

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Celtic Technologies Limited

Unit 8 Commerce Park
Brunel Road
Theale
Reading
Berkshire
RG7 4AB

Variation application number

EPR/AP3195FG/V005

Permit number

EPR/AP3195FG

Permit number EPR/AP3195FG

Introductory note

This introductory note does not form a part of the notice

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

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

Application to vary the permit to include air-cooled basic oxygen steel slag (BOS) to the list of additives within their environmental permit. This material is proposed for use within the treatment process for the stabilisation/solidification of contaminated soils. The BOS will be added to the mixing process as a stabiliser / binder as a partial replacement for other additives typically used such as Pulverised Fuel Ash (PFA) or cement.

The schedules specify the changes made to the original permit.

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

Status log of the permit		
Description	Date	Comments
Permit determined EAWML 30379	04/11/05	Original permit issued to Celtic Technologies Limited
Permit Modified EAWML 30379	16/05/06	
Variation determined EPR/AP3195FG/V003	08/06/11	Varied permit issued. Addition of Condition 4.3
Variation determined EPR/AP3195FG/V004	27/03/12	Varied permit issued. Application to add SR2018No27 and spent mushroom compost as an imported waste for use in bioremediation treatment
Application EPR/AP3195FG/V005 (variation and consolidation)	Duly made 24/12/2018	Application to vary the permit to include stabilisation treatment with BOS and update the permit to modern conditions.
Variation determined EPR/AP3195FG	26/04/2019	Varied permit issued.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

Permit number

EPR/AP3195FG

Issued to

Celtic Technologies Limited ("the operator")

whose registered office is

Unit 8 Commerce Park

Brunel Road

Theale

Reading

Berkshire

RG7 4AB

company registration number 02695341

to the extent set out in the schedules.

Under regulation 27(2) of the Regulations, standard rules **2008 No27** are conditions of this permit.

Name	Date
Samantha Haddock	26/04/2019

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of the application made by the operator.

Schedule 2 – consolidated permit

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/AP3195FG

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/AP3195FG/V005 authorising,

Celtic Technologies Limited (“the operator”),

whose registered office is

**Unit 8 Commerce Park
Brunel Road
Theale
Reading
Berkshire
RG7 4AB**

company registration number 02695341

to operate waste mobile plant

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

Under regulation 27(2) of the Regulations, standard rules **SR 2008 No27** are conditions of this permit.

Name	Date
Samantha Haddock	26/04/2019

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Avoidance, recovery and disposal of wastes produced by the activities

- 1.2.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.2.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).
- 2.1.2 Treatment activities under this permit shall not begin at any site until the Environment Agency has agreed a deployment form in writing for that particular site.
- 2.1.3 All process plant and equipment shall be commissioned, operated and maintained, and shall be fully documented and recorded, in accordance with the agreed deployment form.

2.2 Operating techniques

- 2.2.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.2.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this

permit which identifies and minimises the risks of pollution relevant to that plan , and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.2.3 Waste shall only be accepted if:

- (a) it is of a type and quantity stated in the agreed deployment form for that particular site; and it conforms to the description in the documentation supplied by the producer and holder; and if used for bioremediation treatment under Activity A1 Table S1.1 it is of a type and quantity listed in schedule 2 table S2.1; and
- (b) if used for solidification and stabilisation treatment under Activity A2 Table S1.1 it is of a type and quantity listed in schedule 2 table S2.2.

2.2.3 The total quantity of waste soils and contaminated material, substances or products treated at any site shall not exceed:

- (a) that stated in the agreed deployment form for that particular site and, if used for bioremediation treatment under Activity A1 Table S1.1, that listed in schedule 2 table S2.1, and
- (b) if used for solidification and stabilisation treatment under Activity A2 Table S1.1 that listed in schedule 2 table S2.2.

2.2.4 Wastes can only be stored and treated under this permit if:

- (a) they are listed in the agreed deployment form for the particular site ; and
- (b) used for bioremediation treatment under Activity A1 Table S1.1, are listed in schedule 2 table S2.1; and
- (c) used for solidification and stabilisation treatment under Activity A2 Table S1.1, are listed in schedule 2 table S2.2.

2.3 Technical requirements

Hazardous waste storage and treatment

2.3.1 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

3 Emissions and monitoring

3.1 Emissions to air, water or land

3.1.1 There shall be no point source emissions to air, water or land, except from the sources listed in the agreed deployment form.

3.1.2 The limits given in the agreed deployment form shall not be exceeded.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
 - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
 - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

The operator shall undertake monitoring for the parameters, at the locations and not less than the frequencies specified in the agreed deployment form.

3.6 Pests

- 3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.
- 3.6.2 The operator shall:

- (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution, hazard or annoyance from pests;

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to each site and the waste accepted and removed from it during the previous quarter.

4.3 Notifications

4.3.1 The Environment Agency shall be notified without delay following the detection of:

- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;
- (b) the breach of a limit specified in the permit; or
- (c) any significant adverse environmental effects.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (c) any change in the operator's name or address; and
- (d) any steps taken with a view to the dissolution of the operator.

- 4.3.4 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
- (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.5 The operator shall notify the Environment Agency at least 7 days prior to commencement of agreed deployment.
- 4.3.6 The operator shall notify the Environment Agency at least 7 days prior to the end of agreed deployment.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “without delay”, in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities		
Activity reference	Description of activities for waste operations	Limits of activities
A1 - mobile plant for the treatment of soils and contaminated material, substances or products.	R3: Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	<p>The mobile plant shall be for the treatment of soils and the treatment of contaminated material, substances or products, for the purpose of remedial action with respect to land or controlled waters.</p> <p>Storage and treatment consisting only of the use of the following technology and associated plant including the use of that technology and plant in combination with others listed:</p> <ul style="list-style-type: none"> • Air sparging • Bioremediation – insitu and exsitu (windrows, biopiles, in-vessel bioreactors) • Biosparging • Bioventing • Chemical Treatment (including oxidation, dehalogenation) • Ex-situ treatment of pumped groundwater (chemical treatment, biological treatment, air stripping, filtration, carbon adsorption) • Soil Vapour Extraction (including dual phase SVE) • Soil Flushing (including steam injection) • Soil Washing • Solidification • Stabilisation • Thermal treatment (including thermal desorption and steam injection) • Treatment plant for sorting and separation • Treatment plant for blending, mixing, bulking, screening, shredding, particle size reduction and/or particle separation in order to facilitate remedial action. <p>Unless otherwise stated in the agreed deployment form, waste soils and contaminated materials, substances or products shall be kept and treated on an impermeable surface with sealed drainage system.</p> <p>Inert wastes shall be kept and treated on hard standing or on an impermeable surface with sealed drainage system.</p> <p>Use of the wastes listed in Table S2.1 to facilitate Bioremediation treatment for recovery.</p> <p>Where spent mushroom compost is used to facilitate treatment by Bioremediation, the compost shall be fully matured and stabilised, and stored for no longer that 1 week prior to use.</p>
	R4: Recycling/reclamation of metals and metal compounds	
	R5: Recycling/reclamation of other inorganic materials	
	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where the waste is produced)	
	D8: Biological treatment not specified elsewhere which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D12	
	D9: Physico-chemical treatment not specified elsewhere which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D12	
	D13: Blending or mixing prior to submission to any of the operations numbered D1 to D12	
	D14: Repackaging prior to submission to any of the	

Table S1.1 activities		
Activity reference	Description of activities for waste operations	Limits of activities
	<p>operations numbered D1 to D13</p> <p>D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where the waste is produced)</p>	
A2 - mobile plant for the solidification/stabilisation of soils and contaminated material, substances or products using Air-cooled basic oxygen steel slag (BOS)	<p>R3: Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)</p> <p>R4: Recycling/reclamation of metals and metal compounds</p> <p>R5: Recycling/reclamation of other inorganic materials</p> <p>R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where the waste is produced)</p>	<p>The mobile plant shall be for the treatment of soils and the treatment of contaminated material, substances or products, for the purpose of remedial action with respect to land or controlled waters.</p> <p>Storage and treatment for recovery consisting only of use of the following technology only and associated plant</p> <ul style="list-style-type: none"> • Solidification • Stabilisation • Deployment under this activity shall not commence until the results of the trial, conducted in line with the agreed methodology using any waste listed in Table S2.2 derived from a known source, are agreed in writing by the Environment Agency. • The waste from Table S2.2 to be used at a deployment site must conform to those used in the trial at that same site. • The mixing ratios of the waste from Table S2.2 shall not exceed those used in the trial unless otherwise agreed in writing by the Environment Agency. • Unless otherwise stated in the agreed deployment form, waste soils and contaminated materials, substances or products shall be kept and treated on an impermeable surface with sealed drainage system. <p>Use of the wastes listed in Table S2.2 to facilitate solidification/stabilisation treatment for recovery.</p>

Table S1.2 Operating techniques		
Description	Parts	Date Received
Response to email dated 03/04/2019	Document entitled "Celtic-BOS Slag Pilot Trials Generic Procedure-0 01.04.19" which details methodology for assessing beneficial BOS usage.	03/04/2019

Schedule 2 – Waste types

Table S2.1 Permitted waste types for bioremediation treatment activities	
Maximum quantity	The total quantity of waste accepted as agreed under the deployment
Waste 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 99	Spent mushroom compost
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 04*	sawdust, shavings, cuttings, wood, particle board and veneer containing hazardous substances
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 05*	dredging spoil containing hazardous substances
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09 (oil refinery lagoon base sludge only)
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 07	wood other 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 (oil refinery lagoon base sludge only)

Table S2.2 Permitted waste types for the stabilisation/solidification process	
Maximum quantity	The total quantity of waste accepted as agreed under the deployment
Waste code	Description
10	Wastes from thermal processes
10 02	wastes from the iron and steel industry
10 02 01	waste from the processing of slag (Air-cooled basic oxygen steel slag (BOS) only)

Schedule 3 – Emissions and monitoring

There are no emission limits or associated monitoring requirements.

Schedule 4 – Reporting

There is no reporting under this schedule.

Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

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

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

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Measures taken, or intended to be taken, to stop the emission	

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

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

Part B – to be submitted as soon as practicable

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

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“contaminated material, substances or products” means contaminated material, substances or products for the purpose of remedial action with respect to land and controlled waters.

“D” means a disposal operation provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“deployment form” means the Environment Agency form that requires site specific information and control measures to be provided and agreed prior to the use of any mobile plant at a site.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“R” means a recovery operation provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

“year” means calendar year ending 31 December.

When the following terms appear in the waste code list in Schedule 2, tables S2.1 and S.2.2, for those tables, they have the meaning given below:

“hazardous substance” means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008.

“heavy metal” means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances.

“PCBs” means

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0,005 %by weight.

“transition metals” means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances.

“stabilisation” means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste.

“solidification” means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste.

“partly stabilised wastes” means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.