

Application for an environmental permit

Part C2 – General – varying a bespoke permit



Fill in this part of the form, together with part A and the relevant parts of C3 to C7 and part F1 or F2, if you are applying to vary (change) the conditions or any other part of the permit. Please check that this is the latest version of the form available from our website.

You only need to give us details in this application for the parts of the permit that will be affected (for example, if you are adding a new facility or changing existing ones).

Waste operation changing to installation or vice versa?

If your changes mean that a waste operation becomes an installation (or vice versa) you also need to fill in either part C3 (waste to installation) or part C4 (installation to waste).

You do not need to resend any information from your original permit application if it is not affected by your proposed changes.

Please read through this form and the guidance notes that came with it.

The form can be:

- 1) saved onto a computer and then filled in. Please note that the form follows a logic that means questions will open or stay closed depending on a previous answer. So you may not be able to enter text in some boxes.
- 2) printed off and filled in by hand. Please write clearly in the answer spaces.

It will take less than two hours to fill in this part of the application form.

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Appendix 1 – Low impact installation checklist

Appendix 2 – Date of birth information for Relevant offences and/or Technical ability questions only

1 About the permit

Note: If you are applying to convert your existing permit to a standard permit or add a standard facility you need to fill out form C1.

1a Discussions before your application

If you have had discussions with us before your application, give us the permit reference or details on a separate sheet. Tell us below the reference you have given this extra sheet.

Permit or document reference

EPR/BB3007CA/V006

1b Permit number

What is the permit number that this application relates to?

EPR/BB3007CA

1c Site details

What is the name, address and postcode of the site?

Site name

Old Quarrington Quarry Landfill

Address

Old Quarrington

Bowburn

County Durham

Postcode

DH6 5NN

2 About your proposed changes

2a Type of variation

What type of variation are you applying for?

Minor technical

Normal variation

Substantial

2 About your proposed changes, continued

2b Changes or additions to existing activities

Please give us brief details in the box below. More detailed information can be given in Table 1 below.

This application is to add a new area of land to the permitted landfill boundary. The boundary will be extended to include an escarpment at the southern boundary of the site, which is to be removed and replaced with imported inert waste.

Fill in Table 1 with details of all the proposed changes to current activities. In the final column of the table, give us the document reference for the proposed changes and send them to us with your filled in application form.

Fill in a separate table for each activity you are applying to vary or add. Use a separate sheet if you have a long list and send it to us with your application form. Tell us below the reference you have given this document.

Document reference

You only need to fill in one table for your mining waste operations.

2c Consolidating (combining) or updating existing permits

If your proposed change is to modernise (update) your permit, now answer 2c1; otherwise go to 2d.

If your proposed change is to consolidate (combine) a number of permits, now answer 2c2; otherwise go to 2d.

Note: In both cases we may require additional information from you about, for example, your management system. Therefore we would always advise you to talk to us before you submit any application to modernise or consolidate permits.

2c1 Do you want to have a modern style permit?

No

Yes

2c2 Identify all the permits you want to consolidate (combine) by listing the permit numbers in Table 2 below

Table 2 – Permit numbers

2d Treating batteries

2d Are you proposing to treat batteries?

No

Yes Tell us how you will do this and send us a copy of your explanation and tell us below the reference you have given this explanation

Document reference for the explanation

2e Ship recycling

2e1 Is your activity covered by the Ship Recycling Regulations 2015? (See the guidance notes on part C2.)

No

Yes Tell us how you will do this. Please send us a copy of your explanation and your facility recycling plan, and tell us below the reference numbers you have given these documents

Document reference for the explanation

Document reference for the facility recycling plan

2e2 Is this a renewal of an existing authorisation covered by the Ship Recycling Regulations 2015?

No

Yes Tell us the expiry date of your existing authorisation (DD/MM/YYYY)

2 About your proposed changes, continued

Table 1 – Changes to existing activities

Fill in Table 1 with details of all the proposed changes to current activities. In the final column of the table, give us the document reference for the proposed changes and send them to us with your filled in application form.

Name	Installation schedule 1 references	Description of the installation activity	Description of waste operation	Description of the mining waste operations	Description of water discharge activity	Description of groundwater activity	Proposed changes document reference
i.e. name of installation, waste operation, mining waste operation, water discharge activity or groundwater activity							
Example – effluent unique name					Example – treated sewage effluent		
If you do not have enough room, go to the line below or send a separate document and give us the document reference here							
Old Quarrington			Inert Landfill				Permit boundary
Quarry Landfill							extension - see Non
							Technical Summary

2 About your proposed changes, continued

2f Low impact installations (installations only)

2f1 Will any changes mean that any of the regulated facilities will become low impact installations?

No Now go to section 3

Yes If yes, tell us how you meet the conditions for a low impact installation (see the guidance notes on part C2 – Appendix 1)

Document reference

Tick the box to confirm you have filled in the low impact installation checklist in appendix 1 for each regulated facility

3 Your ability as an operator

If you are applying to add waste installations or waste operations to a permit that has not previously had them, you need to fill in all of section 3.

If you are applying to consolidate (combine) two or more permits or have an updated permit you must fill in question 3d.

This section does not apply for applications to surrender a permit.

3a Relevant offences

Installations and waste operations only (see the guidance notes on part C2).

3a1 Have you, or any other relevant person, been convicted of any relevant offence?

No Now go to question 3b

Yes Please give details below

Name of the relevant person

Title (Mr, Mrs, Miss and so on)

First name

Last name

Position held at the time of the offence

Name of the court where the case was dealt with

Date of the conviction (DD/MM/YY)

Offence and penalty set

Date any appeal against the conviction will be heard (DD/MM/YYYY)

If necessary, use a separate sheet to give us details of other relevant offences and tell us below the reference number you have given the extra sheet.

Document reference

Now go to question 3b

Please also complete the details in Appendix 2.

3b Technical ability

Specified waste management activities and waste operations only (see the guidance notes on part C1).

Please indicate which of the two schemes you are using to demonstrate you are technically competent to operate your facility and the evidence you have enclosed to demonstrate this.

ESA/EU skills

I have enclosed a copy of the current Competence Management System certificate

CIWM/WAMITAB scheme

Please select **one** of the following:

• I have enclosed a copy of:

- the relevant qualification certificate/s

or

- evidence of deemed competence

or

3 Your ability as an operator, continued

- Environment Agency assessment
- or
- evidence of nominated manager status under the transitional provisions for previously exempt activities

and, if deemed competent or Agency-assessed, or if there is evidence of a nominated manager, or if the original qualification is over two years old:

I have enclosed a copy of the relevant current continuing competence certificate/s

For each technically competent manager please give the following information. If necessary, use a separate sheet to give us these details and tell us below the document reference you have given the extra sheet.

Title (Mr, Mrs, Miss and so on) _____

First name _____ No change to the Technically Competent Manager _____

Last name _____

Phone _____

Mobile _____

Email _____

Please provide the environmental permit number/s and site address for all other waste activities that the proposed technically competent manager provides technical competence for, including permits held by other operators. Continue on a separate sheet as required.

Permit number	Site address	Postcode

Document reference _____

Now go to question 3c

Please also complete the details in Appendix 2.

3c Finances

Installations, waste operations and mining waste operations only (see the guidance notes on part C2).

Please note that if you knowingly or carelessly make a statement that is false or misleading to help you get an environmental permit (for yourself or anyone else), you may be committing an offence under the Environmental Permitting (England and Wales) Regulations 2016.

Do you or any relevant person or a company in which you were a relevant person have current or past bankruptcy or insolvency proceedings against you?

No

Yes Please give details below, including the required set-up costs (including infrastructure), maintenance and clean up costs for the proposed facility against which a credit check may be assessed

We may want to contact a credit reference agency for a report about your business's finances.

3 Your ability as an operator, continued

Landfill, Category A mining waste facilities and mining waste facilities for hazardous waste only

How do you plan to make financial provision (to operate a landfill or a mining waste facility you need to show us that you are financially capable of meeting the obligations of closure and aftercare)?

Renewable bonds

Cash deposits with the Environment Agency

Other – provide comprehensive details

Document reference

Provide a cost profile and expenditure plan of your estimated costs throughout the aftercare period of your site.

Document plan reference

Now go to question 3d

3d Management systems

You must have an effective, written management system in place that identifies and reduces the risk of pollution. You may show this by using a certified scheme or your own system.

Your permit requires you (as the operator) to ensure that you manage and operate your activities in accordance with a written management system.

You need to be able to explain what happens at each site and which parts of the overall management system apply. For example, at some sites you may need to show you are carrying out additional measures to prevent pollution because they are nearer to sensitive locations than others.

You can find guidance on management systems on our website at www.gov.uk/government/organisations/environment-agency.

Tick this box to confirm that you have read the guidance and that your management system will meet our requirements

What management system will you provide for your regulated facility?

ISO 14001

BS 8555 (Phases 1–5)

Acorn

Green dragon

Own management system

Please make sure you send us a summary of your management system with your application.

Document reference/s

4 Consultation

Fill in 4a to 4c for installations and waste operations and 4d for installations only.

Could the waste operation or installation involve releasing any substance into any of the following?

4a A sewer managed by a sewerage undertaker?

No

Yes Please name the sewerage undertaker

4b A harbour managed by a harbour authority?

No

Yes Please name the harbour authority

4c Directly into relevant territorial waters or coastal waters within the sea fisheries district of a local fisheries committee?

No

Yes Please name the fisheries committee

4 Consultation, continued

4d Is the installation on a site for which:

4d1 a nuclear site licence is needed under section 1 of the Nuclear Installations Act 1965?

No

Yes

4d2 a policy document for preventing major accidents is needed under regulation 5 of the Control of Major Accident Hazards Regulations 2015, or a safety report is needed under regulation 7 of those Regulations?

No

Yes

5 Supporting information

5a Provide a plan or plans for the site

See the guidance notes on part C2 for what needs to be marked on the plan.

Clearly mark the site boundary or discharge point, or both. Also include site drainage plans, site layout plans, and plant design drawings/process flow diagrams (as required). (See the guidance notes on part C2.)

Document reference/s of the plans

Q003-00197-47

5b Do any of the variations you plan to make need extra land to be included in the permit?

No

Yes Please provide a site report for the extra land

Document report reference/s

Environmental Setting and Site Design (ESSD) report

5c Provide a non-technical summary of your application

Document reference of the summary

Non-Technical Summary

5d Risk of fire from sites storing combustible waste

Are you applying for an activity that includes the storage of combustible wastes?

(This applies to all activities excluding standalone water and groundwater discharges.)

No Go to question 5f

Yes Go to question 5e

5e Will your variation increase the risk of a fire occurring or increase the environmental risk if a fire occurs?

See the guidance notes on part C2.

No

Yes Provide a fire prevention plan. You need to highlight any changes you have made since your pre-application discussions

Document reference of the plan

5f Adding an installation

If you are applying to add an installation, tick the box to confirm that you have sent in a baseline report and provide a reference

Document reference of the report

6 Environmental risk assessment

If you need one, see the guidance notes on part C2.

Provide an assessment of any additional risks the proposed changes or additions to your regulated facilities poses to the environment as part of your application to vary this permit. The risk assessment must follow the methodology set out in 'Risk assessments for your environmental permit' at <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit> or an equivalent method.

Document reference for the assessment

Amenity and Accident Risk Assessment

7 How to contact us

If you need help filling in this form, please contact the person who sent it to you or contact us as shown below.

General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm)

Textphone: 03702 422 549 (Monday to Friday, 8am to 6pm)

Email: enquiries@environment-agency.gov.uk

Website: www.gov.uk/government/organisations/environment-agency

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve it.

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

Feedback

(You don't have to answer this part of the form, but it will help us improve our forms if you do.)

We want to make our forms easy to fill in and our guidance notes easy to understand. Please use the space below to give us any comments you may have about this form or the guidance notes that came with it.

How long did it take you to fill in this form? _____

We will use your feedback to improve our forms and guidance notes, and to tell the Government how regulations could be made simpler.

Would you like a reply to your feedback?

Yes please

No thank you



For Environment Agency use only

Date received (DD/MM/YYYY)

Our reference number

Payment received?

No

Yes Amount received

£ _____

Plain English Campaign's Crystal Mark does not apply to appendix 1.**Appendix 1 – Low impact installation checklist**

Installation reference			
Condition	Response		Do you meet this?
A – Management techniques	Provide references to show how your application meets A		Yes <input type="checkbox"/>
	References		No <input type="checkbox"/>
B – Aqueous waste	Effluent created		m ³ /day
C – Abatement systems	Provide references to show how your application meets C		Yes <input type="checkbox"/>
	References		No <input type="checkbox"/>
D – Groundwater	Do you plan to release any hazardous substances or non-hazardous pollutants into the ground?		Yes <input type="checkbox"/>
			No <input type="checkbox"/>
E – Producing waste	Hazardous waste		Tonnes per year
	Non-hazardous waste		Tonnes per year
F – Using energy	Peak energy consumption		MW
G – Preventing accidents	Do you have appropriate measures to prevent spills and major releases of liquids? (See 'How to comply'.)		Yes <input type="checkbox"/>
			No <input type="checkbox"/>
	Provide references to show how your application meets G		
	References		
H – Noise	Provide references to show how your application meets H		Yes <input type="checkbox"/>
	References		No <input type="checkbox"/>
I – Emissions of polluting substances	Provide references to show how your application meets I		Yes <input type="checkbox"/>
	References		No <input type="checkbox"/>
J – Odours	Provide references to show how your application meets J		Yes <input type="checkbox"/>
	References		No <input type="checkbox"/>
K – History of keeping to the regulations	Say here whether you have been involved in any enforcement action as described in Compliance History Appendix 1 explanatory notes	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Appendix 2 – Date of birth information for Relevant offences and/or Technical ability questions only

Date of birth information in this appendix will not be put onto our Public Register

Have you filled in the Relevant Offences question?

Yes

No

Have you filled in the Technical ability question?

Yes

No

2 Relevant Offences - date of birth information

Please give us the following details

Name

Date of birth (DD/MM/YY)

3 Technical ability - date of birth information

Name

Date of birth (DD/MM/YY)

Question 1a

Enhanced Pre-Application Response Letter

Mr Matthew Barnett
Tarmac Trading Limited
Old Quarrington Quarry, Bowburn,
County Durham, DH6 5NN

Our reference: EPR/BB3007CA/V006
Date: 17/08/2021

Dear Mr Matthew Barnett

Pre application advice – Enhanced service

Site: Tarmac Trading Limited, Old Quarrington Quarry, Bowburn, County Durham, DH6 5NN

Thank you for your pre application enquiry on 17/03/2021.

I am pleased to provide you with your enhanced level of pre-application advice. This advice is based on the information provided on your pre application advice form and conversations/emails recorded on the following dates:

- Enhanced pre-application telecom between the Environment Agency, Tarmac Trading Limited, and Wardell Armstrong was held on 21/07/2021 to discuss the topics within Appendix 1; meeting outcomes are outlined in Appendix 2.

What enhanced pre application covers

Further information on the enhanced pre-application service is detailed on section 2 of the [Environmental permitting charges guidance on GOV.UK](#).

As part of this service we have provided you with the following information:

Application reference number	EPR/BB3007CA/V006
Documents attached	We reviewed the following document: <ul style="list-style-type: none"> Old Quarrington And Cold Knuckle Quarry Pre-Application Report – Current Understanding And Proposed Approach For A Variation To Existing Environmental Permit (Epr/Bb3007ca) (Wardell Armstrong LLP, March 2021)
Application charge required	£6,602, reference 1.17.7 under EA charging scheme

customer service line 03706 506 506

floodline 03459 88 11 88

incident hotline 0800 80 70 60

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Application reference number	EPR/BB3007CA/V006
Forms required to be submitted	Application forms can be found on our Change, transfer or cancel your environmental permit guidance . Part A; Part C2; Part C4; and Part F1.
Additional information	<p>In response to the enhanced pre-application telecom on 21/07/2021 we have provided the following response:</p> <ol style="list-style-type: none"> 1. We confirm that the quantitative risk assessment approach discussed in the pre-application meeting, subject to the comments and action responses set out above, is appropriate to support the variation application. A revised Hydrogeological Risk Assessment Report based around a LandSim assessment of rogue loads is to be submitted with the application. 2. <ol style="list-style-type: none"> a) We confirm that the new groundwater compliance monitoring well locations described in the pre-application meeting are appropriate. b) We confirm that the applicant may propose interim groundwater compliance limits as part of the variation application. The EA will set permit conditions requiring final limits to be proposed when sufficient monitoring data is available. The EA typically requires a minimum of 12 datasets collected over a 1 year period for this purpose. 3. We confirm this should be considered a normal variation. 4. We confirm a noise management plan and noise impact assessment

Application reference number	EPR/BB3007CA/V006
	<p>would not be required for this variation (based on the information contained in the pre-application report and discussion during the telecom). You should still consider noise within any risk assessments.</p> <p>Additional matters informed by the pre-application HRAR have been discussed as set out above and in the minutes of the 21/07/2021 meeting between the EA and WA/Tarmac. Information has been provided by WA which suggests that the questions and concerns raised by the EA will be appropriately addressed in the application supporting documents. The Environment Agency notes however that no permitting decision should be inferred from this consultation response; the application will be determined on its merits on receipt.</p>

A complete application must contain the following information below:

Declaration	Please ensure the declaration section is completed by each relevant person. For a limited company, this must be a director/company secretary as listed on Companies House.
Site Plan	Site plan must be clearly marked with the full site boundary
Payment	Please note your application will not be processed until we receive the full payment.

What happens next?

If you submit an environmental permit application then please quote this pre-application reference number: EPR/BB3007CA/V006

If the advice above details using the [online digital application form](#), your application can be submitted using this method. If not, please send your completed application documents via email to:

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floodline 03459 88 11 88

incident hotline 0800 80 70 60

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psc@environment-agency.gov.uk

Please email applications where possible. If email is not possible you can submit by post to:

Environment Agency, Permitting Support Centre, Quadrant 2, 99 Parkway Avenue, Sheffield, S9 4WF

We are currently experiencing delays processing paper applications. Any applications submitted via post will be stored at the Permitting Support Centre until we are able to process them. For further information, please check our latest operational update on the [Environment Agency website](#).

Current application timescales

Our current queues are large and we are taking longer than usual to allocate work for initial assessment, known as duly making. The table below shows our estimated queue times by application type. Please note, this is based on our average times and some applications may be picked up before or after the timescales listed below.

Application type	Estimated time to allocation
Normal variation	20-22 weeks

Disclaimer

The advice given is based on the information you have provided, and does not constitute a formal response or decision of the Environment Agency with regard to future permit applications. Any views or opinions expressed are without prejudice to the Environment Agency's formal consideration of any application. Please note that any application is subject to duly making and then full technical checks during determination, and additional information may be required based on your detailed submission and site specific requirements and the advice given is to address the specific pre-application request.

This advice covers waste only.

Other permissions from the Environment Agency and/or other bodies may be required for associated or other activities.

Enhanced pre application cost estimate

At this stage the pre-application advice is expected to cost up to £1000 plus VAT. An invoice will be sent separately at a later date.

This pre-application request is now closed.

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incident hotline 0800 80 70 60

floodline 03459 88 11 88

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We consider this pre application request is now closed however if you have any questions regarding this letter please contact James O'Callaghan: james.ocallaghan@environment-agency.gov.uk.

If you require additional enhanced pre-application advice please complete our [online form](#).

We look forward to working with you on this project.

If you have any questions please call 03708 506 506.

Yours sincerely,

James O'Callaghan

james.ocallaghan@environment-agency.gov.uk

Appendix 1 – Discussion topics for the pre-application meeting

Following a review of the HRAR and internal consultation, GOT requested a meeting with the Tarmac Trading Limited and Wardell Armstrong to discuss matters arising from the report. The following questions and discussion topics were provided in advance of the meeting:

Hydrogeological Risk Assessment

1. It is not clear whether the HRA presented at Section 7 of the pre-app report comprises the intended application HRA in full, or whether this a draft or scoping report for discussion and further refinement.
2. Contradictory statements are made regarding the nature of the risk assessment required. At 7.1.2 it is stated that a generic quantitative risk assessment is required to assess the risk posed by the landfill due to its hydrogeologically sensitive location. Conversely at 7.3.2 it is stated that a quantitative risk assessment is not required because the site will receive inert waste only.
3. Notwithstanding the above contradictions, no quantitative risk assessment is provided. As a minimum we would expect to see a quantitative assessment of the potential risk posed by inadvertent acceptance of non-compliant wastes into the site (a so-called 'rogue load' assessment).

Requisite Surveillance

4. We confirm the design and proposed locations of the new down-gradient groundwater monitoring boreholes are acceptable. We also confirm that the proposed groundwater compliance and routine monitoring suite and frequencies as set out in 9.1.5 are acceptable. We note that if during drilling groundwater is encountered in the strata overlying the Coal Measures then the design of the new wells may need to be amended to ensure these additional water bearing units are monitored.
5. We note the proposals to carry out an expedited monitoring programme following installation of the new wells. In principle this is acceptable however we will confirm the details of this proposed programme and how this will be used to derive compliance limits for the new wells in our forthcoming meeting.
6. The report's conclusions at 10.1.2 state 'WA believes that current monitoring scheme employed on-site provides enough evidence to show that current landfilling poses no risk to the surrounding environment'. Before accepting this conclusion we will need an explanation for the apparent rising trends in electrical conductivity, TOC, chloride,

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sulphate, and potassium in some or all of the surface water monitoring points SW1-SW3 down-gradient of the site.

Site Conceptual Model

7. We would like to see the SCM developed further. While we understand that the cross-sectional drawing Q003-00197-46 is focussed on the Cold Knuckle extension area to which the application will apply, we request that this section be extended to the northern site boundary and augmented with an additional section trending west to east in order to complete our understanding of the site's hydrogeological setting. The drawing should include indicative locations of the groundwater monitoring boreholes together with log data where available.

8. We request that some details on cross-sectional drawing Q003-00197-46 are clarified:

- a) The drawing shows a 'surveyed and tested' attenuation layer which we infer is either the Marl Slate or the 1m thick crushed dolostone layer referred to in the report. It appears this attenuation layer may lie above the intended base of the new Cold Knuckle cells, and possibly above some of the existing Old Quarrington cells which have yet to be developed. Clarification on this is sought.
- b) No information on the referenced survey and testing of the attenuation layer is included in the pre-application report and we ask that this be provided.
- c) The indicated groundwater piezometric surface in the Coal Measures does not align with the statements in the report e.g. at 6.4.2 that 'dampness' encountered in the Yellow Sands Formation boreholes suggests groundwater continuity between the Yellow Sands and the Coal Measures.

9. We note that groundwater elevations in well QUA-05 shown on the groundwater hydrograph figure at Appendix 3 are significantly higher than those in P-03, which is considered to be the up-gradient well. The presence of groundwater in QUA-05 at depths approaching 10m at times does not appear to support the statements at various points of the report that the limestone and sand units above the Coal measures are essentially dry. We note however that borehole QUA-06 near to QUA-05 is reported as dry, as are other boreholes further distant. We wonder if borehole QUA-05 groundwater data has been discounted as anomalous, and speculate that perhaps it is receiving infiltration from what appears to be an adjacent surface water pond seen on the aerial photography in the appended drawings. Have the elevated water levels in this well been accounted for?

10. The Marl Slate is variously described in the report as functioning both as a low permeability aquiclude limiting recharge to the underlying Yellow Sands, and as being

heavily fractured and thereby facilitating under-drainage through the Yellow Sands to the Coal Measures east of the site. How is this apparent contradiction accounted for?

Geological Barrier

11. At 7.2.3 the report states that ‘as the site accepts inert waste the geological barrier need only be nominal to ensure compliance’ and proposes the use of a 1m layer of crushed dolostone to act as an artificial geological barrier. This barrier must meet the minimum required standard of a basal and sidewall layer 1m thick with a permeability of less than or equal to 1×10^{-7} m/s (or equivalent), and not merely be ‘nominal’. The applicant must confirm that this minimum specification will be met, including in those existing cells/phases which have yet to receive waste. The operator will be required by the permit to show conformance with this specification through a Construction Quality Assurance programme covering the engineering of the geological barrier.

12. As noted in the comments on the Site Conceptual Model above, there is some uncertainty as to the location and nature of the existing and proposed geological barrier (‘attenuation layer’) shown on drawing Q003-00197-46 which requires clarification.

13. We note that the issue of geotechnical stability both of the geological barrier and the waste mass is not touched upon in the report. The application must include a stability risk assessment showing that the stability and integrity of these elements meet a suitable factor of safety against failure.

Appendix 2 – Meeting Outcomes

A telecom between the Environment Agency, Tarmac Trading Limited, and Wardell Armstrong was held on 21/07/2021. In summary the responses were as follows:

Q1 - The HRA has been developed further and will be submitted in amended form to support the variation application.

Q2, Q3 – By the time of the meeting a quantitative LandSim model to assess a rogue load scenario had already been developed by WA. An action was taken by the EA to confirm whether the modelled source term determinands were deemed appropriate (see ACTIONS below).

Q4 – WA confirmed that the new wells had already been installed. The EA were satisfied with the installation locations and construction so far as the information provided on this.

Q5 – WA anticipated 4-5 months of data being available to derive groundwater compliance limits and will propose interim limits. EA agreed this is an acceptable approach and will set pre-operational or improvement conditions in the varied permit as appropriate to ensure final limits are set when more data has been acquired from the new wells.

Q6 – WA are continuing to refine the site conceptual model in order to fully understand all viable source-pathway-receptor relationships which could account for the rising trends in some determinands at SW1-SW3. This will form part of the application HRA.

Q7, Q8 – The Site Conceptual Model drawings are being re-worked to provide greater scope and clarity and remove contradictory elements.

Q9 – EA and WA agreed that the QUA-05 groundwater level data is anomalous and potentially influenced by surface infiltration. As such this well's data may be set aside.

Q10 – The HRA has been amended to represent the Marl Slate as a low permeability unit.

Q11 – Full CQA testing is available to show that the existing man-made geological barrier meets the required minimum specification. Future phases will also be engineered under CQA supervision to meet the required performance criteria.

Q12 – Addressed per Q7 & Q8

Q13 – A Stability Risk Assessment will be submitted in support of the variation application.

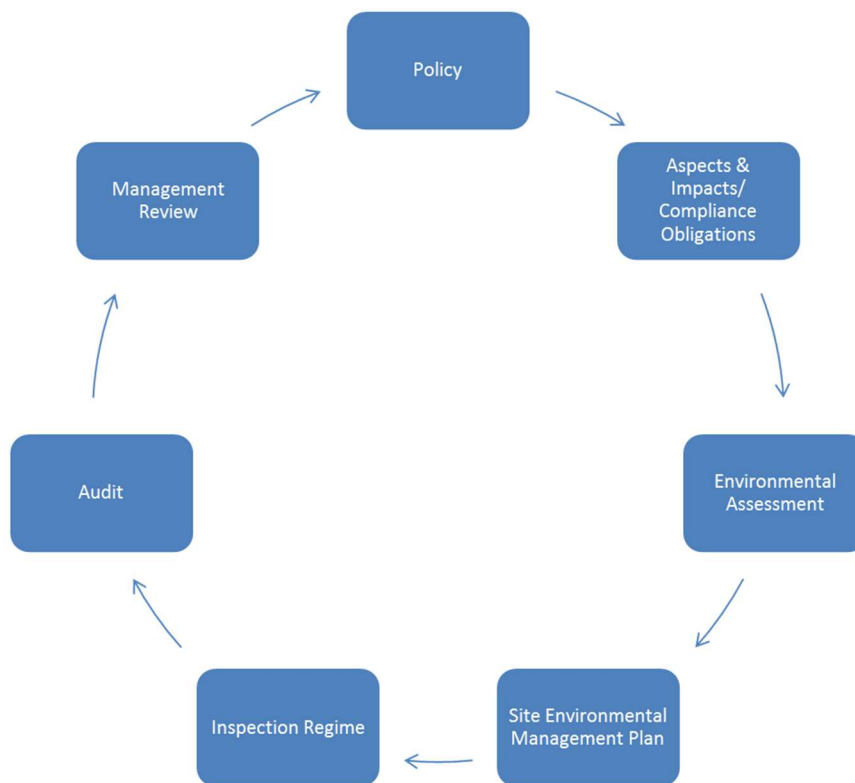
Question 3d
EMS Summary

Old Quarrington Inert Waste Landfill Site

Summary of Environmental Management System (V3)

1. Background

Tarmac Trading Limited (Tarmac) has in place an Environmental Management System (EMS) that is certified to the international standard: ISO 14001. The site will be operated under the overarching Core EMS which covers a number of Tarmac sites across the UK. The specific EMS procedures to support the operation of this type of regulated facility under an Environmental Permit in England have been developed with reference to relevant guidance produced by the Environment Agency. The EMS follows the Plan Do Check Act (PDCA) cycle described in Environment Agency guidance “How to comply with your environmental permit”¹ as illustrated below:



A copy of the EMS will be held at the site and will be available for inspection once the site is operational following the issue of the Environmental Permit for the site. A summary of the key elements of the EMS is provided below. Environment Agency guidance ‘Develop a management system: environmental permits’², has also been considered.

¹How to comply with your environmental permit. Document 433_11 (Version 6 - June 2013)

²Develop a management system: environmental permits GOV.UK

2 Company Environmental Policy

The EMS is underpinned by the company Environmental Policy which outlines how it expects operations to be managed and its environmental performance to be communicated to its stakeholders and to enable the effective deployment of the related principles across its operational sites.

Tarmac is committed to preventing its activities polluting the environment and the continual improvement of its environmental performance. Through a dedicated environmental and sustainability panel business objectives are developed. Environmental performance measures are also monitored by these forums and targets set to enable performance levels to be continuously improved.

Tarmac aims to minimise the environmental impact of its activities by:

- regularly monitoring the effective deployment of the EMS through a series of graded audits
- prior to undertaking work on behalf of Tarmac, all sub-contract personnel will be made aware of site-specific environmental concerns and vulnerabilities through the site induction process
- reducing the amount of waste materials generated by their activities; attempting to recycle and reuse such materials wherever practical and where this is not achievable, disposing of such waste in a responsible manner
- seeking to use raw materials in an efficient manner, replacing them with substitute recycled raw materials where practicable and safe to do so
- promoting the efficient and reduced use of water, fuels and energy, thereby reducing carbon emissions and mitigating the potential for climate change
- purchasing, utilising and storing materials in a manner which poses minimal risk to both individuals and the environment, as far as is practical.

The EMS will be deployed effectively through the company's management organisation. Managers and employees will be assigned environmental responsibilities and will be expected to play a full and active part in managing the environmental aspects of the activities for which they have responsibility. Operational management will be supported by a team of competent advisors and performance will be monitored by environmental auditors.

3 Company Environmental Standards

All operational sites will be the subject of an Environmental Assessment and will maintain an up to date Site Environmental Management Plan (SEMP).

4 Site Operations

Site Infrastructure Plan

It is a requirement of the EMS that the site develops a Site Plan showing the general layout and proximity to sensitive areas and a Water Management Plan.

Waste specific aspects

The following aspects have been identified having regard to the protection of the environment, compliance with any environmental permits and the highest standards of operation. These are in addition to the core company aspects.

The following aspects relevant to the inert waste landfill at Old Quarrington Landfill Site will be managed in accordance with any relevant company policies and procedures, site authorisations and statutory obligations.

1. Dust and particulate matter
2. Mud, litter and other debris
3. Noise
4. Security
5. Waste acceptance and rejection
6. Water management
7. Working face operations

In addition there are specific procedures that cover Landfill and Recycling operations.

Environmental Impact Review

The site manager shall be responsible for the Environmental Impact Review of the operations, in normal and abnormal conditions, to identify the key environmental aspects of its activities. Through this process the aspects of the operations, that may have a significant impact on the environment, can be identified, prioritised for corrective action and improvement together with an evaluation of legal compliance at the site. The site manager/supervisor, together with representatives from the site/area and the compliance and environmental permitting personnel

shall identify and prioritise the potential significant environmental impacts of the operations. The potential impacts most relevant to the inert waste landfill at Old Quarrington Landfill Site have been identified to be:

1. Bio-diversity and Ecological Management Visual Impact
2. Dust
3. Fuel & Chemical Storage
4. Gaseous emissions monitoring (inert landfill)
5. Groundwater monitoring Management (inert landfill)
6. Legislation and Documentation
7. Noise
8. Solid Waste Management
9. Vegetation Management
10. Vibration
11. Traffic

Site Environmental Management Plan

The Environmental Assessment provides the prioritised potential significant environmental impacts for inclusion in the SEMP. The plan shall identify objective(s) and target(s) for each significant impact and ensure that they are relevant to achieving the overall objectives of the Business Unit. The objective (the improvement action) shall be specific to the corrective/preventative action. The target for the improvement shall have a date for completion, the person responsible for the action and verification of the completion by the authorising person. The SEMP shall be reviewed regularly and shall be consistent with legislation, environmental procedures and the Tarmac environmental policy. The SEMP may be updated at anytime in order to implement changes/corrective actions identified by any management mechanism.

Each site shall undertake all necessary monitoring and measuring of operational activities, as required by legislation, such as environmental permits and planning consents. All such monitoring and measuring information shall be documented and recorded on a monitoring schedule.

The SEMP also includes **Accident Prevention and Management Plans, Emergency Contact Details and Contingency Plans.**

6. Environmental occurrence/non-conformance reporting system (including complaints)

The environmental occurrence/non-conformance reporting system has been developed in order to document, investigate and mitigate significant impacts on the environment and for initiating and implementing corrective and preventative action. All incidents shall be reported, whether or not an external person/agency is involved. Any system non-conformances are also to be documented for corrective and preventative action.

7 Inspection regime and audit

The Environment Manager shall establish and monitor an annual inspection programme ensuring that all sites are audited by an 'independent' manager who has no responsibility for the site. The auditor shall complete an associated audit summary sheet, agreeing and summarising as necessary a list of recommended actions in consultation with the site manager. The audit summary sheet shall then be included in the SEMP and priorities and timescales assigned. A date for a follow-up visit to ensure close out of any actions has been completed will be set up by the visiting auditor and the manager/ supervisor. The follow up visit must also be used to ensure previous actions implemented are continuing to work and are effective.

8. Site and Equipment Maintenance Plan

The site will have a planned preventative maintenance programme in place for plant and equipment in accordance with manufactures recommendations. Plant and equipment is subject to routine inspection.

9. Managing Staff Competence and Training Records

A technically competent manager will be allocated to the site with the appropriate WAMITAB qualification. Employees will be suitably experienced and trained to ensure they are competent to carry out their duties. Particular attention will be given to the familiarisation of the staff with the Environmental Permit and potential emissions and prevention of accidental emissions. Training will be recorded in accordance with the Company procedures. Contractors employed at the site will undergo a site induction and competency will be checked.

10. Record Keeping

Records will be kept in accordance with the requirement of the Environmental Permit, Landfill and Recycling Operating Procedures and core procedures within the EMS.

11. Management Review

There will be a tiered review of the EMS at top management level, local area level and at site management level including the procedures, environmental policy and the objectives and targets for the company in order to support its ongoing effectiveness, suitability, adequacy and stability.