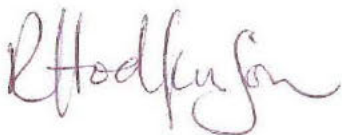


<b>Project details</b>	Environmental Permit Variation Application – EPR HP3638WW/A005 O.C.O Technology Limited – Avonmouth Aggregate Production Facility
<b>Applicant details</b>	O.C.O Technology Limited Avonmouth Aggregate Production Facility Off Central Avenue Hallen Avonmouth BS10 7SD
<b>Report details</b>	<b>EP Variation Application – Supporting Statement</b> <b>Document reference: OCO_2020.03/01_v1</b>
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## 1 Introduction

### 1.1 General

O.C.O Technology Ltd (the ‘applicant’) has requested that Reva Environmental Ltd (the ‘agent’) prepares an Environmental Permit (EP) variation application, for its aggregate production facility off Central Avenue, Hallen, Avonmouth, BS10 7SD. The centre of the site is as NGR ST 53828 83207.

The facility treats air pollution control (APC) residues to create an aggregate that can be used in block manufacture. This is currently carried out in two production lines which can operate in parallel. APC residues are delivered in powder tankers and transferred into silos, then into a reactor where they are treated with carbon dioxide to lower the pH and reduce the leachability of some heavy metals. The material is then mixed with cement, sand, and water to turn it into pellets. The pellets are stored in covered bays and used to make blocks. Processing is all carried out in a building.

### 1.2 Current Site Status

The facility is currently authorised by EP ref. EPR/HP3638WW which was originally granted in September 2015. The EP history is shown in Table SS1.

**Table SS1: Permit History**

Description	Date	Details
Original Permit EPR/HP3638WW	15/09/2015	Permit issued to Carbon8 Aggregates Limited
Variation EPR/HP3638WW/V002	18/07/2017	Variation to add three waste codes and to increase the site boundary
Variation EPR/HP3638WW/V003	13/08/2019	Variation Application to permit additional waste types following successful trial, returned
Variation EPR/HP3638WW/V004	10/12/2020	Variation to permit additional waste types following successful trial. EP issued in the name of O.C.O Technology Limited

The current EP allows the following activities to be carried out at the facility:

- 5.3 A(1)(a)(vi) – Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving the recycling or reclamation of inorganic materials other than metals or metal compounds (R5). This listed activity applies twice (A1 and A2) to reflect the two production lines and allows the applicant to treat certain hazardous wastes for the purposes of producing pellets; and
- 5.6 A(1)(a) – Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes (R13). The maximum storage capacity is given as 1750 tonnes, and a maximum storage time of 6 months is enforced, from the date of receipt of the waste.

Three directly associated activities (DAAs) are included as follows:

- Handling and storage of wastes, prior to treatment and recovery activities for hazardous wastes;
- Storage of raw materials for use within production lines A1 and A2 – this is limited to 150 tonnes of cement (binder) at any one time, 700 tonnes of sand (filler) at any one time, and 50 tonnes of carbon dioxide at any one time; and
- Surface water collection and storage (uncontaminated roof and site surface) in two (above ground) storage tanks for re-use within the facility.

### 1.3 Application Objective

The applicant wishes to install a third treatment line at the site. The line will be an exact duplicate of the two existing treatment lines, will process the same permitted wastes, and will utilise the same permitted raw materials to produce the aggregate. It will be located to the north of the two existing production lines, within the existing building footprint. It is proposed that the addition is addressed in the EP by way of the following changes:

- Inclusion of the third line as an additional listed activity under S5.3 Part A(1)(a)(vi) in Table S1.1;
- Increase of the total storage limit for hazardous waste specified against AR3 in Table S1.1. The current EP limits storage to 1,750 tonnes of waste at any one time. This is in 8 storage silos. The proposal includes the addition of 4 more storage silos, an increase of 50%. The storage limit is therefore to be increased by 875 tonnes to 2,625 tonnes. The additional storage silos would be located on a dedicated pad to the west of the existing silo pad, where the EP currently allows water and CO<sub>2</sub> storage;
- Increase of storage of binder. This is currently permitted in one silo, adjacent to the waste silos, which has a capacity of approximately 125 m<sup>3</sup>. The proposal includes an additional binder silo to be placed on an extension to the existing silo pad foundation immediately to the south of the existing silo, increasing the total storage capacity to 400 tonnes;
- Increase of storage of filler. This is currently permitted in a storage bay that has a capacity of approximately 400 m<sup>3</sup> and two additional bays No.1 and No.2 which have never been used. This application seeks to surrender both the area of the primary storage bay and the unused areas. The currently used bay will become new Aggregate Storage Bay 1 (not covered by the EP as it is a product not a waste) and a new larger bay will be built for filler which will have a capacity of 880 m<sup>3</sup> (an overall increase of 480 m<sup>3</sup>). Any one of the available Aggregate Bays 4 to 7 can also be used for filler storage; noting that only one would be used at any time. This would allow O.C.O to retain sufficient filler for the times when quarries close but the aggregate facility remains open. This is a further 400 m<sup>3</sup>. This equates to a total filler capacity of 1,280 tonnes (compared to the current permitted limit of 700 tonnes);
- Increase of CO<sub>2</sub> storage. The current EP allows for two tanks although the applicant has only built one; the EP allows total storage of 50 tonnes. The existing tank will be removed and a new pad installed to the east of the process building which can accommodate 2 new tanks. The current storage limit is for 2 tanks so the physical permitted infrastructure will remain unchanged, however the capacity is doubled to 100 tonnes (each tank is 50 tonnes); and
- Inclusion of new emission points in Tables S3.1 for the vents on the four new waste silos, and one new binder silo.

The existing EP boundary comprises four separate areas. Two of these are Additional Sand Bays No.1 and No.2. These have never been used for this purpose. This application seeks to surrender these as a low risk surrender (having never been used for the permitted activity) and includes this by way of completion of application form Part E2 for the partial surrender of the EP. The addition of new silos/tanks, the relocation of the primary filler storage bay, and the moving of the water and CO<sub>2</sub> tanks requires the boundary to be slightly amended.

The proposed new boundary is defined on the updated Site Layout Plan provided in **Appendix C** of this variation application.



## 2 Application Form

An application to vary a bespoke installation EP requires the completion of the EA application form parts A, C2, C3 and F1. As stated in the guidance notes for the form, details only need to be included in relation to the parts of the existing permit (and permitted activities) that will be affected by the variation application. Details have primarily been provided on the form. Part E2 has also been completed to enable the partial surrender of the current filler storage bay and the unused additional filler storage bays.

This section provides additional supporting information and signposts to supplementary documents provided in support of the variation application.

The application form is provided at the front of this EP variation application document.

### 2.1 Form Part A

Contact details for the agent and the applicant are provided in this part of the application form. In addition to the relevant persons required by Question 5c of the form, details are provided for the Directors as follows:

- John Stephen Greig (Managing Director) – Date of Birth: [REDACTED]
- Stephen Brian Roscoe (Director) – Date of Birth: [REDACTED]
- Richard MacAndrew Skehens (Director) – Date of Birth: [REDACTED]
- Clayton Sinclair Sullivan-Webb (Director) – Date of Birth: [REDACTED]

### 2.2 Form Part C2

#### 2.2.1 Question 1a

A request for pre-application advice was requested from the Environment Agency (EA). Due to EA restrictions on this advice during COVID, the request was limited to nature and heritage conservation screening only. A copy of the response is provided in **Appendix A** of this application.

#### 2.2.2 Question 2a

The application being made is considered to fall under the definition of a substantial variation. The reason for this is twofold: firstly it seeks to add a listed activity, even though this is a duplicate of the existing permitting listed activities for the treatment of waste under S5.3 Part A(1)(a)(vi); secondly the increase in storage of hazardous waste is itself above the listed activity threshold of 50 tonnes at any one time under S5.6 Part A(1)(a). It is noted that despite this classification, the application does not seek to amend the permitted waste types or the type of raw materials; nor does it affect the way in which the permitted process is undertaken.

#### 2.2.3 Question 3

Question 3 is required to be completed where the application seeks to add a waste installation or operation to an EP that has not previously had them. The proposed listed activity is a duplicate of the 2 treatment activities already permitted; therefore this part of the form is not applicable and has not been completed. The EA already holds information pertaining to relevant offences, finances, and the certified management system. Updated information relating to COTC is provided in this application. The applicant has identified two technically competent managers, certified under WAMITAB. A WAMITAB certificate is included for each in **Appendix B**, along with their most recent continuing competency certificate (where applicable). Also included is the credit certificate and list of units gained, which seeks to demonstrate the appropriateness of these persons to provide COTC for the site.

The competent managers do provide technical competence for other O.C.O sites and these are detailed in Table SS2.

**Table SS2: TCM Details**

EP Number	Site Address	Postcode
<b>Paul Barber</b>		
EPR/JP3332FK	Brandon Aggregate Manufacturing Plant Lignacite Block Works High Street Brandon Suffolk	OP27 OAX
EPR/TP3737YG	Leeds Aggregate Manufacturing Facility Hub 45 Knowsthorpe Gate Leeds West Yorkshire	LS9 ONX
EPR/HP3638WW	Avonmouth Aggregate Manufacturing Facility Unit 1 Severn View Industrial Estate Central Avenue Avonmouth	BS10 7SD
<b>Peter Swann</b>		
EPR/TP3737YG	Leeds Aggregate Manufacturing Facility Hub 45 Knowsthorpe Gate Leeds West Yorkshire	LS9 ONX

#### 2.2.4 Question 4

Question 4 requires confirmation of the sewerage undertaker where a discharge is part of the activity being applied for. This is not applicable to the site, there is no discharge consent at the facility currently and one is not required as a result of this application.

#### 2.2.5 Question 5

Question 5a requires site plans to be provided in support of the variation application where appropriate. The application seeks to add a third production line and to increase the quantity of waste storage and raw material storage on the site. The proposal is also to relocate a number of the existing features to new locations. The site layout plan has been amended to reflect this (and the partial surrender also covered by this application). A copy of the updated plan is provided in **Appendix C** of this application.

Question 5b requires a site report to be produced for any extra land that is to be included in the EP. The EP boundary is subject to minor change as a result of this application; a site report is therefore required to cover the additional area of land. A site condition report was generated for the purposes of the original EP application in 2015 (ref. TEC Ltd, 1204012). That report including a preliminary geo-environmental assessment, remediation strategy and verification plan and surrender condition report. It covers the full extent of the facility (ownership boundary) and is therefore applicable to the new areas of land to be included in the EP boundary. The status log of the EP confirms the EA was in receipt of, and considered, the baseline report in 2015 however copies can be provided again if required.

Question 5c requires the provision of a non-technical summary. This has been produced and is provided in **Appendix D** of this application.

Question 5d requires the submission of a fire prevention plan if the facility includes the storage of combustible waste. This is not applicable to this application; the waste accepted at the site is a product of a thermal treatment so is not itself combustible.

Question 5f requires the provision of a baseline report where the application is seeking to add an installation. As referenced in response to Question 5b above, a site condition report was produced for the original EP application in 2015 and included the whole site area. For this application the existing site condition report remains valid and applicable.

### **2.2.6 Question 6**

Question 6 requires the provision of an environmental risk assessment (ERA).

There is an existing qualitative assessment in place at the site for the current activities and it follows the EA's source-pathway-receptor model. It was submitted with the original 2015 application. The purpose of this variation application is to add a third production line and it is confirmed that this does not present any new risks, however the applicant has implemented additional control measures since then so this application presents an updated ERA. The EA pre-application advice identifies three sites that are designated as a SAC; two of these (the Severn Estuary and River Wye) are also designated as SPA and Ramsar sites. The Severn Estuary is also a SSSI of which parts comprise Local Wildlife Sites. These have been explicitly considered in the ERA, a copy of which is provided in **Appendix E** of this variation application.

## **2.3 Form Part C3**

### **2.3.1 Question 1**

The existing permit includes the operation of two production lines. The application is to add a third, duplicate, production line. It will process the same permitted wastes, and will utilise the same permitted raw materials to produce the aggregate. Table 1a has been completed to reflect the resulting total capacities once the third line has been added i.e. an increase in treatment capacity from 50,000 tonnes per year to 90,000 tonnes per year; and an increase in waste storage from 1,750 tonnes in 8 silos, to 2,625 tonnes in 12 silos. The proposed increase in the treatment capacity is greater than 50% of the existing capacity as it allows for not just the additional line capacity but also efficiencies achieved in the existing two lines. It also reflects the permitted capacities at the applicant's other process facilities. It is acknowledged that the increase in hazardous waste storage is greater than the associated listed activity threshold of 50 tonnes (S5.6 Part A(1)(a)).

No daily processing limit is applied in the current permit; for the purposes of completing Table 1a of the form, an estimate has been made based on the annual throughput and estimated operating hours per year. This is 300 tonnes per day or 100 tonnes per day per line.

### **2.3.2 Question 2**

The application seeks to add 4 new waste storage silos, allow the relocation of the filler storage bay, and add 1 new binder silo and a third production line. Whilst 2 new CO<sub>2</sub> tanks are proposed, this will be a direct replacement of the existing permitted tanks so there is no overall increase. The proposals result in the addition of new emission points as follows, for inclusion in Table S3.1:

- Vents from the 4 additional waste storage silos; and
- A vent from the 1 additional binder silo.

The existing emission identifiers for the CO<sub>2</sub> tanks will move with the relocated tanks. No new vents will be required from the building as a result of the third line installation.

### 2.3.3 Question 3

Question 3a relates to operating techniques. The techniques that would be applied to the operation of the third production line are unchanged from those already permitted, therefore the techniques referred to in Table S1.2 of the permit remain relevant and applicable. A BAT assessment was submitted for the original application in 2015 and also remains relevant. An updated assessment has however been produced, to reflect fully the proposed operations and to provide consistency with the other facilities. A copy of the updated BAT Assessment is provided in **Appendix F** of this variation application.

Question 3d relates to raw materials. The types of raw materials used as filler and binder are the same as those already permitted but the quantity used will increase proportionally with the addition of the third line. Storage capacity is to be increased by the installation of 1 additional binder silo, the location of which is shown on the Site Layout Plan, and the building of a new larger filler storage bay. The storage of CO<sub>2</sub> will remain the same as is currently permitted (2 tanks) but new tanks will be installed in a different location.

### 2.3.4 Question 6

Question 6a requires information to be provided as to the basic measures implemented to improve energy efficiency. A copy of the updated BAT Assessment, which sets out the measures in place, is provided in **Appendix F** of this variation application.

Question 6b requires a breakdown of any changes to energy use resulting from the application. As the application seeks to add a third, duplicate, production line, it is anticipated that energy use in relation to the actual production line will increase proportionally, however there will be other efficiencies such as no additional lighting required in the main building, the air compressor will not be subject to an increase in energy use, existing conveyors can manage the increase, and motors will not draw a proportional increase. Energy use is monitored at the site and reviewed on a regular basis in order to identify any inconsistencies and/or opportunities for improvement. Further details are provided in the BAT Assessment which is Appendix F of this variation application.

## 2.4 Form Part E2

The existing EP boundary comprises four separate areas as shown on Figure SS1 (an extract from the current EP). Two of these are Additional Sand Bays No.1 and No.2 – annotated for clarity – and one is the currently used primary sand storage bay.

The currently used bay will become Aggregate Bay No.1; no remediation or change to the infrastructure is required to facilitate this. The bay remains in good condition, as at the time of granting of the existing permit. The current bay has been used to store sand, a filler for the aggregate manufacturing process. This is a clean raw material, not a waste material. The potential environmental risk associated with the storage of this, on an impermeable concrete base, is deemed to be insignificant.

The two additional bays have never been used for the purpose of storage of sand; no remediation is required and there has been no potential for environmental impact from these unused areas.

On this basis, this application seeks to surrender these three areas as a low risk surrender and includes this by way of completion of application form Part E2 for the partial surrender of the EP.



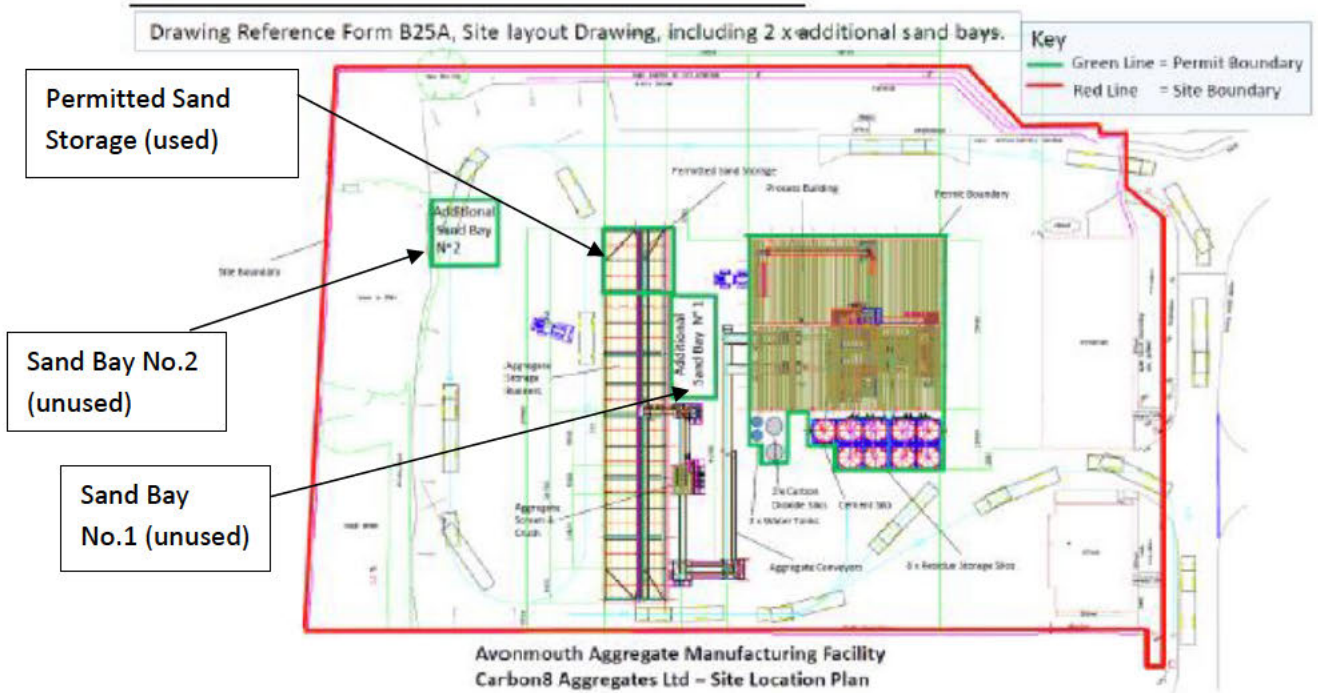


Figure SS1: Current EP Boundary

In order to compare the existing EP boundary with the proposed boundary as shown on the updated site plan in Appendix C, the former has been superimposed onto the latter, as shown on Figure SS2 in shading.

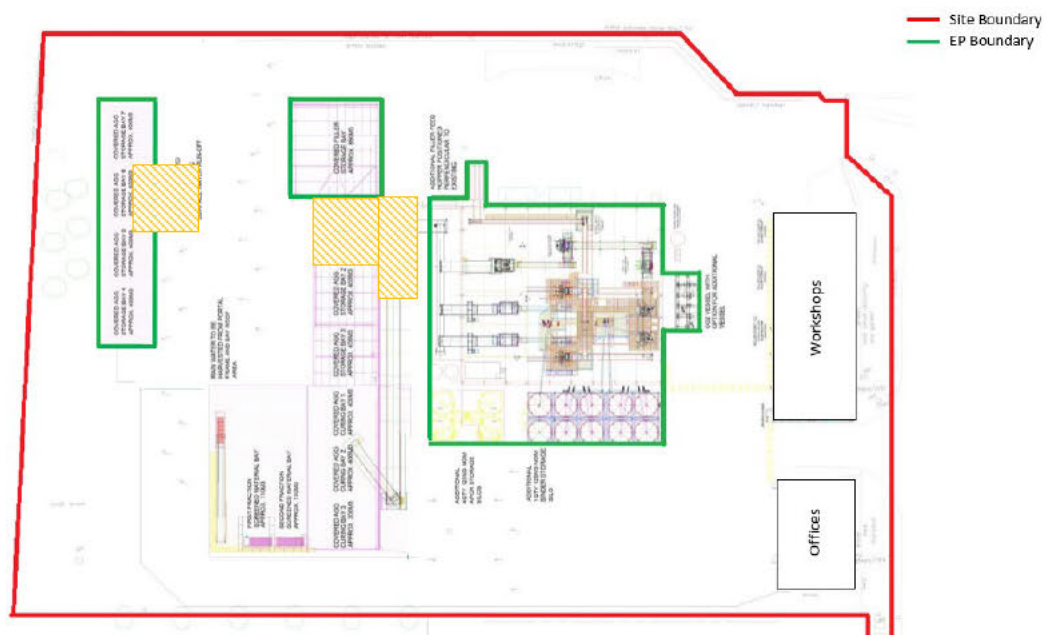


Figure SS2: Surrender Areas

In relation to this part of the application, it is requested that discussions are had with the applicant as to the timing of the grant of the varied EP and how to include the surrender of the areas covered in this section. Due to uncertainties relating to the timing of both the construction programme for the proposed changes, and those in the permit determination process, the applicant would like to avoid a situation whereby the varied permit is granted and the current filler storage areas surrendered before they are in a position to move into and utilise the new storage area.

## 2.5 Form Part F1

The application fee has been identified using the April 2019 EA Charging Scheme and is made up of two charges.

1. The variation seeks to add a listed activity in relation to the recovery of hazardous waste under 5.3 Part A(1)(a)(vi), albeit a duplicate of those already included in the EP. According to Table 1.16, the substantial variation fee for activity 1.16.1.5 is £14,401; and
2. The increase in temporary hazardous waste storage sought by the application is also considered to constitute a substantial variation as the increase exceeds the listed activity threshold in its own right. The substantial variation fee is 90% of the charge applicable to the listed activity; this is 1.16.4 and is £12,167.

Payment of the combined application fee of £26,568 has been made by BACS, reference PSCAPPOCOTE222.

The application has been submitted along with a request for abatement of the charge relating to the increase in storage capacity at the site. Whilst it is acknowledged that the EA will wish to assess any associated risks with this increase, it is also noted that the types of wastes being stored are unchanged and the silos will be on a foundation pad and to the same design and safety specification as the existing ones so do not pose any additional risk. A 90% reduction in the part of the fee relating to the temporary storage of waste is being requested, to a level that better reflects the effort required to assess this change. This is consistent with the agreement made with the EA for the application made for the Leeds facility 3<sup>rd</sup> line. This would result in a refund of £10,950.30 to the applicant.