emissions to groundwater.

2.2.7.2 No emission from the Permitted installation shall be made to land.

2.3 Management

2.3.1 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.

Training

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

2.3.3 All staff shall be fully conversant with those aspects of the Permit conditions which are relevant to their duties and shall be provided with adequate professional technical development and training and written operating instructions to enable them to carry out their duties.

2.3.4 The Operator shall maintain a record of the skills and training requirements for all staff whose tasks in relation to the Permitted Installation may have an impact on the environment and shall keep records of all relevant training.

Maintenance

2.3.5 All plant and equipment used in operating the Permitted Installation, the failure of which could lead to an adverse impact on the environment, shall be maintained in good operating condition.

2.3.6 The Operator shall maintain a record of relevant plant and equipment covered by condition 2.3.5 and for such plant and equipment:

2.3.6.1 a written or electronic maintenance programme; and

2.3.6.2 records of its maintenance.

Incidents and Complaints

2.3.7 The Operator shall maintain and implement written procedures for:

2.3.7.1 taking prompt remedial action, investigating and reporting actual or potential non-compliance with operating procedures or emission limits; and

2.3.7.2 investigating incidents, (including any malfunction, breakdown or failure of plant, equipment or techniques, down time, any short term and long term remedial measures and near misses) and prompt implementation of appropriate actions; and

2.3.7.3 ensuring that detailed records are made of all such actions and investigations.

2.3.8 The Operator shall record and investigate complaints concerning the Permitted Installation's effects or alleged effects on the environment. The record shall give the date and nature of complaint, time of complaint, name of complainant (if given), a summary of any investigation and the results of such investigation and any actions taken.

2.4 Efficient use of raw materials

2.4.1 The Operator shall -

2.4.1.1 maintain the raw materials table or description submitted in Section 2.4 of the Application and in particular consider on a periodic basis whether there are suitable alternative materials to reduce environmental impact;

2.4.1.2 carry out periodic waste minimisation audits and water use efficiency audits. If such an audit has not been carried out in the 2 years prior to the issue of this Permit, then the first such audit shall take place within 2 years of its issue. The methodology used and an action plan for increasing the efficiency of the use of raw materials or water shall be submitted to the Agency within 2 months of completion of each such audit and a review of the audit and a description of progress made against the action plan shall be submitted to the Agency at least every 4 years thereafter; and

2.4.1.3 ensure that incoming water use is directly measured and recorded.

2.5 Waste Storage and Handling

2.5.1 The Operator shall design, maintain and operate all facilities for the storage and handling of waste on the Permitted installation such that there are no releases to water or land during normal operation and that emissions to air and the risk of accidental release to water or land are minimised.

2.5.2 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of litter from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.6 Waste recovery or disposal

2.6.1 Waste produced at the Permitted Installation shall be:

2.6.1.1 recovered to no lesser extent than described in the Application; and

2.6.1.2 where not recovered, disposed of while avoiding or reducing any impacts on the environment provided always that this is not done in any way that would have a greater effect on the environment than that described in the Application.

2.6.2 The Operator shall maintain the waste recovery or disposal table or description submitted in Section 2.6 of the Application and in particular review the available options for waste recovery and disposal for the purposes of complying with condition 2.6.1 above.

2.6.3 The Operator shall maintain and implement a system which ensures that a record is made of the quantity, composition, origin, destination (including whether this is a recovery or disposal operation) and where relevant removal date of any waste that is produced at the Permitted Installation.

2.7 Energy Efficiency

2.7.1 The Operator shall produce a report on the energy consumed at the Permitted Installation over the previous calendar year, by 31 January each year, providing the information required by condition 4.1.2.

2.7.2 The Operator shall maintain and update annually an energy management system which shall include, in particular, the monitoring of energy flows and targeting of areas for improving energy efficiency.

2.7.3 The Operator shall design, maintain and operate the Permitted Installation so as to secure energy efficiency, taking into account relevant guidance including the Agency's Energy Efficiency Horizontal Guidance Note as from time to time amended. Energy efficiency shall be secured in particular by:

- ensuring that the appropriate operating and maintenance systems are in place;
- ensuring that all plant is adequately insulated to minimise energy loss or gain;
- ensuring that all appropriate containment methods, (e.g. seals and self-closing doors) are employed and maintained to minimise energy loss;
- employing appropriate basic controls, such as simple sensors and timers, to avoid unnecessary discharge of heated water or air;
- where building services constitute more than 5% of the total energy consumption of the installation, identifying and employing the appropriate energy efficiency techniques for building services, having regard in particular to the Building services part of the Agency's Energy Efficiency Horizontal Guidance Note H2; and

maintaining and implementing an energy efficiency plan which identifies energy saving techniques that are applicable to the activities and their associated environmental benefit and prioritises them, having regard to the appraisal method in the Agency's Energy Efficiency Horizontal Guidance Note H2.

2.8 Accident prevention and control

2.8.1 The Operator shall maintain and implement when necessary the accident management plan submitted or described in Section 2.8 of the Application. The plan shall be reviewed at least every 2 years or as soon as practicable after an accident, whichever is the earlier, and the Agency notified of the results of the review within 2 months of its completion.

2.9 Noise and Vibration

2.9.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of noise and vibration from the Permitted Installation, in particular by:

- equipment maintenance, eg. of fans, pumps, motors, conveyors and mobile plant;
- use and maintenance of appropriate attenuation, eg. silencers, barriers, enclosures;
- timing and location of noisy activities and vehicle movements;
- periodic checking of noise emissions, either qualitatively or quantitatively; and
- maintenance of building fabric,

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.10 On-site Monitoring

2.10.1 The Operator shall maintain and implement an emissions monitoring programme which ensures that emissions are monitored from the specified points, for the parameters listed in and to the frequencies and methods described in Table 2.2.2, unless otherwise agreed in writing, and that the results of such monitoring are assessed. The programme shall ensure that monitoring is carried out under an appropriate range of operating conditions.

2.10.2 No Condition

2.10.3 No Condition

2.10.4 No Condition

2.10.5 The Operator shall notify the Agency at least 14 days in advance of undertaking monitoring and/ or spot sampling, where such notification has been requested in writing by the Agency.

2.10.6 The Operator shall maintain records of all monitoring taken or carried out (this includes records of the taking and analysis of samples instrument measurements (periodic and continual), calibrations, examinations, tests and surveys) and any assessment or evaluation made on the basis of such data.

2.10.7 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme in condition 2.10.1 of this Permit shall have either MCERTS certification or MCERTS accreditation (as appropriate) unless otherwise agreed in writing.

2.10.8 There shall be provided:

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

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

2.10.9 The Operator shall carry out the on-going monitoring identified in the Site Protection and Monitoring Programme submitted under condition 4.1.7, unless otherwise agreed in writing by the Agency.

2.10.10 The Operator shall, within 6 months of the issue of this Permit, in accordance with and using the format given in the Land Protection Guidance:

2.10.10.1 collect the site reference data identified in the Site Protection and Monitoring Programme submitted under condition 4.1.7, and

2.10.10.2 report that site reference data to the Agency,

- unless otherwise agreed in writing by the Agency.

2.11 Closure and Decommissioning

2.11.1 The Operator shall maintain and operate the Permitted Installation so as to prevent or minimise any pollution risk, including the generation of waste, on closure and decommissioning in particular by:-

2.11.1.1 attention to the design of new plant or equipment;

2.11.1.2 the maintenance of a record of any events which have, or might have, impacted on the condition of the site along with any further investigation or remediation work carried out; and

2.11.1.3 the maintenance of a site closure plan to demonstrate that the installation can be decommissioned avoiding any pollution risk and returning the site of operation to a satisfactory state.

2.11.2 Notwithstanding condition 2.11.1 of this Permit, the Operator shall carry out a full review of the Site Closure Plan at least every 4 years.

2.11.3 The site closure plan shall be implemented on final cessation or decommissioning of the Permitted activities or part thereof.

2.11.4 The Operator shall give at least 30 days written notice to the Agency before implementing the site closure plan.

2.12 Multiple Operator installations

2.12.1 The following conditions apply as a result of interactions between the Permits covering this installation :

2.12.2 The operator of the (Land fill permit JP3739SR if granted) or (WML EAWML/30058) shall be responsible for the extraction of gas from the landfill and all the gas supply pipe work up until it reaches the point at which it reaches the gas engine compound boundary. Responsibility shall then transfer to the holder of this permit. The Operator of the Landfill also holds responsibility for the collected condensate that is returned to the leachate handling system contained within the boundary of permit JP3739SR or WML EAWML/30058.

2.12.3 Both Operators on the site shall co-operate to ensure the safe extraction and combustion of the landfill gas using the systems they have agreed and set out in the application.

2.13 Transfer to effluent treatment plant

2.13.1 No transfer from the Permitted Installation shall be made to effluent treatment plant.

3 Records

3.1 The Operator shall ensure that all records required to be made by this Permit and any other records made by it in relation to the operation of the Permitted Installation shall:-

3.1.1 be made available for inspection by the Agency at any reasonable time;

3.1.2 be supplied to the Agency on demand and without charge;

3.1.3 be legible;

3.1.4 be made as soon as reasonably practicable;

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

3.1.6 be retained at the Permitted Installation, or other location agreed by the Agency in writing, for a minimum period of 4 years from the date when the records were made, unless otherwise agreed in writing; and

3.1.7 where they concern the condition of the site of the Installation or are related to the implementation of the Site Protection and Monitoring Programme, be kept at the Permitted Installation, or other location agreed by the Agency in writing, until all parts of the Permit have been surrendered.

4 Reporting

4.1.1 All reports and written and or oral notifications required by this Permit and notifications required by Regulation 16 of the PPC Regulations shall be made or sent to the Agency using the contact details notified in writing to the Operator by the Agency.

4.1.2 The Operator shall, unless otherwise agreed in writing, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:-

4.1.2.1 in respect of the parameters and emission points specified in Table S2 to Schedule 2;

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

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

4.1.2.4 to the Agency within 28 days of the end of the reporting period.

4.1.3 The Operator shall submit to the Agency a report on the performance of the Permitted Installation over the previous year, by 31 January each year, providing the information listed in Tables S4.1 and S4.2 of Schedule 4, assessed at any frequency specified therein, and using the form specified in Table S3 to Schedule 3.

4.1.4 The Operator shall review fugitive emissions, having regard to the application of Best Available Techniques, on an annual basis, or such other period as shall be agreed in writing by the Agency, and a summary report on this review shall be sent to the Agency detailing such releases and the measures taken to reduce them within 3 months of the end of such period.

4.1.5 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.

4.1.6 The Operator shall, within 6 months of receipt of written notice from the Agency, submit to the Agency a report assessing whether all appropriate preventive measures continue to be taken against pollution, in particular through the application of the best available techniques, at the installation. The report shall consider any relevant published technical guidance current at the time of the notice which is either supplied with or referred to in the notice, and shall assess the costs and benefits of applying techniques described in that guidance, or otherwise identified by the Operator, that may provide environmental improvement.

4.1.7 The Operator shall, within two months of the date of this permit, submit a detailed Site Protection and Monitoring Programme, in accordance with and using the appropriate template format given in the Land Protection Guidance. The Operator shall implement and maintain the Site Protection and Monitoring Programme (SPMP) submitted under this condition, and shall carry out regular reviews of it at a minimum frequency of every 2 years. The results of such reviews and any changes made to the SPMP shall be reported to the Agency within 1 month of the review or change.

5 Notifications

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

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

5.1.1.2 the detection of any fugitive emission which has caused, is causing or may cause significant pollution;

5.1.1.3 the detection of any malfunction, breakdown or failure of plant or techniques which has caused, is causing or has the potential to cause significant pollution; and

5.1.1.4 any accident which has caused, is causing or has the potential to cause significant pollution.

5.1.2 The Operator shall submit written confirmation to the Agency of any notification under condition 5.1.1, by sending:-

5.1.2.1 the information listed in Part A of Schedule 1 to this Permit within 24 hours of such notification; and

5.1.2.2 the more detailed information listed in Part B of that Schedule as soon as practicable thereafter;

and such information shall be in accordance with 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 submitted under condition 4.1.7 of this Permit.

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 Interpretation

6.1.1 In this Permit, the following expressions shall have the following meanings:-

"Application" means the application for this Permit, together with any response to a notice served under Schedule 4 to the PPC Regulations and any operational change agreed under the conditions of this Permit.

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

- water supplied to the site; or
- where more than 50% of the water used at the site is directly abstracted from ground or surface water on site, the abstracted water; or
- where the Permitted Installation uses no significant amount of supplied or abstracted water, the precipitation on to the site.

"BAT" means best available techniques means the most effective and advanced stage of development of activities and their methods of operation which indicates the practical suitability of particular techniques to prevent and where that is not practicable to reduce emissions and the impact on the environment as a whole. For these purposes: "available techniques" means "those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the cost and advantages, whether or not the techniques are used or produced inside the United Kingdom, as long as they are reasonably accessible to the operator"; "best" means "in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole" and "techniques" "includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned." . In addition, Schedule 2 of the PPC Regulations has effect in relation to the determination of BAT.

"Fugitive emission" means an emission to air or water (including sewer) from the Permitted Installation which is not controlled by an emission or background concentration limit under condition 2.2.1.3 of this Permit.

"Groundwater" means all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"Land Protection Guidance" means the version of the Agency guidance note "H7 - *Guidance on the Protection of Land under the PPC Regime: Application Site Report and Site Protection and Monitoring Programme",* including its appended templates for data reporting, which is current at the time of issue of the Permit.

"$L_{Aeq,T}$*"* means the equivalent continuous A-weighted sound pressure level in dB determined over time period, T.

"$L_{A90,\ T}$*"* means the A-weighted sound pressure level in dB exceeded for 90% of the time period, T.

"L_{AFmax}*"* means the maximum A weighted sound level measurement in dB measured with a fast time weighting.

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"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 (England and Wales) Regulations SI 2000 No.1973 (as amended) and words and expressions defined in the PPC Regulations shall have the same meanings when used in this Permit save to the extent they are specifically defined in this Permit.

"Sewer" means sewer within the meaning of section 219(1) of the Water Industry Act 1991.

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

"Year" means calendar year ending 31 December.

"Annual" for reporting/sampling means after/during each year and, when sampling, with at least 4 months between each sampling date.

"*mg/m*^{3}" means milligram per cubic metre.

"MWh" means megawatt hour.

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

6.1.3 Unless otherwise stated, any references in this Permit to concentrations of substances in emissions into air means:-

6.1.3.1 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

6.1.3.2 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

6.1.4 Where any condition of this Permit refers to the whole or parts of different documents, in the event of any conflict between the wording of such documents, the wording of the document(s) with the most recent date shall prevail to the extent of such conflict.

Schedule 1 - Notification of abnormal emissions

This page outlines the information that the Operator must provide to satisfy conditions 5.1.1 and 5.1.2 of this Permit.

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

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

Part A

Permit Number	
Name of Operator	
Location of Installation	
Location of the emission	
Time and date of the emission	

Substance(s) emitted	Media	Best estimate of the quantity or the rate of emission	Time during 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 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 or harm which has been or may be caused by the emission	
The dates of any unauthorised emissions from the installation in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of Novera Energy Generation No. 2 Limited

Schedule 2 - Reporting of monitoring data

Parameters for which reports shall be made, in accordance with conditions 4.1.2 and 4.1.3 of this Permit, are listed below.

Table S2: Reporting of monitoring data

Parameter	Emission point	Reporting period	Period begins
Total Volatile Organic Compounds (VOCs) mg m^{-3}	A1, A2	Annually	On the anniversary of the date of issue of this permit
Non methane VOCs mg m^{-3}	A1, A2	Annually	On the anniversary of the date of issue of this permit
Sulphur Dioxide mg m^{-3}	A1, A2	Annually	On the anniversary of the date of issue of this permit
Oxides of Nitrogen mg m^{-3}	A1, A2	Annually	On the anniversary of the date of issue of this permit
Carbon Monoxide mg m^{-3}	A1, A2	Annually	On the anniversary of the date of issue of this permit

Reporting values based on reference conditions i.e. 273K, 101.3kPa, 5% oxygen content and dry gas.

Schedule 3 - Forms to be used

Table S3: Reporting Forms		
Media / parameter	Form Number	Date of Form
Air	A1	
Energy	E1	
Water usage	WU1	
Performance indicators	PI1	

Schedule 4 - Reporting of performance data

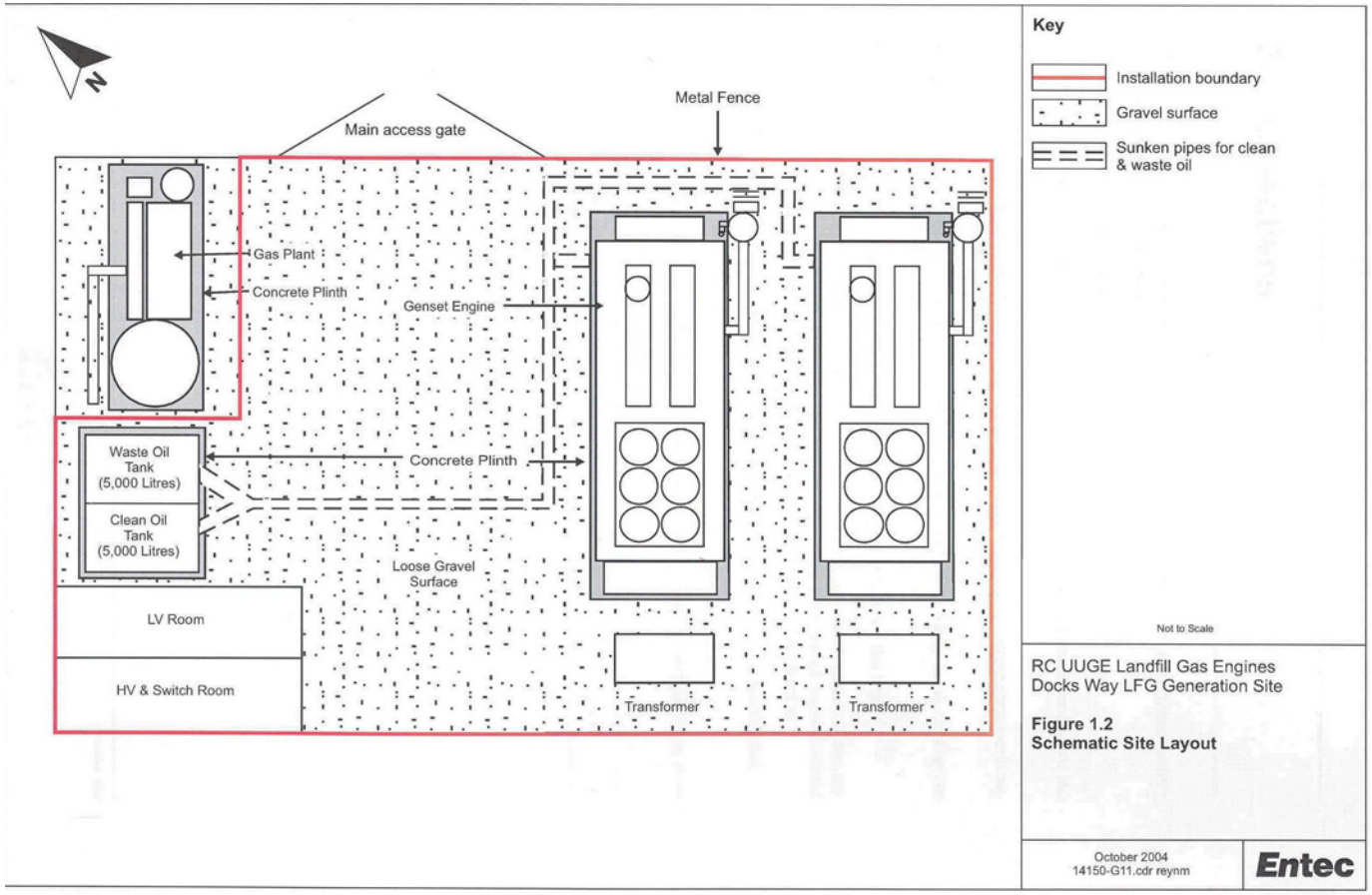
Data required to be recorded and reported by Condition 4.1.3. The data should be assessed at the frequency given and reported annually to the Agency.

Data required to be recorded and reported by Condition 2.7.1.

Energy Imported (MWh)	Energy Exported (MWh)	Energy Used on Site (MWh)	Site Efficiency (%)

Table S4.2: Performance parameters			
Parameter		Frequency of assessment	Performance indicator
Potable water use		Annually	m^3/t
Non potable water use		Annually	m^3/t

Schedule 5 - Site Plan A



END OF PERMIT