Trecatti Landfill Site

Multipurpose Waste Treatment and Remediation Pad

Environmental Permit Variation and Standard Rule Application

Non Technical Summary

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1.0 INTRODUCTION

Biffa Waste Services Limited (Biffa) has retained SLR Consulting Limited (SLR) to prepare an application to:-

1. vary Environmental Permit reference EPR/RP3733PC for Trecatti Landfill site, Merthyr, Wales under The Environmental Permitting (England and Wales) Regulations 2010 (as amended) Waste Treatment and Remediation Facility; and
2. vary the above Permit to add the Standard Rules Permit SR2012 No 8 to allow for the operation of a Composting Facility on the Multipurpose Pad.

In addition to this Non-Technical Summary, the following documentation is also submitted in support of the application to vary the Environmental Permit:

- Application Forms (Parts A, C1, C2, C3 and F1) and supporting documentation;
- Installation OPRA Spreadsheet;
- Waste Treatment Facility Best available Technique and Operating Techniques Document; and
- Waste Treatment Facility H1 Environmental Risk Assessment (Annex A).

The information contained within this Non-Technical Summary is informed by the Environment Agency's explanatory notes on the Application Form Part C2, which dictates that the Non-Technical Summary should explain clearly what is being applied for, give a summary of the regulated facilities and of the relevant key technical standards and control measures relating to the site.

2.0 OVERVIEW OF DEVELOPMENT

2.1 Site Location & Environmental Site Setting

Trecatti landfill site is located to the immediate north-east of Merthyr Tydfil and approximately 3km west of Rhymney at National Grid Reference SO082077. It is located within an area of historic open-cast coal and ironstone working and lies to the north-west of the Gelligaer and Merthyr Common. The site is immediately surrounded by common land that includes vegetated colliery spoil tips and is used for rough grazing. The nearest residential area is Dowlais Top which lies approximately 200 metres to the north-west of the landfill. Access to the site is from the unclassified Fochriw Road to the east. The main watercourses present in the vicinity are the River Taff and Rhymney River, which flow in a general southerly direction 3.5km west and 2.1km east of the site respectively. A number of tributary drains and streams drain the land immediately surrounding Trecatti Landfill.

The permitted installation includes all areas of the existing and future landfill and site infrastructure in addition to the listed leachate treatment plant and non listed directly associated landfill gas utilisation activity. The following non-listed directly associated activities are also included as part of the permitted installation: discharge of treated leachate to sewer; discharge of surface water drainage to a controlled watercourse; storage of fuel and raw materials, production and storage of waste oils and gas flaring.

Merthyr Tydfil Borough Council commenced landfilling at Trecatti in 1986 and operated the site up until 1992 when the management transferred to Biffa Waste Services Limited. The site was licensed at that time to receive domestic, commercial and industrial wastes including difficult and special wastes. Engineered containment principles were introduced at Trecatti from 1993 in Phase 1 within the north western corner. Subsequent landfilling took place within Phase 2, which then formed the basal containment for Phases 2A, 3A, and 4A. Phase 2A also forms the basal containment for all the remaining Phases to be developed.

Trecatti Landfill has been constructed above the regional groundwater table of the Coal Measures strata and therefore no permanent groundwater management system is required. However, temporary under-liner drainage systems have been installed beneath the Phases developed to date due to the presence of perched groundwater. Leachate accumulating within the site is abstracted and treated at the on-site treatment plant. Landfill gas is collected and pumped to an on-site gas management plant which is capable of producing up to 4MW electricity. Surplus gas is flared off.

The site location is illustrated on Drawing 001 dated July 2015, Site Location Plan.

2.2 Current Permit

The site is currently regulated under Environmental Permit Reference: EPR/RP3733PC, issued 9th March 2005 (and subject to a number of variations, the most recent being variation V008, issued on 27th February 2015)and permits the disposal of up to 625,000t per annum of non hazardous waste and 50,000t per annum of stable and non reactive (asbestos) wastes.

3.0 DESCRIPTION OF PROPOSED ACTIVITIES

This Environmental Permit variation application seeks to add a Multipurpose Waste Treatment and Remediation Pad (MWTRP) to the permitted activities undertaken at the site. The location of the pad in relation to the permitted landfill is shown on Drawing 1, dated July 2015 Environmental Permit Boundary.

The MWTRP layout is detailed in Drawing 002 and will allow the following two distinct waste activities to take place:

1. Waste Treatment Facility (WTF) - treatment and bioremediation of hazardous and non hazardous waste including soils and sludges ; and
2. Green Waste Composting Facility.

The WTF would have a capacity to treat up to 30,000 tonnes (t) of contaminated (classified by Natural Resources Wales (NRW) as "hazardous" waste) soils a year, whilst the composting facility would treat typically 30,000t and up to 75,000 of source segregated green wastes per year in accordance with a standard rules set.

The proposed MWTRP would comprise a single impermeable surfaced pad. The pad will have overall maximum dimensions of around 125m by 82m and orientated in a south east to north west fashion. The northern most part of the pad would be used for the composting of green waste and would be 45m by 70m in footprint (3,250m^2). Adjoining this would be an area used for the bioremediation of contaminated soils or sludges; this area would be 80m in length and between 56m and 82m in width (having a footprint of around 6,000m^2). The two areas would be separated by low level bund. Drawing 005 shows typical conceptual construction and bunding details. These details maybe subject to change upon final design. NRW would be consulted with any such plans prior to construction.

At the southern part of the application site would be the site infrastructure, comprising office/welfare accommodation, car parking, two process water storage tanks (within a bunded enclosure), biofilter, air/water separators with attendant process equipment (blowers, pumps etc, housed within a metal container) and a substation. An area to the west of the pad would be used for processing (shredding/screening) the green waste and compost. Along the western edge of the pad would be an access road (approximately 8.5m in width) which would link with an existing access road within the landfill. Finally, within the proposed facility would be two surface water drainage lagoons: one would be located within the southern part and the other within the north eastern part.

Biffa already operate four similar WTF facilities located at its Skelton Grange (Leeds), Meece (Staffordshire),Westmill (Hertfordshire) and Cottonmount (Northern Ireland) landfill sites. The WTF at Biffa's Risley Landfill site was the first of the bioremediation facilities to be operated by Biffa but has now closed along with the landfill site.

3.1 WTF: Bioremediation Process

Full details of the treatment and bioremediation process are provided within the Best Available Techniques and Operating Techniques (BATOT) document, a summary is given below:

Part of the WTF process comprises the biological treatment of contaminated soils or sludges to produce suitable materials for use in restoration/reclamation works (either on site or for

projects in the South Wales region) and also as a daily cover on the landfill site. This would be undertaken using technology provided by Biffa's technology partner, Celtic EnGlobe. The materials to be treated by the WTF process would be too contaminated to allow for their reuse without being cleaned and would otherwise require to be directly landfilled at suitable, specialist landfill sites elsewhere in Wales, or indeed England. Whilst it is possible that some of the treated soil could be utilised within the boundary of the landfill site for restoration works the majority would be exported to the local market. The WTF would therefore contribute towards producing material to ensure that the landfill site and other reclamation projects are restored to the highest standards.

Figure 3-1 Aerial view of the WTF at Biffa's Risley Landfill Site

The material to be treated by biological means comprises soils or sludges contaminated with organic compounds (such as hydrocarbons), which are considered as waste and which, in some cases dependent on the level of contamination, may be considered as "*Hazardous Waste*" as defined by the Hazardous Waste (England and Wales) Regulations 2005. The WTF would only accept wastes which have been assessed to ensure that they are amenable to treatment in terms of both their chemical and physical compositions. Most incoming wastes would be classified as hazardous wastes; however, a small proportion of incoming wastes would be similar but at levels slightly below the hazardous waste thresholds and hence would be classed as non-hazardous waste. Biological treatment simply accelerates a natural phenomenon, accomplishing in a few months what would require nature decades to achieve. The process utilises Celtic EnGlobe's proprietary technology and operates through means of moisture control, addition of suitable materials to the soil, use of biopiles and forced air extraction to encourage micro-organism growth and breakdown of hydrocarbons

into by-products such as carbon dioxide and water vapour. The end product is an uncontaminated material that is suitable for use in restoration of the landfill.

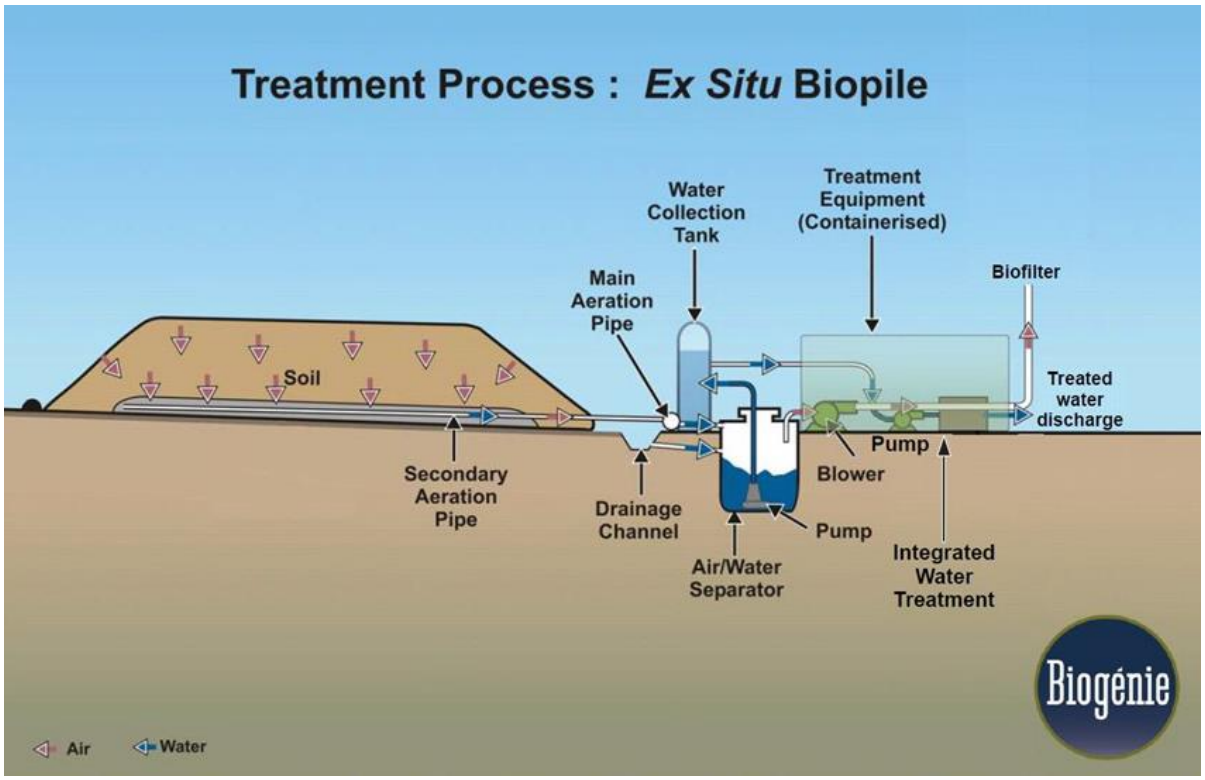
In summary, the operation of the WTF will comprise the following key elements which are described in more detail in the BATOT document;

1. Waste reception;
2. Biological treatment of soil or sludges at the biopiles using forced air extraction and or mechanical turning;
3. Process water tanks (serve biopiles);
4. Air extraction system (serve biopiles);
5. Air water separators (serve biopiles);
6. Humidifying chamber (serve biopiles);
7. Biofilter (serve biopiles); and
8. Ancillary infrastructure

The development proposal would not prejudice the approved restoration scheme for the landfill site and the MWTRP would be removed to allow restoration of the site in line with the approved restoration scheme. In this respect, the proposals are temporary in nature, being linked to the life of the landfill operations.

Figure 3-1 above illustrates the general arrangement of a WTF, being an aerial photograph of the applicants' WTF at Risley Landfill site, Warrington (now closed).

Figure 3-2
Bioremediation process



The biopile treatment process will use biological remediation over a period of time to reduce contaminating components within the soils to concentrations where the soil can be reused.

Soils will typically be treated over an 8-16 week period, with the material being turned infrequently, typically once every 8 weeks. The bioremediation plant will operate continuously. The facility will be limited to accepting wastes that can be treated to a point where they can be used as restoration soil on the landfill cap or, if required, as daily intermediate cover.

The biopile process includes the control of all gaseous and aqueous emissions. The control of emissions is described in the supporting application documentation. Biopile is a North American term to describe the treatment of soil in a stockpile. A schematic of the bioremediation process is shown below.

3.2 Green Waste Composting Process Description

In addition to accepting contaminated wastes for bioremediation, the MWTRP may also accept source segregated green wastes. This waste would typically be from municipal sources collected by local authorities, either through kerbside collections or from Household Waste Recycling Centres. This waste stream would not be classed as hazardous. This aspect of the proposed development is speculative as it is dependent on the applicant securing suitable contracts for the management of green waste collected by the local authorities.

It is proposed that Standard Rules Permit SR2012 No8 be applied for within the remit of this Permit variation to allow Green Waste Composting Operations to be carried out on site as per the pre-application discussions held with NRW in April 2015. The site will accept, in accordance with the SRP, more than 75 tonnes per day of green waste composting, and less that 75,000tpa. It is anticipated that the site may accept approximately 30,000tpa in the initial stages.

An open air composting facility would be developed adjacent to the area used for the bioremediation of soils, for the treatment and processing of source segregated green waste.

The composting operations would be undertaken on an impermeable surfaced pad measuring approximately 45m by 70m (3,250m^2). The composting area of the pad would be surrounded by a low level bund which would effectively create a sealed system to prevent the escape of material and leachate.

It is proposed that the composting facility would be able to accept and process approximately 30,000 tonnes of green waste per annum. The resultant compost would be taken for sale off site and also used as a restoration material in the restoration of the landfill as and when needed.

The process of producing compost from green waste at the site would be divided into two stages, screening and shredding and composting.

<u>Stage 1 – Shredding & Initial Screening</u>

Vehicles transporting the collected green waste would deposit the waste in the reception area on the western side of the composting pad. The deposited material would ‘bulked up’ until sufficient waste has been accumulated for shredding to take place. Green waste generation is a seasonal activity and so increases in volume during the summer months may occur. The ‘bulked up' waste would be placed into a mobile shredder with a loading shovel and shredded. The shredding of the green waste helps to balance the carbon and nitrogen in the material to be composted, which is essential for effective composting. Woody material

would be hand fed into a 4 inch chipper. This would allow the opportunity for a degree of sorting and the removal of unwanted materials such as plastics etc. The chipped material would be mixed with the segregated and shredded green waste in preparation for composting and stored in a stockpile on the composting pad.

Stage 2 – Composting & Final Screening

The shredded green waste would be transported from the stockpiles to the composting area by a front end loading shovel or dump truck and composted in conventional open windrows up to 3m in height and 4m in width. The use of conventional windrows is considered to be appropriate because the material to be composted is solely green waste.

The composting process takes between 10 to 16 weeks dependent upon the required quality of the final compost. In order to control the composting process, the material in the windrows would be turned weekly in the first three weeks and two-weekly thereafter, in order to maintain temperature, moisture content and oxygen availability. This would be carried out using the loading shovel or a dedicated windrow turner. This maintenance of aerobic conditions would ensure that no 'foul' odours such as those associated with anaerobic conditions are prevalent. In order to ensure efficient composting, moisture content will be maintained above 50%. During periods of dry weather, it would be necessary to re-wet the green waste immediately after shredding in order for the composting process to operate efficiently.

To prevent pollution of surface or groundwater, the drainage from the proposed composting pad would be collected and directed to lagoon 2. The water would then be re-circulated into the windrows to maintain moisture content.

During the composting process the majority of the green waste would be degraded, although larger, woody items would not degrade so quickly. This provides an opportunity to remove such items and inorganic contaminants from the compost by further screening. This screening would be carried out periodically using a mobile screen. The oversize material extracted from this screening process would either be re-introduced into new windrows or, if too contaminated to re-use, be disposed of within the landfill. The resultant compost would then be stockpiled ready for sale.

3.2.1 Composting Permitted Activities

The waste management operations to be carried out associated with the Green Waste Composting Operations at the site as specified in Annex I and Annex II of the Waste Framework Directive 2008 are:

- **R3**: Recycling/reclamation of organic substances which are not used as solvents; and
- **R13**: Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).

3.2.2 Permitted Types and Quantities of Waste for Composting

It is proposed that the site will accept and process greater than 75 tonnes per day of waste, as detailed in Table 3.1 below;

Table 3-1
Green Waste Composting Waste Codes for Acceptance as per the Standard Rules Permit

EWC CODE	DESCRIPTION
02	**WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING**
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	plant-tissue waste
02 01 06	animal faeces, urine and manure (including spoiled straw) only
02 01 07	wastes from forestry (biodegradable only)
02 01 99	wastes not otherwise specified (spent mushroom compost and fully biodegradable bedding only)
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 04	materials unsuitable for consumption or processing (biodegradable only)
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials (biodegradable only)
02 07 02	wastes from spirits distillation (biodegradable only)
02 07 04	material unsuitable for consumption or processing (biodegradable only)
02 07 99	wastes not otherwise specified (malt husks, malt sprouts, yeast and yeast-like residues only)
03	**WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD**
03 01	wastes from wood processing and the production of panels and furniture
03 01 01	waste bark and cork
03 01 05	Sawdust, shavings, cuttings, wood and particle board other than those in 03 01 04 only
03 03	wastes from pulp, paper and cardboard production and processing
03 03 01	waste bark and wood
03 03 10	fibre rejects only
04	WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES
04 02	waste from the textile industry
04 02 10	organic matter from natural products (un-dyed and untreated only)
15	**WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED**
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging (excluding veneers, plastic coatings or laminates)
15 01 03	wooden packaging
15 01 05	composite packaging (only biodegradable organic packaging)
15 01 09	textile packaging (made entirely from biodegradable fibres only)

17	**CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)**
17 02	wood, glass and plastic
17 02 01	wood
17 05	soils (excluding excavated soils from contaminated sites), stones and dredging spoil
17 05 06	dredging spoil other than those mentioned in 17 07 05 (from inland waters only)
19	**WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION/INDUSTRIAL USE**
19 02	wastes from physic/chemical treatments of waste (including dechromatation, decyanidation, neutralisation
19 02 03	premixed wastes composed only of non-hazardous wastes (waste types listed within these standard rules only)
19 05	wastes from the aerobic treatment of solid wastes
19 05 03	off-specification compost (from a composting process that accepts waste input types listed in these standard rules only)
19 08	waste from waste water treatment plants
19 08 05	sludges from treatment of urban waste water
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	paper and cardboard (excluding veneers or plastic coatings).
19 12 07	wood other than than that mentioned in 19 12 06
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11 (and only including wastes types listed in these standard rules)
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard (excluding veneers, plastic coatings or laminates)
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics (compostable plastics only)
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste (plant matter only)
20 03	other municipal wastes
20 03 02	waste from markets (biodegradable only)

3.2.3 Green Waste Composting Emissions and Monitoring

The site will be operated in accordance with the Environmental Permit such that there will be no point source emissions to air, surface water, groundwater or land.

Surface Water and Groundwater

The Green Waste Composting Facility will be designed to prevent or minimise fugitive emissions to surface water and groundwater. The composting processing area and pad will

be designed with a fall to a lagoon (Lagoon 2 as detailed in Drawing 003). All liquor arising from the composting process will run off to Lagoon 2 prior to being contained and tested before either being discharged to the existing leachate treatment system, surface water system or tankered away from the site. The retention lagoon has been designed to accommodate surface water runoff from a three day duration 20% Annual Exceedance Probability (AEP) rainfall event, which would allow for surface water runoff to be collected while the application is unattended. The layout and drainage infrastructure are illustrated on Drawings 002 and 003 respectively.

The green waste composting and WTF operations will be kept physically separate by means of low level bunding and will have distinct engineered drainage systems.

Clean surface water will run-off to Lagoon 1, located to the south of the proposed MWTRP.

Site surfacing will be maintained as required to ensure surfacing is fit for purpose. All operational areas, quarantine and fuel storage areas will be inspected to ensure the integrity and fitness for purpose of their construction is maintained at all times.

Odour

Operations at the site will be undertaken in accordance with procedures which will ensure that any issues associated with odours will be identified, and appropriate remedial and corrective action will be implemented as soon as practicable, including the removal of any particularly odorous waste where necessary.

Daily olfactory inspection will be carried out by site staff during the course of their normal working activities.

Dust

The Composting Facility will be located within the larger Trecatti Landfill site and as such has the benefit of existing dust minimisation measures. In order to minimise the emissions of dust from the facility, the following measures will be implemented:

- speed limits will be implemented for vehicles using the site;
- site access and haul roads and operational areas will be maintained and repaired to minimise emissions of dust due to uneven and poor surfacing;
- all roads and operational areas will be swept where necessary to reduce dust emissions;
- all vehicles delivering waste to the site shall be sheeted to minimise emissions of dust;
- discharge heights from any loading operation will be kept as low as possible;
- dust suppression systems will be implemented at the site where necessary. This may include the use of water bowsers;
- daily, visual inspection at all areas of the site and site boundary will be carried out by site personnel;
- in the event that significant visual dust is observed at the boundaries of the operational areas, action will be taken to suppress the dust;
- a record of the inspection findings and remedial action taken will be made in the site diary; and
- the Site Manager will be responsible for implementing the dust management, monitoring and action plan.

Noise

Waste acceptance, processing and physical treatment (e.g. turning of windrows) will only be carried out during operational hours. All equipment will be maintained and operated in accordance with manufacturer's guidance and will be maintained in good working order.

The site will be operated so as to minimise noise emissions from the site. Measures that will be taken at the site include:

- avoidance of dropping materials from height;
- all plant will be switched off when not in use;
- the imposition of a speed limit for vehicles delivering waste to the site. This will reduce noise associated with high engine speeds;
- all site personnel will be trained in the need to minimise site noise, and will be responsible for monitoring and reporting excessive noise when carrying out their everyday roles;
- all plant and equipment in use at the site will be regularly maintained to minimise noise resulting from inefficient operation of pumps, generators and engines;
- in the event that reversing alarms are found to give rise to complaints, alternative alarms or technology will be investigated;
- the regular maintenance of roads to prevent the development of potholes will significantly reduce noise generated, particularly by empty vehicles exiting the site;
- consideration will be given to the fitting of noise suppression kits on items of plant and equipment; and
- all plant will be maintained in accordance with manufacturer's recommendations to minimise noise emissions.

Any complaint that is received will be logged in the site diary. The Site Manager will investigate the complaint and will take action to identify the source of the noise and implement remedial measures where appropriate.

Pests

Due to the strict operational procedures employed at the site and the nature of the waste type, pests are not envisaged as being a nuisance. However, should pests become a nuisance at the site or the surrounding environment (and attributed to operations at the site) a pest control contractor will be brought in immediately to alleviate the problem. Pest control measures already exist at the site in relation to the landfill installation activities.

Litter

Due to the nature of the wastes to be accepted on-site, it is not anticipated that litter will pose a serious risk. However, the boundary of the site and its environs will be regularly checked and any windblown litter collected and disposed of appropriately.

It will be the responsibility of the site staff to constantly monitor the site for any signs of escaping materials either from within the site or from vehicles delivering or removing materials to and from the site. Litter control measures already exist at the site in relation to the landfill installation activities.

Inspections will be carried out on a daily basis and a record maintained within the site diary.

Mud and Debris

Access to the facility is gained via internal haul road from the landfill site entrance off Fochriw Road. Measures are already in place at the site to prevent and minimise mud and debris from becoming deposited onto public highways. Vehicles entering the site carrying waste destined for the composting will benefit from and be subject to the same measures.

The pad area will consist of impermeable surfacing which will be maintained free of potholes to prevent the pooling of surface water. Green wastes (whether awaiting treatment on the processing area, undergoing treatment or storage after treatment) will not overhang the 'pad', and so vehicles (other than mobile plant used in the operations) should not come into contact with significant quantities of waste which may then leave the pad on vehicles.

Should mud on road be attributable to operations at the site Biffa will take remedial action (road sweeping, washing of vehicles on site) as necessary in accordance with the procedures set out in their Environmental Management System and the conditions of the Environmental Permit.

4.0 ENVIRONMENTAL PERMITTING

4.1 Standard Rule Permit Application

Biffa wish to vary the existing Permit to add a Standard Rule Environmental Permit SR2012 No8: Composting in Open Systems (Part A Installation – capacity more than 75 tonnes per day) to allow for Green Waste Composting operations on site. As such, it is proposed SR2012 No8 and all the associated conditions be transposed into the Environmental Permit.

The facility will be a listed under the following section:

- Section 5.4 Part A(1)(b)(i) Recovery of non-hazardous waste with a capacity exceeding 75 tonnes per day - biological treatment.

Drawings 001, 002 and 003 show the proposed site location, site layout and drainage infrastructure respectively.

Standard Rule Environmental Permit SR2012 No8 carries a fixed application fee of £1,948 as detailed in the appropriate Environmental Permitting Charging Scheme & Guidance April 2015 from Natural Resources Wales.

4.2 Environmental Permit Variation Application

The WTF will serve the existing landfill Installation and will be a directly associated activity (DAA) to the permitted Installation.

The waste management operations to be carried out associated with the WTF at the site as specified in Annex I and Annex II of the Waste Framework Directive 2008 are:

- R5 Recycling/reclamation of other inorganic compounds;
- R13: Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced);
- D8 Biological treatment of non-hazardous waste; and
- D15 Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection on the site where it is produced).

The facility will be a listed DAA under the following section:

- S5.3 A(1)(a)(vi): Recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving Recycling/reclamation of inorganic materials other than metals and metal compounds (R5)
- S5.3 A(1)(a)(iii): Recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving blending or mixing prior to submission to bioremediation. (R5)
- S5.4 A(1)(b)(i): Recovery of non-hazardous waste soils with a capacity exceeding 75 tonnes per day involving biological treatment. (R5)
- S5.6 A(1)(a): Temporary storage of hazardous waste with a total capacity exceeding50 tonnes. (R13, D15)

The WTF will accept up to 30,000 tonnes of the European Waste Catalogue (EWC) Codes listed in Appendix C3_1 of this application.

Table 2-1 details the Permit conditions which will need amending to accommodate the WTF proposals.

Table 4-1
Proposed Variations to Permit Conditions EPR/RP3733PC

Permit Condition / Table	Issue	Proposed Change
Schedule 1 Table S1.1	Specified activities	Addition of the listed DAA's to reflect the recovery activities carried out at the WTF as described in this variation application. Addition of SR2012 No8 Listed Activity.
Schedule 7	Site Plan	The drawing should be updated with Drawing 001 to reflect the inclusion of the Pad.
Schedule 1 Table S1.4	Annual waste input limits	Table S1.4 should be updated to include the following: **Table S1.4 Annual Waste Input Limits** Category: Hazardous soils for WTF — Limit Tonnes: 30,000 tonnes per year
Section 2.3 Table S1.2	Operating techniques	The operating techniques shall be updated to include the operation of the WTF as illustrated on Drawings 001 – 005.
Schedule 2	Waste Types	The permitted waste types shall be updated to include the EWC codes for acceptance at the WTF as detailed in Appendix C3_1 of this variation application.
Table S1.4	Waste Input Limits	Addition of 30,000 tonnes of hazardous waste for the WTF.

5.0 SUBSTANTIAL CHANGE ASSESSMENT

To determine the type of permit variation required, the following guidance was consulted:

- Environment Agency Environmental Permitting Regulatory Guidance Series, No.EPR8, Changes in Operation; and
- Environmental Permitting Charging Scheme Guidance

The proposed variation will constitute a substantial change as specified in The Environmental Permitting (England and Wales) Regulations 2010 as amended; Schedule 5, Part 1, Paragraph 5, 'Public Participation Scope', sub paragraph (5)(a);

"'substantial change' means a change in operation of an installation which in the regulator's opinion may have significant negative effects on human beings or the environment and includes—

"in relation to a Part A installation, a change in operation which in itself meets the thresholds, if any, set out in Part 2 of Schedule ."

6.0 SUMMARY OF RISK ASSESSMENTS

The proposed WTF operations will operate in accordance with Biffa's Environmental Management System (EMS). Fugitive emissions of noise, odour, dust and particulates will be managed in line with the EMS, the Environmental Permit and Biffa's on-site procedures.

In accordance with the Environment Agency's guidance, this section of the NTS gives a summary of the key technical standards and control measures which arise from the risk assessment for the operations undertaken at the WTF.

Table6.1: Waste Treatment Facility: Potential Environmental Risk

Risk from the following	Potential Environmental Risk
Contaminated surface water runoff	Pollution of surface water, land and groundwater.
Odour	Generation of odour causing nuisance and loss of amenity.
Mud on Road	Mud leaving the site and impacting on local road network.
Noise and Vibration	Noise and vibration causing nuisance and loss of amenity.
Dust	Release of particulate matter causing harm to human health and nuisance to local population.
Arson and Vandalism	Vandalism causing release of polluting materials to air, water and land.
Accidental Fire	Accidental fire causing release of polluting materials to air, water and land.
Accidental spillage of potentially polluting liquids	Spillage of polluting liquids or contaminated rainwater runoff reaching surface or ground water.

Biffa recognise these potential risks and will therefore have in place mitigation measures to minimise the risk as far as practicably possible. A summary of the mitigation measures are detailed in the H1 assessment (407.00034.000461/H1_Annex A) which assesses these risks and justifies appropriate measures to control them where necessary.

In summary, procedures employed at the site will ensure the following:

- the site road and waste soils acceptance areas will be hard surfaced and will be kept free of mud and debris;
- vehicles will be inspected and cleaned as necessary on leaving the site, in order to prevent from mud being tracked onto the highway;
- the site access road will be maintained and kept in a good state of repair, a speed limit will be imposed;
- a road sweeper will be hired if necessary to sweep the main access road and other hard surfaced areas of the site;
- vehicles and plant will be appropriately maintained so as to ensure that the operation of the site will not give rise to unacceptable noise or vibration levels which may cause a nuisance at neighbouring properties or land uses;

- operational areas, including roads will be dampened down during prolonged periods of dry weather in order to mitigate against dust and particulates which may otherwise escape from the site boundary;
- no waste shall be burned on the site;
- the site will be gated and will be locked at all times when the site is unmanned to prevent unauthorised access. In addition, security fencing will be in place around the site perimeter;
- any tanks or containers used for the storage of any liquid fuel oil or other potentially polluting liquids at the WTF shall at all times be labelled as to the contents, and bunded to 110% of the capacity of the liquid stored;
- spill kits will be kept at the site;
- the run off of clean surface water and potentially contaminated water will be managed via separate systems; and
- surface water which has come into contact with waste will be treated as potentially contaminated water.

The H1 environmental risk assessment concludes that with the implementation of the risk management measures described therein, potential hazards from the proposed permit variation are unlikely to be significant to the environment.

The key technical standards and control measures which arise from the H1 Assessment are detailed in the Best Available Techniques and Operating Techniques document (407.00034.00461/BATOT). Site specific operational and management measures relating to the bioremediation process will be detailed in the Trecatti Multipurpose Waste Treatment and Remediation Pad Operations Manual.

7.0 CLOSURE

This report has been prepared by SLR Consulting Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client.

This report is for the exclusive use of Biffa Waste Services Limited; no warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR. SLR disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.

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