GLAN LLYN DEVELOPMENT SITE
LLANWERN
NEWPORT

CELTIC ENGLOBE WASTEWATER TREATMENT PLANT

OPERATING TECHNIQUES & MANAGEMENT SYSTEM

DECEMBER 2021

R1815/21/5129/OT

CONTENTS

1.0 INTRODUCTION

This report is to be read in combination with the attached Environmental Permit application.

Celtic have been commissioned by St Modwen to undertake water treatment works within the former Llanwern steelworks, which is currently undergoing development works. The area which the treatment system occupies is set within an area of largely vacant land near the southern boundary of the development site (as shown on drawing D1815/5129/A1). Residential properties are located approximately 850 m to the west, whereas an Amazon distribution warehouse lies 450m to the east. The Gwent Levels SSSI is located approximately 250 m to the south of the site and the Severn Estuary is located approximately 4 km to the south of the site. A railway line is located to the north of the site.

The development site is drained by a network of surface water ditches which discharge to the adjacent Tata Steel site via the Main East West Ditch (MEWD). An agreement has been reached between St Modwen and Tata Steel to allow this discharge to continue during the Glan Llyn site development works, on the basis that the surface water is treated to standard acceptable to Tata Steel. This water is subsequently discharged to the Severn Estuary under an Environmental Permit held by Tata Steel.

Celtic were commissioned to install, commission and operate a water treatment system to treat surface water and potential groundwater exiting the site via Drain 4, which ultimately discharges to the Tata Steel effluent treatment plant. The water is pumped from a pre-treatment lagoon, through the treatment system, prior to discharge to the Drain 4 outfall. The treatment works carried out by Celtic will therefore result in improvement in the quality of water exiting the site.

The water treatment system has been fully operational since February 2021. These works are currently permitted under deployment of Celtic's Mobile Plant Licence, under deployment reference PAN-011383.

2.0 SPECIFIED ACTIVITIES TO BE CARRIED OUT AT THE SITE

2.1 SUITABILITY OF SPECIFIED TECHNOLOGIES

Celtic propose to continue operation of a water treatment system to treat influent water containing suspended solids, organic and inorganic dissolved phase contaminants to concentrations as agreed with the recipient of the effluent, Tata Steel. The system will treat the water via the following processes as standard:

- Settlement of suspended solids via a baffled settlement tank;
- Filtration of suspended solids through sand filters and Granular Activated Carbon (GAC) vessels;
- Sorption of dissolved phase hydrocarbons through GAC vessels; and
- Removal of ionic and metals species via zeolite filter media.

Based on extensive surface water monitoring carried out by the client's consultant, the influent contaminant loading is expected to be low; however, Celtic have designed the system to be flexible

and robust, therefore the system also has the following capabilities, should additional treatment processes be required:

- pH adjustment through flow-proportional acid/alkali dosing, should influent pH fall outside of the required range;
- Precipitation of metals species via pH adjustment, coagulation and settlement, in the event of high dissolved metals concentrations in influent water;
- Removal of dissolved metals species through ion-exchange resin.

Non-aqueous phase liquids (NAPL) are not expected to enter the system, however, the system also incorporates oil-water separation through gravity separation, with IBCs available for storage of any recovered NAPL.

The system will be equipped with in-situ sensors to continuously monitor pH, electrical conductivity and turbidity in effluent, with the ability to automatically react to changes in these parameters indicating potential exceedance of agreed criteria, by ceasing discharge and diverting flows to additional treatment (as described above), as required. Volumes discharge to sewer is recorded via a totalising water meter with analogue display and digital recording via the control panel.

The system, to be housed within a bund of 110% capacity, will be fully automated with multiple safety devices, including tank high levels sensors, bund high level sensors and pressure sensors. All information will be fed to a central Programmable Logic Controller (PLC), which will be programmed to automatically detect and react appropriately to any detected issue. Remote system access and telemetry will enable notification of Celtic personnel in the event of any fault. These features will enable the system to safely operate 24 hours a day, 7 days per week with minimal supervision and maintenance requirements.

The water treatment system piping and instrumentation diagrams are presented in Drawings D1815/5129/A3-A5

2.2 USE OF BEST AVAILABLE TECHNIQUES (BAT)

Celtic's wastewater treatment plant has been designed in cognisance of Best Available Techniques (BAT) as detailed within the EA guidance document 'Recovery and Disposal of Hazardous and Non-Hazardous Waste' (Sector Guidance Note IPPC S5.06), as applicable, specifically guidance associated with:

- Settlement (by gravity);
- Carbon adsorption;

Specific details of Celtic's wastewater treatment plant design and operational management are provided within Celtic's Design and Execution Report and treatment system Operational and Maintenance Manual, the table of contents of which are provided in Appendix C. Details within the reports are commercially confidential, however, copies not to be published on the Public Register can be provided to NRW, on request.

Details of plant components and layout are provided within drawings D1815/5129/A3-A6.

3.0 RESIDUAL MATERIALS / WASTE

The water treatment system has been over-designed to ensure it is capable of treating influent water of varying quality including water of significantly worse quality than that expected from previous sampling and chemical analysis carried out by the client's consultant. The system is also designed to automatically cease discharge should in-situ sensors detect levels indicating degradation of effluent quality, with the automatic redirection to additional treatment. As such, we do not expect to receive any water of quality that cannot be treated by the proposed system. Residual wastes which cannot be treated on site will, however, be generated by the treatment process. These include:

- Spent activated carbon (GAC);
- Spent ion-exchange media;
- Settled suspended solids / precipitates; and
- Possible Non-aqueous Phase Liquids (NAPL).

Activated carbon and ion-exchange media are held within steel pressure vessels on site, and the media becomes gradually spent through the course of treatment, ultimately requiring replenishment / exchange with fresh media. Both these media will be sent for off-site to suitably licenced facilities for regeneration and re-use.

Suspended solids / precipitates will accumulate at the bottom of settlement tanks during treatment, eventually requiring removal. The solids will be chemically characterised prior to removal, either for reuse or disposal off-site at a suitably licenced facility.

Any NAPL separated from the oil-water separator will be decanted into an IBC stored within the water treatment system bund, and will be chemically characterised prior to off-site removal for reuse or disposal at a suitably licenced facility.

Waste management is described in detail in the Site Waste Management Plan, presented in Appendix D.

4.0 STORAGE OF PROCESS WASTES GENERATED AND QUARANTINE

All wastes generated as part of the treatment process will accumulate gradually within the elements of the treatment system (settlement tanks / pressure vessels) within the system bund, prior to their eventual emptying as described in the above section. As such, no additional waste storage facilities or areas for quarantine are required on site.

As this wastewater treatment plant receives no off-site inputs, no storage areas are required for inputs, as all input wastewater is derived from the existing site surface water network.

5.0 WASTE RECEPTION AND ACCEPTANCE

The wastewater being treated by Celtic's wastewater treatment plant is derived from a network of surface water ditches which drain the site into a private sewer network. Groundwater which arises from remediation of land undertaken by other third parties within the wider St. Modwen development

may be pumped into the network of surface water ditches. The liquid that is therefore treated by the Celtic Technologies Limited activities may be a mixture of surface water and groundwater. No external / off-site waste will be treated at the plant. Celtic have designed the plant to be capable of treating a variety of contaminants based upon:

- Three years of surface water monitoring (chemical analysis) data of the drainage ditch network in a dataset including over 500 samples.
- substances with targets set within the drainage agreement between St Modwen (site owner) and Tata Steel (party ultimately receiving the discharge).

Influent water is sourced from the pre-treatment lagoon, which is to be monitored both visually and via chemical analysis during weekly monitoring visits. Celtic's plant has the ability to cease pumping from the pre-treatment lagoon, should this be necessary.

In-situ sensors monitoring turbidity, pH and electrical conductivity in real time automatically detect water quality entering and exiting the system, providing the capability to automatically cease pumping if required.

Celtic's wastewater treatment plant has consistently achieved the discharge criteria during the seven months of operation under Mobile Plant deployment and it is not anticipated that any influent waters encountered will be unable to be treated to the required standards, as stipulated under the private drainage agreement.

5.1 PRE-ACCEPTANCE CRITERIA

The surface water network, which forms the input to the system, was characterised by an extensive sampling exercise by St Modwen's consultant, Atkins, prior to deployment of the wastewater treatment plant to the site. This information was used in the water treatment plant design, to ensure that the plant was capable of treating the maximum concentrations of contaminants of concern identified within the dataset. The contaminants of concern are defined within the drainage agreement between St Modwen and Tata Steel and are indicated in Table 1. As no other waste inputs from external sources are to be treated, no further pre-acceptance criteria are required.

Table 1 - Discharge Criteria

Parameter	Upper Limit After Treatment
Petroleum hydrocarbons	0.2 mg/l
pH	pH 6-10
Total suspended solids	50 mg/l
Dissolved Iron	5 mg/l
Total Chromium	0.1 mg/l
Dissolved Nickel	0.1 mg/l
Zinc	0.5 mg/l
Copper	0.1 mg/l
Lead	0.5 mg/l
Arsenic	0.01 mg/l

Cadmium	0.05 mg/l
Mercury	0.05 mg/l

5.2 ACCEPTANCE CRITERIA

Given the extensive characterisation of the site's surface water and associated system design, as described in Section 5.1, the default assumption is that the wastewater entering the system will be acceptable for treatment; however, the influent water quality is monitored as follows:

- Chemical analysis of the influent water is taken weekly;
- A visual check on the surface water quality within the pre-treatment lagoon (draw point) is carried out weekly;
- Continuous monitoring of pH, turbidity and electrical conductivity of water within the treatment system and at the discharge point.

All samples collected will be sent to a UKAS accredited laboratory.

The above monitoring, in addition to discharge monitoring, is summarised in Table 2 below.

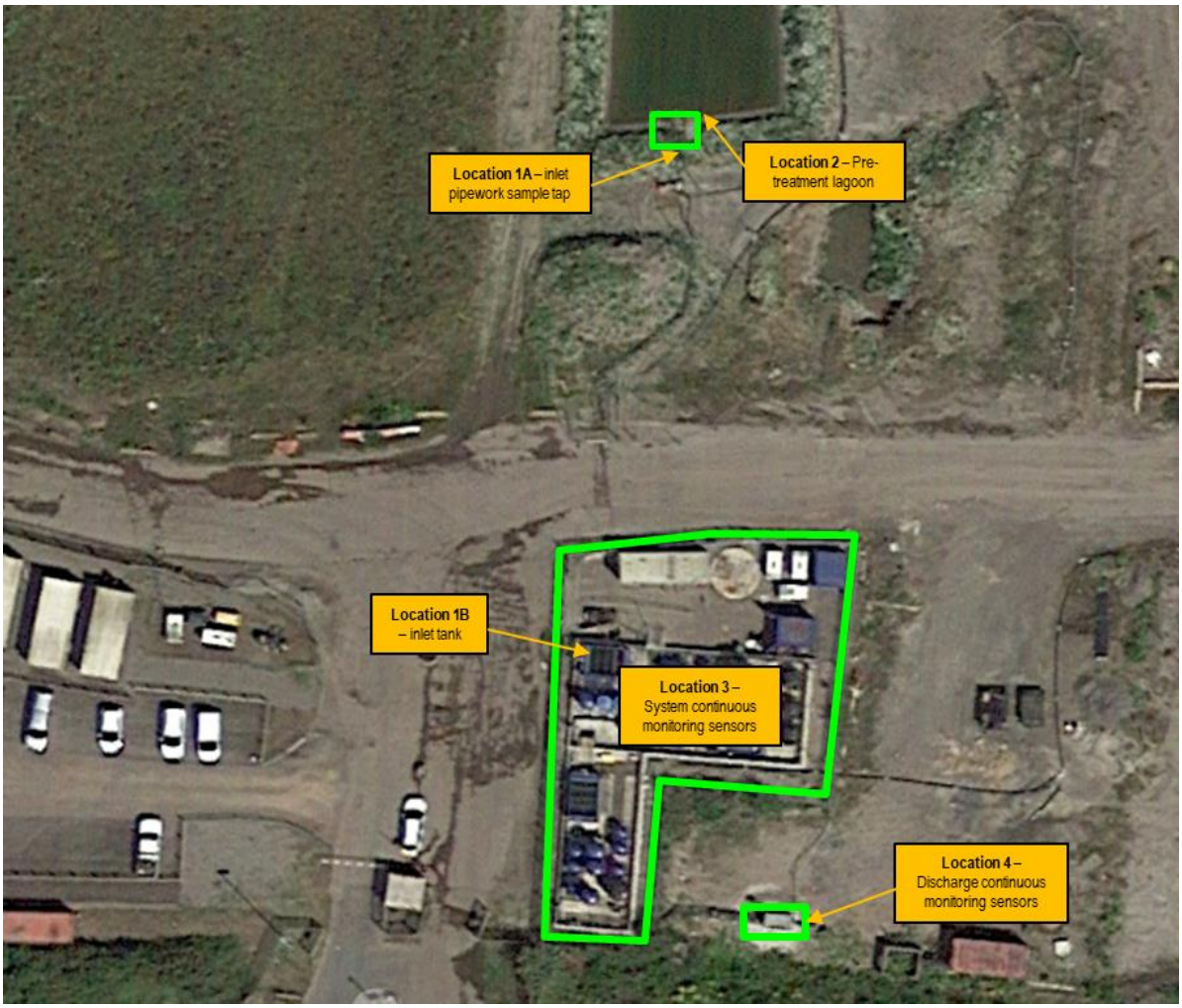
Table 2 – Influent and Effluent Water Quality Monitoring

Monitoring	Location#	Criteria	Threshold /Action	Frequency
Chemical analysis of system influent water	Location 1 System inlet pipework sample tap / inlet tank	Discharge analysis suite (as per Table 1)	N/A – for information only	Weekly
Visual check of Pre-treatment lagoon	Location 2 Pre-treatment lagoon	Visual assessment of water quality, to include: 1) Presence of NAPL 2) Any unusual discoloration	1) If there is evidence of NAPL greater than a sheen, pumping will be ceased* 2) If significant discoloration other than brown or turquoise is observed, pumping will be ceased*	Weekly
Continuous Monitoring	Location 3 Water entering the system	1) Turbidity 2) pH 3) Electrical conductivity	1) N/A – for information only 2) Pumping automatically ceases if pH is outside of range of pH 6-12.5 3) N/A – for information only	Continuous
Continuous Monitoring	Location 4 Discharge tank	1) Turbidity 2) pH 3) Electrical conductivity	1) N/A – for information only 2) Pumping automatically ceases if pH is outside of range of pH 6-10 3) N/A – for information only	Continuous

Monitoring	Location#	Criteria	Threshold /Action	Frequency
Chemical analysis of treated effluent	Location 4 Discharge tank	Discharge analysis suite (as per Table 1)	Exceedances of criteria (as per Table 1) lead to remote cessation of discharge pump	Weekly

*Following cessation of pumping, chemical analysis of a sample from the pre-treatment lagoon will be taken and St Modwen will be notified to prompt investigation of the source of NAPL / discoloration.
Please see Figure 1 for locations

Figure 1 - Influent and Effluent Water Quality Monitoring Locations



As indicated in Table 2, the criteria for rejection are:

1. Presence of NAPL in the pre-treatment lagoon;
2. Discoloration, other than brown or turquoise, in the pre-treatment lagoon;
3. pH outside of range of 6-12.5.

In the event of rejection based on any of the above criteria, the system would cease pumping and the Client would be notified.

In the event of presence of NAPL, the client would be prompted to investigate the source of the NAPL and removal of the NAPL via skimming / pumping and off-site disposal would have to be carried out prior to recommencement of pumping of water to the wastewater treatment plant.

Should unusual discoloration be observed (not brown or turquoise), the client would be prompted to investigate the source of the discoloration and information regarding its origins / chemical analysis would be required to determine whether suitable for treatment through the wastewater treatment system.

If the pH is outside of the range of 6-12.5, the flow rate of the plant will we reduced to ensure pH buffering is adequate to meet the discharge criteria, prior to recommencement of pumping to the wastewater treatment plant.

Any such event would be recorded in the site diary and would also be logged as an environmental hazard spot via Celtic's incident reporting system.

5.3 Waste Storage

As the wastewater treatment plant receives no off-site inputs, no storage areas are required for inputs, as all input wastewater is derived from the existing site surface water network. The storage capacity therefore comprises the effective working capacity of tanks within the treatment system which as a minimum comprises 25 m^3.

All wastes are stored securely within the system, which is housed within a bund of 110% capacity, is fully automated with multiple safety devices, including tank high levels sensors, bund high level sensors and pressure sensors.

Regular inspection and maintenance is carried out, ensuring any defects are identified and rectified accordingly. Further details are provided in Section 9.0 of this document.

6.0 MANAGEMENT SUPERVISION

6.1 SITE SUPERVISION PLAN FOR TECHNICALLY COMPETENT MANAGER

The Technically Competent Manager (TCM) will attend site daily during the commissioning of the system and monthly thereafter. The TCM will inspect the setup of the treatment facilities on site prior to commencement of the treatment works. The TCM will spend the remaining time on inspection audits of the treatment process during the remediation. The majority of audits will be carried out during the active phase of works. The WAMITAB certificate for the TCM can be found in Appendix 1.

The treatment system is designed to run 24 hours a day, 7 days per week with minimal supervision required. Monitoring and maintenance activities will be carried out by Celtic engineers during normal site working hours.

As part of the maintenance programme all level switches, pumps and emergency cut-off switches are manually triggered weekly to ensure they are in good working order and are fit for use. All water treatment systems will be secured with fencing to prevent unauthorised access.

7.0 POLLUTION CONTROL

Celtic have undertaken background monitoring and have designed a monitoring programme to be implemented during the site works. Background levels, Occupational Exposure Limits (OEL's) and risk derived values will form the basis for site specific trigger values.

Monitoring records will include:

- determinants monitored;
- details of measurements (date, time, frequency, location);
- results;
- interpretation and review of results with trigger values;
- validation of accuracy; and

Should monitoring exceed the site-specific trigger values, control measures specified in the site-specific contingency method statement will be implemented. This may include the physical covering of tanks, ventilation, filtering or active extraction.

The contingency plan is designed and operated to:

- prevent hazard to human life, property or the environment;
- control and minimise any immediate risks of pollution of the environment;
- ensure the immediate initiation of necessary investigations and management; and
- actions to identify, mitigate and remediate the causes of the exceedance.

7.1 Monitoring and Control of Ambient Gases, Vapours and Aerosols

Treatment plant under the control of Celtic is highly unlikely to give rise to emissions of vapours and aerosols during normal operation. In open areas of the site, normal air circulation will prevent the accumulation of semi volatile and volatile organic carbons (SVOCs, VOCs and vapours).

Prior to and during the initial active works phase, Celtic staff will undertake daily monitoring of volatile organic compounds (VOCs) using a Photo Ionisation Detector (PID) at monitoring points around the active works area when the site is manned and the system is operational. There will be 1 static monitoring point located at the water treatment system and one downwind of the water treatment system which will move dependant on wind direction. The PID will be operated, calibrated and maintained in accordance with the manufacturer's instructions. Measurements will be recorded in the appropriate monitoring pro forma. Concentrations will be compared with OELs for any volatile compounds identified from laboratory VOC characterisation.

Representative samples of gases, vapours and aerosols will be taken within the operational area if routine PID monitoring identifies a significant hazard. If such sampling is required, passive samples will be taken using desorption tubes at each of the monitoring stations.

Should VOCs exceed the trigger level in the treatment area (RPE at 1 ppm 8 hour TWA and Stop works at 10 ppm 8 hour TWA); the action plan will be implemented. This will include RPE at the lower trigger level, and evacuate the operational area if the upper trigger level is reached. Only resume

work when VOC concentrations have dropped below the upper trigger level or contingency control measures are in place. Control measures may include increased ventilation, filtering or active extraction.

7.2 Dust, Fibres and Particulates

Celtic are only providing water treatment services at the site, which do not generate dust, fibres and particulates.

7.3 Odour

Odours will be monitored at each O&M visit within and at the perimeter of the active works area and records will be kept in the site diary. It is unlikely but possible that during the treatment of water odours may be emitted. If any such odours become an issue on-site, contingency plans will be put in place to reduce the odour.

Methods of reducing odours include;

- Pre-assessing the wind direction and strength prior to operations.
- Pre-assessing the time of maintenance prior to operations.

If the odour becomes too high, operations will be ceased and the treatment area should be doused with industrial deodoriser spray designed for industrial operation use.

The level of odour will be assessed based on the following criteria:

Table 2 – Odour Assessment

Level of Odour Observation	Actions
No to very faint odour	No action
Occasional faint to moderate odour	Increase monitoring frequency
Frequent moderate to strong odour	Implement mitigation actions

7.4 Control of Noise

All remedial processes will be carried out utilising low intensity works. Any noise generating activities will be carried out during normal site operational hours, 8:00 am until 6:00 pm Monday to Friday. The treatment system comprises very few moving parts, with noise generation expected to be negligible. However, any noise emitting equipment in excess of 75 DbA 1m from source will be within a housing to minimise noise emission. On-site workers will be provided with suitable PPE. Monitoring will be undertaken on a regular basis using a hand-held calibrated sound level meter.

The system is designed to be low in noise emissions and not to exceed noise levels within or outside the working area.

7.5 Control of Extracted Water

The pumped water will be passed through settlement tanks, sand filters and granular activated carbon (GAC) prior to being discharged to the MEWD. Sample points would be located both before and after all vessels to allow for adequate sampling, as required. Discharge samples from the system will be collected twice per week and from intermediate sampling points, as required.

7.6 Fuel Storage

Storage of up to 2,000 litres of diesel will be required for the generator as part of the works, noting that any fuel will be stored within a bunded fuel tank. A spill kit will also be available adjacent to stored fuel throughout the treatment works.

7.7 Control of Litter

The nature of the work does not pose a risk of litter migration outside the site boundary. The site will be operated in a safe, tidy and hygienic manner. Operatives will be required to dispose of any litter generated on site during daily routine tasks where safe to do so. A skip will be used for any large items of general waste.

The site diary will record that monitoring checks have been carried out daily to confirm points above.

8.0 EMISSIONS MONITORING PLAN

Prior to works commencing on site, a baseline environmental monitoring survey was completed to assess the current environmental conditions within the area of the site. This survey was completed prior to works commencing to ensure representative data is collected.
The survey included assessments of pre-work dust, noise, vapour and odour levels. This data will be retained on site and used to assess the environmental impact of the remediation works as they progress. This baseline data will be available for inspection by any concerned party, including NRW.

It should be noted that Celtic's works are being undertaken on an active development site and therefore significant background interference from third party activities may affect any monitoring results collected by Celtic. Any such emissions likely to have been generated by a third party during Celtic monitoring events will be commented upon in the monitoring sheet.

The proposed monitoring points are shown below in Figure 2, where (F) denotes the fixed monitoring location and (W) denotes a downwind monitoring location, subject to wind direction.

Figure 2 – Monitoring Locations

Monitoring will be carried out at these locations from the start of the works until the works are complete. The monitoring will comprise, noise via hand held noise meters, odour by qualitative assessment and vapour via Photo Ionisation Detector (PID). These are summarised in Table 3.

Table 3 – Emissions Monitoring Plan

	Ambient Vapour / Odour	Ambient Noise	Treated Water
Sampling Method(s)	Photo Ionisation Detector (PID) / Qualitative odour assessment	Decibel Noise Meter	Laboratory Analysis / in-situ monitoring
Trigger Level	RPE - 1 ppm VOC (8 hour TWA) Stop Work – 10 ppm VOC (8 hour TWA) NB: This is based on most conservative TWA (8 hour) for the COCs (benzene).	Lower exposure action values are: 80 dB (A) and 135 dB (C) Upper exposure action values are: 85 dB (A) and 137 dB (C) Exposure limit values are: 87 dB (A) and 140 dB (C) 5 dB (5 min TWA) above background monitoring data at site perimeter monitoring locations.	Subject to agreed discharge criteria
Baseline (All Locations)	2 rounds	2 rounds	Not applicable
Active Works Phase	Daily when system is manned and operational	Daily when system is manned and operational	Continuous in-situ monitoring of pH, EC and turbidity Weekly sampling
Post Works	2 rounds	2 rounds	Not Applicable

*The most toxic compound/marker recorded at the site is benzene and we will conservatively assume this represents 100% of the total vapour emissions for Total VOCs recorded during monitoring. If VOCs are detected at or above 1ppm (15 min TWA), representative samples/monitoring will be undertaken to identify individual compounds and appropriate actions taken as necessary.

8.1 Contingency Control Measures

In the event that the monitoring plan trigger levels are reached or additional control measures are deemed necessary by the wider project team, additional contingency control measures will be implemented. These are detailed below.

In the unlikely event of unacceptable odour and/or vapour levels, open top tanks will be covered and if necessary, active extraction will be carried out with routing of extracted air to appropriate air treatment. In addition, a de-odouriser system will be considered.

In the unlikely event of unacceptable noise levels, working methods and plant will be reviewed.
In addition, acoustic barriers on temporary fence panels can be deployed around noise producing items such as the generator.

Should the effluent quality deteriorate, as indicated by continuous in-situ monitoring or chemical analysis, the discharge will be ceased and investigation will be carried out.

9.0 RECORD KEEPING – COMMISSIONING, OPERATING AND MAINTENANCE

Prior to operation, valid maintenance certificates will be required for all plant and equipment, together with valid calibration certificates for appropriate items (monitoring instruments etc). During the works a weekly maintenance checklist, including checks on all applicable system components, will be carried out by a Celtic engineer.

On completion of the setting up of the treatment working area, the Technically Competent Manager (TCM) will inspect the setup of the treatment facilities on site prior to commencement of the treatment works. Prior to the commencement of the treatment works, to commission the works, the TCM will complete Celtic's Mobile Treatment Licence/Environmental Permit Compliance form Pre Operational Check and also check that the site meets the provisions of Celtic's Health, Safety and Environmental Integrated Management System by using Celtic's Site Works Inspection Audit Form.

During the works, a diary will be maintained by the site manager, together with details of site staff. Monitoring recorded as part of the environmental monitoring plan will be recorded and retained electronically for the duration of the works. The site manager will check the environmental monitoring data on a daily basis of any exceedances of trigger levels and the monitoring technicians will have a brief to inform the site manager for any exceedances for immediate management/contingency action. The site will also self-audit on a monthly basis using Celtic's Site Works Audit form in Appendix B to ensure compliance with Celtic's Health, Safety and Environmental Plan and IMS.

The pro-forma for the environmental monitoring that will be undertaken at the site can be found in Appendix A.

Routine maintenance of the plant will be carried out by suitably trained and experienced Celtic operators. Specific activities such as lifting operations and electrical maintenance will be managed through a Permit to Work system and may require third party contractors. Training records of all Celtic staff involved in system operation and maintenance are held centrally and can be made available to NRW on request.

All Celtic staff involved with the operation of the wastewater treatment plant will have electronic access to the permit and will be made aware of all associated operational and reporting requirements.

10.0 ENERGY CONSUMPTION

No mains electrical supply is currently available for the wastewater treatment plant, which is therefore powered by generator. This generator consumes approximately 700 litres of diesel per week. The generator is equipped with an auto start/stop feature to enable automated shutdown in event of plant shutdown, therefore preventing unnecessary fuel consumption. The generator can also be remotely started.

11.0 RAW MATERIALS

Raw materials required for the operation of the wastewater treatment plant are limited to:

- Dosing chemicals (hydrochloric acid and coagulant)
- Activated carbon
- Ion-exchange media

The usage of the above materials will vary depending on treatment requirements, however it is expected that less than 10 tonnes of each of the above will be required per annum.

Water is not consumed as part of the wastewater treatment process.

12.0 ACCIDENTS AND INCIDENTS

12.1 Risk Reduction Through Design

The risk of accidents and incidents are primarily controlled through system design.

The system, to be housed within a bund of 110% capacity, will be fully automated with multiple safety devices, including tank high levels sensors, bund high level sensors and pressure sensors. All information will be fed to a central Programmable Logic Controller (PLC), which will be programmed to automatically detect and react appropriately to any detected issue. Remote system access and telemetry will enable notification of Celtic personnel in the event of any fault. These features will enable the system to safely operate 24 hours a day, 7 days per week with minimal supervision and maintenance requirements.

A copy of the system design risk assessment is held on site and can be provided on request.

12.2 Risk Reduction Through Management

The following management measures will be in place to reduce the risk of an accident / incident as low as reasonably practicable:

- Appropriate spill kits will be located adjacent to generators and dosing chemicals.
- Fire extinguishers will be located at appropriate locations.
- A site Hazard and Accident Management Plan (D1815/5025/Haz, Appendix E) will be displayed on site and will include:
    - Emergency contact details;
    - Locations of spill kits and fire extinguishers;
    - Location of emergency shower and eye wash station;
    - Location of pedestrian escape routes and muster point;

Fire and spill drills will also be conducted every 6 months and will be recorded within the site diary / activity briefing.

Celtic Englobe implement an internal incident reporting system as part of our IMS, which allows reporting of H&S and environmental hazard spots, near misses and incidents. Any such events will be reported accordingly, and in the unlikely event of a pollution incident, NRW will be notified accordingly.

Internal auditing of the site will also be carried out by our Technically Competent Manager, as described in Section 6.1 of this document.

12.3 Non-compliance

Any identified permit non-compliances would be reported via Celtic's IMS incident reporting system, which has a category for such incidents. Any non-compliance report would include details of the nature of the non-compliance, route cause, actions required to address the non-compliance and the person(s) appointed to rectify the issue. All Celtic staff will have visibility of any such incident raised and will be automatically alerted via email.

12.4 Complaints

In the event of receipt of a valid complaint, this would similarly be logged via Celtic's IMS incident reporting system. Any report of a complaint would include details of the nature of the complaint, route cause, actions required to address it, and the person(s) appointed to rectify the issue.

13.0 SITE SECURITY

The wider development site is secured by a perimeter fence with controlled double gate access points. Celtic's wastewater treatment plant is further secured by a palisade fenced compound with lockable access gates.

24-hour manned site security is implemented for the wider development site and Celtic's wastewater plant is included within the regular patrol.

14.0 CLOSURE

It is considered that the likelihood of causing pollution through operation of the wastewater treatment plant is low given:

- No waste will be imported to site as part of its operation;
- Wastes generated as part of the treatment process accumulate gradually within enclosed pressure vessels and at the base of tanks;
- Influent water is largely surface water with low potential to cause pollution;
- The treatment system is contained within a bund of 110% capacity of all treatment system components;
- Each tank is equipped with a high-level sensor to prevent overtopping and the bund is similarly equipped with dual high level sensors;
- Operational and management controls, as described within this document, significantly mitigate the risk of spillage;
- The wastewater treatment system comprises mobile plant with no associated new foundations or ground disturbance associated with its installation.

The Site Condition Report (R1815/21/5129/SCR) provided in this permit application details baseline conditions and a photographic record of the site prior to Celtic's occupation and can be used for reference upon closure.

APPENDICES

APPENDIX A

MONITORING PROFORMAS

APPENDIX B

INSPECTION AND AUDIT FORMS

APPENDIX C

RELATED REPORTS TABLE OF CONTENTS

APPENDIX D

SITE WASTE MANAGEMENT PLAN

APPENDIX E

SITE HAZARD AND ACCIDENT MANAGEMENT PLAN