Oaktree Environmental Limited

North West Office
Unit 5, Oasis Park, 19 Road One **Tel: 01606 558833**
Winsford Industrial Estate
Winsford, Cheshire CW7 3PP **Fax: 01606 861182**

Permit Support Centre
Environment Agency
Quadrant 2
99 Parkway Avenue
Parkway Business Park
Sheffield S9 4WG

Date: 8 April 2011

Our ref:2136-202-001-JE

Your ref:

Dear Sir/Madam,

ENVIRONMENTAL PERMITTING (ENGLAND & WALES) REGULATIONS 2010
APPLICATION TO VARY PERMIT EAWML 50066 TO EXTEND PERMIT BOUNDARY AND INCLUDE SOILS WASHING PLANT, MATERIALS STORAGE AND PROPOSED COMPOSTING FACILTY
APPLICANT: NICK BROOKES
LOCATION:GREEN LANE, WARDLE, CHESHIRE CW5 6DB

Please find enclosed copy of the relevant application forms and associated documents for the above.

Included with correspondence are the following:

- Application forms Part A, C2, C4 and F1.
- Application cheque for £9928
- Non Technical Summary (2136/202/NTS/01)
- Site Conditioning Report Template
- Risk Assessments
- Environmental Management System (2136/202/MS/01) and associated Appendices

If you have any questions please do not hesitate to call me on 01606 558833.

Yours faithfully,

Jan Edwards
Senior Consultant
enc.

NON TECHNICAL SUMMARY (2136/202/NTS/01)

APPLICANT:	**Nick Brookes**
SITE/LOCATION:	**Nick Brookes Recycling Centre**
PROPOSALS:	**Extend permit boundary to include the Soils Washing Plant, storage of recyclables/aggregates and future proposed composting facility.**

Application to vary Environmental Permit EAWML/ 50066
(HIC Transfer Station and recycling Centre)

The current permit allows the transfer and treatment of household, commercial and household waste and the storage of asbestos and therefore covers the construction and demolition waste recycling centre.

A soils washing plant is also provided as part of the applicant's recycling operation but falls outside the permitted area. as shown on Drawing No 202/1025/NB/12. This activity has been regulated under a Paragraph 13 waste exemption but due to the change in legislation the Environment Agency are requesting that the activity should now be permitted.

This application is therefore to add the soils washing plant and a proposed composting facility and external storage area to the existing Environmental Permit EAWML/50066 . The application also increases the permit boundary and increases the waste quantities and waste types to cover the additional activities.

A revised Environmental Management System will be in place to cover the existing waste transfer station operation, the soils washing facility, storage facility and a proposed composting operation.

Application for an environmental permit Part A – About you

You will need to fill in this part A if you are applying for a new permit, applying to change an existing permit or want to transfer an existing permit to yourself.

Please read through this form and the guidance notes that came with it. Please write clearly in the answer spaces.

It will take less than one hour to fill in this part of the application form.

Where you see the term 'document reference' on the form, give the document references and send the documents with the application form when you've completed it.

Contents

1 About you

Are you applying as an individual, an organisation of individuals (for example, a partnership), a company (this includes Limited Liability Partnerships) or a public body?

An individual	☒ Now go to section 2
An organisation of individuals (for example, a partnership)	☐ Now go to section 3
A public body	☐ Now go to section 4
A registered company or other corporate body	☐ Now go to section 5

2 Applications from an individual

2a Please give us the following details

Name

Title (Mr, Mrs, Miss and so on)	MR
First name	NICK
Last name	BROOKES
Date of birth (DD/MM/YYYY)	02/03/1971

Now go to section 6

3 Applications from an organisation of individuals

3a Type of organisation

For example, a charity, a partnership, a group of individuals or a club

3b Details of the organisation

If you are an organisation of individuals, please give the details of the main representative below. If relevant, provide details of other members on a separate sheet and tell us the document reference you have given this sheet.

Contact name

Title (Mr, Mrs, Miss and so on)	
First name	
Last name	
Date of birth (DD/MM/YYYY)	

Now go to section 6

4 Applications from public bodies

4a Type of public body

For example, NHS trust, local authority, English county council

4b Name of the public body

4c Please give us the following details of the executive

An officer of the public body authorised to sign on your behalf

Name

Title (Mr, Mrs, Miss and so on)

First name

Last name

Position

Now go to section 6

5 Applications from companies or corporate bodies

5a Name of the company

5b Company registration number

If you are applying as a corporate organisation that is not a limited company, please provide evidence of your status and tell us below the reference you have given the document containing this evidence.

Document reference

Now go to section 6

6 Your address

6a Your main (registered office) address

For companies this is the address on record at Companies House.

Contact name

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

First name NICK

Last name BROOKES

Address GREEN LANE
WARDLE
NANTWICH
CHESHIRE

Postcode CW5 6DE

Contact numbers, including the area code

Phone 01829 260 687

Fax 01829 260 556

Mobile

Email nick@nickbrookes.co.uk

For an organisation of individuals every partner needs to give us their details. So, if necessary, continue on a separate sheet and tell us below the reference you have given the sheet.

Document reference for the extra sheet

6 Your address, continued

6b Main UK business address (if different from above)

Contact name

Title (Mr, Mrs, Miss and so on)

First name

Last name: as above

Address

Postcode

Contact numbers, including the area code

Phone

Fax

Mobile

Email

Now go to section 7

7 Contact details

7a Who can we contact about your application?

This can be someone acting as a consultant or an 'agent' for you.

Contact name

Title (Mr, Mrs, Miss and so on): MS

First name: JAN

Last name: EDWARDS

Address: OAKTREE ENVIRONMENTAL LTD
UNIT 5 OASIS PARK
WINSFORD INDUSTRIAL ESTATE
WINSFORD, CHESHIRE

Postcode: CW7 3RY

Contact numbers, including the area code

Phone: 01606 558833

Fax: 01606 861182

Mobile

Email: jan@oaktree-environmental.co.uk

(acting as agent)

7b Who can we contact about your operation (if different from question 7a)?

Contact name

Title (Mr, Mrs, Miss and so on): MR

First name: NICK

Last name: BROOKES

7 Contact details, continued

Address
GREEN LANE
WARDLE
NANTWICH
CHESHIRE
CW5 6DB

Postcode

Contact numbers, including the area code

Phone 01829 260 687

Fax 01829 260 556

Mobile

Email nick@nickbrookes.co.uk

7c Who can we contact about your billing or invoice?

As in question 7a ☐

As in question 7b ☒

Please give details below if different from question 7a or 7b.

Contact name

Title (Mr, Mrs, Miss and so on)

First name

Last name

Address

Postcode

Contact numbers, including the area code

Phone

Fax

Mobile

Email

8 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: 08708 506 506 (Monday to Friday, 8am to 6pm)

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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

£

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.

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).

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. Please write clearly in the answer spaces.

It will take less than two hours to fill in this form.

Contents

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 Customer reference number

What is your customer reference number? N/A

If you do not have a customer reference number, you may leave this blank.

The customer reference number is a unique identification number which tells us who you are. It is always made up of one letter and nine numbers in this order A111111111.

1b Discussions before your application

If you have had discussions with us before your application, provide the case reference number or details on a separate sheet and tell us below the reference you have given the document.

Case or document reference N/A

1c Permit number

What is the permit number that this application relates to? EAWML/50066

1d Site details

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

Site name NICK BROOKES

Address GREEN LANE
WARDLE
NANTWICH
CHESHIRE

Postcode CW5 6DB

2 About your proposed changes

2a Type of variation

What type of variation are you applying for? (Please tick)

Standalone water discharge activity or point source groundwater activity ☐

Minor technical ☐

Normal variation ☒ X

Substantial ☐

Table 1 – Changes to existing activities

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		Addition of soils washing plant,
NICK BROOKES			Transfer Station				
			A11				plus addition of proposed future compost facility <500t as per EA Position Statement
							Refer to: 2136/202/MS/01
							and 2136/202/NTS/01

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

2 About your proposed changes, continued

2b Changes to existing activities

Fill in table 1 below 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. 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 existing permits

Identify all the permits you want to consolidate by listing the permit numbers in table 2 below.

Table 2 – Permit numbers

N/A

2d Treating batteries

Are you proposing to treat batteries?

No ☒

Yes ☐ Tell us how you will do this and send us a copy of your explanation

Document reference for the explanation

2e Low impact installations (installations only)

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

No ☐ Now go to section 4

Yes ☐

If yes, tell us how you meet the conditions for a low impact installation (see the guidance in appendix 1).

Document reference for the explanation

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 have an updated standalone water discharge permit you must fill in question 3d.

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

3 Your ability as an operator, continued

3a Relevant offences (installations and waste operations only – see the guidance notes on part C2)

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

No ☒ Now go to question 3b

Yes ☐ Please give details below

You only need to fill this in if you are applying to add waste installations or waste operations to a permit that has not previously had them.

Name of the relevant person

Title (Mr, Mrs, Miss and so on)

First name

Last name

Date of birth (DD/MM/YYYY)

Position at the time of the offence

Name of the court

Date of the conviction (DD/MM/YYYY)

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 post conviction plans if relevant) and tell us below the reference number you have given the extra sheet.

Document reference of the extra sheet

For specified waste activities only

Have you sent us a post conviction plan for this offence?

No ☐ You must send us a post conviction plan with this application and give us the document reference below

Document reference

Yes ☐ Please give us the reference for the post conviction plan you have sent and the date sent in

Post conviction plan reference

Date sent in (DD/MM/YYYY)

Now go to question 3b

3b Technical ability (specified waste management activities and waste operations only – see the guidance notes on part C2)

Please tell us which scheme you are using to show you have the suitable technical skills and knowledge to manage your facility.

AS EXISTING
Transfer station and washing plant as existing.
Compost facility proposed for future inclusion

Document reference or references for the evidence you provide to show you are keeping to your chosen scheme

Now go to question 3c

3 Your ability as an operator, continued

3c Finances (installations, waste operations and mining waste operations – see the guidance notes on part C2)

Have you or any relevant person ever been made bankrupt or had insolvency proceedings taken against you?

No ☒

Yes ☐ Please give details below

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

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)?

Bonds ☐

Escrow account ☐

Trust fund ☐

Lump sum ☐

Other ☐

Give the document reference number for the proof you are supplying

Provide a plan of your estimated expenditure on each phase of the landfill or mining waste facility.

Give the document plan reference number

Now go to question 3d

You only need to fill this in if you are applying to add waste installations or waste operations to a permit that has not previously had them.

3d Management systems

Does your management system meet the conditions set out in our guidance?

No ☐

Yes ☐

What management system will you provide for your regulated facility?

EC Eco-Management and Audit Scheme (EMAS) ☐

ISO 14001 ☐

BS 8555 (Phases 1–5) ☐

Green Dragon ☐

Own management system (see below) ☒

Own management system

You must send us a summary of your management system with your application.

Document reference or references for this summary

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 United Utilities (Wardle WwTW)

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 X

Yes ☐ Please name the fisheries committee

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 1999, 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.)

Document plan reference or references

2136/202/02; 202/1025/NB/12; 202/1025/13

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 or references

2136/202/SCP/01

5c Provide a non technical summary of your application

Document reference 2136/202/NTS/01

6 Environmental risk assessment (if you need one – see the guidance notes on part C2)

Provide an assessment of the risks each of your proposed activities cause to the environment. The risk assessment must use H1 or an equal method.

Document reference of the assessment 2136/2202/RA/01

7 How to contact us

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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 ☐

Crystal Mark 19110
Clarity approved by Plain English Campaign

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 the condition?
A – Management techniques	Provide references to show how your application meets condition A.			Yes ☐ No ☐
	References			
B – Aqueous waste	Effluent created		m^3/day	Yes ☐ No ☐
C – Abatement systems	Provide references to show how your application meets condition C.			Yes ☐ No ☐
	References			
D – Groundwater	Do you plan to release any hazardous substances or non hazardous pollutants into the ground?		Yes ☐ No ☐	Yes ☐ No ☐
E – Producing waste	Hazardous waste		Tonnes per year	Yes ☐ No ☐
	Non hazardous waste		Tonnes per year	
F – Using energy	Peak energy consumption		MW	Yes ☐ No ☐
G – Preventing accidents	Do you have appropriate measures to prevent spills and major releases of liquids? (See 'How to Comply'.)		Yes ☐ No ☐	Yes ☐ No ☐
	Are you applying to store or use any substance which is dangerous to the environment (as defined in the COMAH regulations) above 10% of the lower tier threshold?		Yes ☐ No ☐	
	Provide references to show how your application meets condition G.			
	References			
H – Noise	Provide references to show how your application meets condition H.			Yes ☐ No ☐
	References			
I – Emissions of polluting substances	Provide references to show how your application meets condition I.			Yes ☐ No ☐
	References			
J – Odours	Provide references to show how your application meets condition J.			Yes ☐ No ☐
	References			
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 ☐ No ☐	

Application for an environmental permit
Part C4 – Varying a bespoke waste operation permit

Fill in this part of the form, together with parts A, C2 and F1, if you are applying to vary (change) the conditions or any other part of the permit.

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 making changes to existing ones).

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. Please write clearly in the answer spaces.

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

Contents

1 What waste operations are you applying to vary?

Fill in table 1a with details of what you are applying to vary.

Fill in a separate table for each waste operation you are applying to vary. 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: 2136/202/MS/01

Types of waste accepted

For each line in table 1a, fill in a separate document to list those wastes you will accept on the site for that operation, giving the List of Wastes catalogue code and description. If you need to exclude waste from your activity or facility by restricting the description, quantity, physical nature, hazardous properties, composition or characteristic of the waste, include these in the document. Send it to us with your application form.

Table 1a – Waste operations which do not form part of an installation

Name of the waste operation	Description of the waste operation	Annex IIA or IIB (disposal and recovery) code and descriptions	Hazardous waste treatment capacity (if this applies). See note 1	Non hazardous waste treatment capacity (if this applies). See note 1
Add extra rows if you need them	Use the description from the guidance. Include any extra detail that you think would help to accurately describe what you want to do			
NICK BROOKES	Currently A11 Transfer station	D15, D13, D14, D9 R3, R4, R5	<10 TONNES/DAY <10 TONNES STORAGE	>75,000 TONNES/YR <50 TONNES/DAY FOR DISPOSAL
	Add A16 Soils washing plant	R13, R5, D9, D13, D15	N/A	<150,000TONNES/YR <50 TONNES/DAY FOR DISPOSAL
	Add A22 Composting operation	R3, R13	N/A	<500 TONNES HANDLED AT ANY ONE TIME
For all waste operations	Total storage capacity (see note 2)		<10 TONNES	<15,000 TONNES
	Annual throughput (tonnes each year)		<2,500 TONNES	300,000 TONNES

Notes

1 By 'capacity', we mean the total landfill capacity (cubic metres) for landfills, the total treatment capacity (tonnes each day) for waste treatment and the total storage capacity (tonnes) for waste storage operations.

2 By 'total storage capacity', we mean the maximum amount of waste in tonnes you store on the site at any one time.

1 What waste operations are you applying to vary?, continued

Please provide the document reference. You can use table 1b as a template.

If you want to accept any waste with a code ending in 99, you must provide more information and a full description in the document.

Document reference: 2136/201/MS/01

Table 1b – Template example – types of waste accepted and restrictions

Waste code	Description of waste
Example 02 01 08* 06 01 02*	Example Agrochemical waste containing dangerous substances Hydrochloric acid

1c Deposit for recovery purposes (see the guidance notes on part C4)

Are you applying for a waste recovery activity involving the permanent deposit on waste on land for construction or land reclamation?

No ☐

Yes ☐

Have we told you during discussions we have had with you before your application that we believe the activity is waste recovery?

No ☐

Yes ☐

Have there been any changes to your proposal since the discussions?

No ☐

Yes ☐

Please send us a copy of your waste recovery plan that complies with Regulatory Guidance Note 13. You need to highlight any changes made since the discussions and tell us below the reference you have given this document.

Document reference of the justification

2 Emissions to air, water and land

Fill in table 2 below with details of the emissions that result from the operating techniques at each of your waste operations.

Fill in one table for each waste facility.

Table 2 – Emissions

Name of the waste operation	NICK BROOKES RECYCLING CENTRE			
Point source emissions to air	SEE 2136/202/MS/01			
Emission point reference and location	Source	Parameter	Quantity	Unit
N/A				
Point source emissions to water (other than sewers)	n/a			
Emission point reference and location	Source	Parameter	Quantity	Unit
N/A				

2 Emissions to air, water and land, continued

Table 2 – Emissions, continued

Point source emissions to sewers, effluent treatment plants or other transfers off site				
Emission point reference and location	Source	Parameter	Quantity	Unit
S/W DISCHARGE TO				
WARDLE WWTW				
Point source emissions to land	SEE 2136/202/MS/01			
Emission point reference and location	Source	Parameter	Quantity	Unit

Supporting information

3 Operating techniques

3a Technical standards

Fill in table 3a for each operation referred to in table 1a above and list the relevant technical guidance note (TGN) or notes you are planning to use. If you are planning to use the standards set out in the TGN, there is no need to justify using them.

You must justify your decisions in a separate document if:

- there is no technical standard;
- the technical guidance provides a choice of standards; or
- you plan to use another standard.

This justification could include a reference to the Environmental Risk Assessment provided in section 7 of part C2 (General bespoke permit) of the application form.

The documents should summarise the main measures you use to control the main issues identified in the H1 assessment or technical guidance. For each of the activities listed in table 3a, describe the type of operation and the options you have chosen for controlling emissions from your process.

Table 3a – Technical standards

Fill in a separate table for each waste operation.

Waste operation		
Description of the waste operation	Relevant technical guidance note (You will need to refer to 'How to comply' for all permits)	Document reference (if appropriate)
	'How to comply'	
HIC Transfer station with treatment and asbestos storage and soils washing plant and compost facility	As per EA GUIDANCE ON WEBSITE INC RELEVANT HORIZONTAL GUIDANCE	

3 Operating techniques, continued

In all cases, describe the type of facility or operation you are applying for, and, if appropriate, use block diagrams to help describe the process. Provide the document references below.

Document reference 2136/202/MS/01

3b General requirements

Fill in a separate table for each waste facility.

Table 3b – General requirements

Name of the waste operation	NICK BROOKES RECYCLING CENTRE
If the TGN or H1 assessment shows that fugitive releases are an important issue, send us your plan for managing fugitive releases	Document reference or references 2136/202/MS/01
If the TGN or H1 assessment shows that odours are an important issue, send us your odour management plan	Document reference or references 2136/202/MS/01
If the TGN or H1 assessment shows that noise or vibration are important issues, send us your noise or vibration management plan (or both)	Document reference or references 2136/202/MS/01

3c Information for specific sectors

For some of the sectors, we need more information to be able to set appropriate conditions in the permit. This is as well as the information you may provide in sections 5, 6 and 7. For those activities listed in table 3c, you must answer the questions in the related document.

Table 3c – Questions for specific sectors

Sector	Appendix
Clinical waste	See the questions in appendix 1
Disposing of and recovering hazardous waste	See the questions in appendix 2
Recovery to land for agricultural benefit of compost like outputs from the treatment of mixed municipal solid wastes	See the questions in appendix 3
Inert landfill	See the questions in appendix 4

General information

4 Monitoring

4a Describe the measures you use for monitoring emissions by referring to each emission point in table 2 above

You should also describe any environmental monitoring. Tell us:

- how often you use these measures;
- the methods you use; and
- the procedures you follow to assess the measures.

Document reference SEE 2136/202/MS/01

4b Point source emissions to air only

Provide an assessment of the sampling locations used to measure point source emissions to air. The assessment must use M1.

Document assessment reference N/A

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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 appendices 1 to 4.

Appendix 1 – Specific questions for waste facilities that accept clinical waste

Note: If your procedures are fully in line with the standards set out in EPR5.07 then you should tick the 'yes' box and provide the procedure reference. There is no need for you to supply a copy of the procedure.

1 Are pre acceptance procedures in place that are fully in line with the appropriate measures set out in section 2.2 of EPR 5.07 and which are used to assess a waste enquiry before it is accepted at the installation or waste facility?

No ☐ Provide justification for departure from EPR 5.07 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

2 Are waste acceptance procedures in place that are fully in line with the appropriate measures set out in section 2.2 of EPR 5.07, and which are used to cover issues such as loads arriving and being inspected, sampling waste, rejecting waste, and keeping records to track waste?

No ☐ Provide justification for departure from EPR 5.07 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

3 Are waste storage, handling and dispatch procedures, and infrastructure in place that are fully in line with the appropriate measures set out in section 3.2 of EPR 5.07?

No ☐ Provide justification for departure from EPR 5.07 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

4 Are monitoring procedures in place that are fully in line with the appropriate measures set out in section 3.3 of EPR 5.07?

No ☐ Provide justification for departure from EPR 5.07 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

5 Are you proposing to either

- accept an additional waste not included in table 2.1 of section 2.1 of EPR 5.07, or
- apply a permitted activity to a waste other than that identified for that waste in table 2.1?

No ☐

Yes ☐ Provide justification

Document reference

6 Please provide a summary description of the treatment activities undertaken on the waste facility. This should cover the general principles set out in section 2.1.4 of EPR S5.07

Document reference

7 Please provide layout plans detailing the location of each treatment plant and main plant items and process flow diagrams for the treatment plant

Document reference

Appendix 2 – Specific questions for waste facilities that accept hazardous waste

Note: If your procedures are fully in line with the standards set out in SGN 5.06 then you should tick the 'yes' box and provide the procedure reference. There is no need for you to supply a copy of the procedure.

1 Are pre acceptance procedures in place that are fully in line with the appropriate measures set out in section 2.1.1 of SGN 5.06, and which are used to assess a waste enquiry before it is accepted at the waste facility?

No ☐ Provide justification for departure from SGN 5.06 and submit a copy of the procedures

Document reference

Yes ☐ Document reference

2 Are waste acceptance procedures in place that are fully in line with the appropriate measures set out in section 2.1.2 of SGN 5.06, and which are used to cover issues such as loads arriving and being inspected, sampling waste, rejecting waste, and keeping records to track waste?

No ☐ Provide justification for departure from SGN 5.06 and submit a copy of the procedures

Document reference

Yes ☒ Document reference

3 Are waste storage procedures and infrastructure in place that are fully in line with the appropriate measures set out in section 2.1.3 of SGN 5.06?

No ☐ Provide justification for departure from SGN 5.06 and submit a copy of the procedures

Document reference

Yes ☒ Document reference

4 Provide a layout plan giving details of where the waste facility is based, the infrastructure in place (including areas and structures for separately storing types of waste which may be dangerous to store together) and capacity of waste storage areas and structures

Document reference

5 Provide a summary of the treatment activities carried out on the waste facility. This should cover the general principles set out in section 2.1.4 of SGN 5.06

Document reference

6 Provide layout plans giving details of where each treatment plant is based, the main items at each plant, and process flow diagrams for the treatment plant

Document reference or references

Appendix 3 – Specific questions for the recovery to land for agricultural benefit of compost like outputs from the treatment of mixed municipal solid wastes

1 Provide an accurate and reliable characterisation of your compost like outputs (CLO). This should be based on sampling and analysis of the CLO produced by the treatment process over a 12 month period and in accordance with section 2 of TGN 6.15

Document reference

2 Provide an agricultural benefit assessment for the use of your CLO. This should be based on section 2 of TGN 6.15 and should be signed and dated by an appropriate technical expert

Document reference

3 Provide a site specific risk assessment of risks to soil and food chain receptors. This should be based on Schedule 2 of TGN 6.15 and include a map with a green outline showing the boundary of the area being treated and include

- locations where the waste will be stored and spread;
- any spring, well or borehole used to supply water for domestic or food production purposes that is within 250 metres of the area being treated;
- any spring, well or borehole not being used for domestic or food production purposes that is within 50 metres of the area being treated;
- any European designated sites (candidate or Special Area of Conservation, proposed or Special Protections Area in England and Wales or Ramsar Site) or Sites of Special Scientific Interest (SSSI) which are within 500 metres of the place where waste is to be stored or spread;
- the location of public rights of way;
- any Groundwater Source Protection Zones;
- surface watercourses; and
- any buildings or houses within 250 metres of the area being treated;
- land drains within the boundary.

Document reference

4 Are the technical standards and measures fully in line with those set out in section 3 of TGN 6.15?

Yes ☐

No ☐ Provide justification for departure from TGN 6.15 and a copy of the proposed technical standards, measures or procedures.

Document reference

Appendix 4 – Specific questions for inert landfills

1 Provide your Environmental Setting and Installation Design (ESID) report

Document reference

2 Have you completed a hydrogeological risk assessment (HRA) for the site?

Yes ☐

No ☐ Document reference

Note: For inert landfills, this is only necessary in certain cases. Refer to our guidance 'Environmental Permitting Regulations: Inert Waste Guidance, Standards and Measures for the Deposit of Inert Waste on Land'.

Web page link: http://www.environment-agency.gov.uk/business/sectors/108918.aspx

Document link: http://publications.environment-agency.gov.uk/pdf/GEHO0509BPWJ-e-e.pdf

3 Provide your stability risk assessment (SRA) for the site

Document reference

4 Have you completed a landfill gas risk assessment (LFGRA) for the site?

Yes ☐

No ☐ Document reference

Note: For inert landfills, this is only necessary in certain cases. Refer to our guidance 'Environmental Permitting Regulations: Inert Waste Guidance, Standards and Measures for the Deposit of Inert Waste on Land'.

Web page link: http://www.environment-agency.gov.uk/business/sectors/108918.aspx

Document link: http://publications.environment-agency.gov.uk/pdf/GEHO0509BPWJ-e-e.pdf

We have developed templates for these four reports which can be found within H1 – Landfill Annex.

5 Provide your proposed plan for closing the site and your procedures for looking after the site once it has closed

Document reference

Application for an environmental permit
Part F1 – Opra, charges and declarations

Fill in this part for all applications for installations, waste operations, mining waste operations and groundwater discharges onto land.

For applications for water discharge and point source groundwater discharge activities you need to fill in part F2 instead.

Please read through this form and the guidance notes that came with it. Please write clearly in the answer spaces.

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

Contents

1 Working out charges (you must fill in this section)

Please see the current environmental permitting charging scheme on our website at www.environment-agency.gov.uk which sets out our charges under the Environmental Permitting Regulations. Please remember that the charges are revised on 1 April each year.

Note: for Opra charged Tier 3 Facilities you also need to complete the Opra profile detail in table 2.

Table 1 – Working out charges

Type of application	Bespoke variation to EAWML/50066			
	Summary of charges			
Tier 2 facilities	Charge identifier	Number of facilities	Charge for each facility (£)	Charges due (£)
Tier 3 facilities				
Total Opra charging score for installations (and fill in section 2)		× charge multiplier		=
Total Opra charging score for waste operations (and fill in section 2)	73	× charge multiplier	136	= 9928
Total Opra charging score for mining waste facilities (and fill in section 2)		× charge multiplier		=
Other charges				
Total charges due				9928

2 Opra scores (does not apply to standard facilities, any other tier 2 permit applications or water-discharge or groundwater point source discharge activities)

Fill in table 2 below for your current Opra profiles at the time you make this application. Fill in

- one summary table for all installations;
- one for all waste facilities;
- one for all category A mining waste facilities and mining waste facilities for hazardous wastes; and
- one for all groundwater discharges onto land activities.

For transfers you will need to submit a revised OPRA profile to include your own Operator performance. Note: this will not change the set transfer fee.

Table 2 – Summary of Opra scores

Activity references	A11		
Complexity band	Number of activities (or individual mining waste facilities) within each band	Band score	Charging score
A			
B			
C			
D			
E			
Emissions	Band	Band score	Charging score
Air			
Water			
Land			
Sewer			
Waste input			
Offsite waste			
Other	Band	Band score	Charging score
Location			
Operator's performance			
Compliance rating			
Total Opra charging score			73

If you are submitting a bespoke application, you must include a completed electronic copy in Excel of the current Opra spreadsheet.

3 Payment

Tick below to show how you will make the payments.

Cheque	☒	
Postal order	☐	
Cash	☐	Tick below to confirm you are enclosing cash with the application
Credit or debit card	☐	
Electronic transfer (for example, BACS)	☐	

How to pay

Paying by cheque, postal order or cash

Cheque details

Cheque made payable to: ENVIRONMENT AGENCY

Cheque number: tbc

Amount: £ 9928

3 Payment, continued

You should make cheques or postal orders payable to 'Environment Agency' or 'Environment Agency Wales' as appropriate and make sure they have 'A/c Payee' written across them if it is not already printed on.

Please write the name of your company and application reference number on the back of your cheque or postal order.
We will not accept cheques with a future date on them.

Note: we will process cheques once your application is confirmed as having been duly made – normally within 10 working days unless information is missing.

We do not recommend sending cash through the post. If you cannot avoid this, please use a recorded delivery postal service and enclose your application reference details. Please tick the box below to confirm you are enclosing cash.

I have enclosed cash with my application ☐

Paying by credit or debit card

If you are paying by credit or debit card, please fill in the separate form CC1 and enclose it with the application. We will destroy your card details once we have processed your payment. We can accept payments by Visa, MasterCard or Maestro card only.

Paying by electronic transfer

Applying for a permit in Wales?

If you choose to pay by electronic transfer and you are applying for a permit in the EA Wales region, you will need to use the following information to make your payment.

Company name:	Environment Agency Wales
Company address:	PO Box 663, Cardiff, CF24 0TP
Bank:	Barclays Bank Plc Address:
	15 Queen Square, Bristol, BS1 4NP
Sort code:	20-13-42
Account number:	00440108
Payment reference number:	xxxxxxxxxxxxx

You should also email your payment details and a reference number (this can be the customer reference, permit reference or an application reference generated at pre application stage) to online@environment-agency.wales.gov.uk or fax it to 02920 466 404.

If you are making your payment from outside the United Kingdom, it must be in sterling. Our IBAN number is GB42 BARC2013 4200 4401 08 and our SWIFTBIC number is BARC GB22.

If you do not quote your reference number (this can be the customer reference, permit reference or an application reference generated at pre application stage), there may be a delay in processing your payment and application.

BACS reference

Applying for a permit in England?

If you choose to pay by electronic transfer and you are applying for a permit for another (English) region, you will need to use the following information to make your payment.

Company name:	Environment Agency
Company address:	Income Dept 311, PO Box 263, Peterborough, PE2 8YD
Bank:	Barclays Bank Plc
Address:	15 Queen Square, Bristol, BS1 4NP
Sort code:	20-13-42
Account number:	20744646
Payment reference number:	xxxxxxxxxxxxx

You should also email your payment details and reference number (this can be the customer reference, permit reference or an application reference from the pre application stage) to banking@environment-agency.gov.uk or fax it to 01733 464 892.

If you are making your payment from outside the United Kingdom, it must be in sterling. Our IBAN number is GB42 BARC2013 4220 7446 46 and our SWIFTBIC number is BARC GB22.

If you do not quote your reference number (this can be the customer reference, permit reference or an application reference from the pre application stage), there may be a delay in processing your payment and application.

Now read section 4 below.

4 The Data Protection Act 1998

We, the Environment Agency, will process the information you provide so that we can:

- deal with your application;
- make sure you keep to the conditions of the licence, permit or registration;
- process renewals; and
- keep the public registers up to date.

4 The Data Protection Act 1998, continued

We may also process or release the information to:

- offer you documents or services relating to environmental matters;
- consult the public, public organisations and other organisations (for example, the Health and Safety Executive, local authorities, the emergency services, the Department for Environment, Food and Rural Affairs) on environmental issues;
- carry out research and development work on environmental issues;
- provide information from the public register to anyone who asks;
- prevent anyone from breaking environmental law, investigate cases where environmental law may have been broken, and take any action that is needed;
- assess whether customers are satisfied with our service, and to improve our service; and
- respond to requests for information under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004 (if the Data Protection Act allows). We may pass the information on to our agents or representatives to do these things for us.

Now read section 5 below.

5 Confidentiality and national security

We will normally put all the information in your application on a public register of environmental information. However, we may not include certain information in the public register if this is in the interests of national security, or because the information is confidential.

You can ask for information to be made confidential by enclosing a letter with your application giving your reasons. If we agree with your request, we will tell you and not include the information in the public register. If we do not agree with your request, we will let you know how to appeal against our decision, or you can withdraw your application.

You can tell the Secretary of State that you believe including information on a public register would not be in the interests of national security. You must enclose a letter with your application telling us that you have told the Secretary of State and you must still include the information in your application. We will not include the information in the public register unless the Secretary of State decides that it should be included.

Only tick the box below if you wish to claim confidentiality for your application

Please treat the information in my application as confidential ☐

Tick the box below if you have written to the Secretary of State or Welsh ministers to claim national security for your application

I attach a letter stating that I have written to the Secretary of State or Welsh ministers explaining why my information should not be included on the public register for national security reasons ☐

Now go to section 6

6 Declaration

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 2010.

A relevant person should make the declaration (see guidance notes on part F1).

If you are transferring all or part of your permit, both you and the person receiving the permit must make the declaration.

I declare that the information in this application is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

If you deliberately make a statement that is false or misleading in order to get approval you may be prosecuted.

I confirm that my standard facility will fully meet the rules that I have applied for (this only applies if the application includes standard facilities) ☐

Tick this box to confirm that you understand and agree with the declaration above, then fill in the details below ☒

Name

Title (Mr, Mrs, Miss and so on)	MR
First name	NICK
Last name	BROOKES
on behalf of (if relevant)	
Position	PROPRIETOR
Today's date (DD/MM/YYYY)	05/04/2011

6 Declaration, continued

For transfers only – declaration for person receiving the permit

A relevant person should make the declaration (see guidance notes on part F1).

I declare that the information in this application to transfer an environmental permit to me is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

If you deliberately make a statement that is false or misleading in order to get approval you may be prosecuted.

Tick this box to confirm that you understand and agree with the declaration above ☐

Name

Title (Mr, Mrs, Miss and so on)

First name

Last name

on behalf of (if relevant)

Position

Today's date (DD/MM/YYYY)

Now go to section 7

7 Application checklist (you must fill in this section)

Tell us what you have sent with this application.

The correct application fee under our charging scheme ☒ Tick the box to say you have included the fee

List all the documents you have included. If necessary, continue on a separate sheet and tell us the reference you have given the document below.

Document reference

Question reference	Document title	Document reference
Part C2 2a	Management System	2136/202/MS/01
	Non Technical Summary	2136/202/NTS/01
Part C2 5a	Drawings	2136/202/02 Rev A
		202/1025/NB/12
		202/1025/NB/13
Part C2 6	Risk Assessments	2136/202/RA/01

8 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: 08708 506 506 (Monday to Friday, 8am to 6pm)

Textphone: 08702 422 549 (Monday to Friday, 8am to 6pm)

Email: enquiries@environment-agency.gov.uk

Website: www.environment-agency.gov.uk

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.

9 Where to send your application (for how many copies to send see the guidance note on part F1)

Please send your filled in application form to:

Permitting Support Centre
Quadrant 2
99 Parkway Avenue
Parkway Business Park
Sheffield
S9 4WF

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

£

SITE CONDITION REPORT TEMPLATE

For full details, see H5 *SCR guide for applicants* v 2.0 4 August 2008

COMPLETE SECTIONS 1-3 AND SUBMIT WITH APPLICATION

DURING THE LIFE OF THE PERMIT: MAINTAIN SECTIONS 4-7

AT SURRENDER: ADD NEW DOC REFERENCE IN 1.0; COMPLETE SECTIONS 8-10; & SUBMIT WITH YOUR SURRENDER APPLICATION.

1.0 SITE DETAILS	
Name of the applicant	Nick Brookes
Activity address	Green Lane Wardle, Cheshire CW5 6DB
National grid reference	SJ 602 570

Document reference and dates for Site Condition Report at permit application and surrender	2136/202/SCR/01 April 2011

Document references for site plans (including location and boundaries)	2136/202/01 2136/202/02 2136/202/03 2136/202/04

Note:
In Part A of the application form you must give us details of the site's location and provide us with a site plan. We need a detailed site plan (or plans) showing:

- Site location, the area covered by the site condition report, and the location and nature of the activities and/or waste facilities on the site.
- Locations of receptors, sources of emissions/releases, and monitoring points.
- Site drainage.
- Site surfacing.

If this information is not shown on the site plan required by Part A of the application form then you should submit the additional plan or plans with this site condition report.

2.0 Condition of the land at permit issue	
Environmental setting including: • geology • hydrogeology • surface waters	**Site consists of a concrete hardstanding yard with surface water passing via silt traps and interceptor into the public sewer system and a building with a sealed drainage system**
Pollution history including: • pollution incidents that may have affected land • historical land-uses and associated contaminants • any visual/olfactory evidence of existing contamination • evidence of damage to pollution prevention measures	**Site was formerly a green field site until it was developed by the applicant as recycling centre. The materials accepted and processed on site are mainly uncontaminated construction and demolition wastes** **Not aware of any pollution incidents.**
Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification	**None N/A**

reports (where available)		
Baseline soil and groundwater reference data		**N/A**
Supporting information	• Source information identifying environmental setting and pollution incidents • Historical Ordnance Survey plans • Site reconnaissance • Historical investigation / assessment / remediation / verification reports • Baseline soil and groundwater reference data	

3.0 Permitted activities	
Permitted activities	Application is to extend the permit boundary for the existing waste recycling area to include the soils washing plant currently regulated under a Paragraph 13 waste exemption and future composting facility.
Non-permitted activities undertaken	N/A
Document references for: • plan showing activity layout; and • environmental risk assessment.	See Drawing No 2136/202/02A; 935/202/03; 202/1025/NB/13; 202/1025/NB/12 ~~H1~~ and 2136/202/RA/01

Note:

In Part B of the application form you must tell us about the activities that you will undertake at the site. You must also give us an environmental risk assessment. This risk assessment must be based on our guidance (*Environmental Risk Assessment - EPR H1*) or use an equivalent approach.

It is essential that you identify in your environmental risk assessment all the substances used and produced that could pollute the soil or groundwater if there were an accident, or if measures to protect land fail.

These include substances that would be classified as 'dangerous' under the Control of Major Accident Hazards (COMAH) regulations and also raw materials, fuels, intermediates, products, wastes and effluents.

If your submitted environmental risk assessment does not adequately address the risks to soil and groundwater we may need to request further information from you or even refuse your permit application.

4.0 Changes to the activity	
Have there been any changes to the activity boundary?	If yes, provide a plan showing the changes to the activity boundary. Yes refer to Drawing 2136/202/02A
Have there been any changes to the permitted activities?	If yes, provide a description of the changes to the permitted activities Refer to 2136/202/MS/01 Dated 08/04/2011
Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	If yes, list of them No
Checklist of supporting information	• Plan showing any changes to the boundary (where relevant) • Description of the changes to the permitted activities (where relevant) • List of 'dangerous substances' used/produced by the permitted activities that were not identified in the Application Site Condition Report (where relevant)

5.0 Measures taken to protect land	
Use records that you collected during the life of the permit to summarise whether pollution prevention measures worked. If you can't, you need to collect land and/or groundwater data to assess whether the land has deteriorated.	
Checklist of supporting information	• Inspection records and summary of findings of inspections for all pollution prevention measures • Records of maintenance, repair and replacement of pollution prevention measures

6.0 Pollution incidents that may have had an impact on land, and their remediation	
Summarise any pollution incidents that may have damaged the land. Describe how you investigated and remedied each one. If you can't, you need to collect land and /or groundwater reference data to assess whether the land has deteriorated while you've been there.	
Checklist of supporting information	• Records of pollution incidents that may have impacted on land • Records of their investigation and remediation

7.0 Soil gas and water quality monitoring (where undertaken)	
Provide details of any soil gas and/or water monitoring you did. Include a summary of the findings. Say whether it shows that the land deteriorated as a result of the permitted activities. If it did, outline how you investigated and remedied this.	
Checklist of supporting information	• **Description of soil gas and/or water monitoring undertaken** • **Monitoring results (including graphs)**

8.0 Decommissioning and removal of pollution risk

Describe how the site was decommissioned. Demonstrate that all sources of pollution risk have been removed. Describe whether the decommissioning had any impact on the land. Outline how you investigated and remedied this.

Checklist of supporting information	• **Site closure plan** • **List of potential sources of pollution risk** • **Investigation and remediation reports (where relevant)**

9.0 Reference data and remediation (where relevant)

Say whether you had to collect land and/or groundwater data. Or say that you didn't need to because the information from sections 3, 4, 5 and 6 of the Surrender Site Condition Report shows that the land has not deteriorated.

If you did collect land and/or groundwater reference data, summarise what this entailed, and what your data found. Say whether the data shows that the condition of the land has deteriorated, or whether the land at the site is in a "satisfactory state". If it isn't, summarise what you did to remedy this. Confirm that the land is now in a "satisfactory state" at surrender.

Checklist of supporting information	• Land and/or groundwater data collected at application (if collected) • Land and/or groundwater data collected at surrender (where needed) • Assessment of satisfactory state • Remediation and verification reports (where undertaken)

10.0 Statement of site condition

Using the information from sections 3 to 7, give a statement about the condition of the land at the site. This should confirm that:

- the permitted activities have stopped
- decommissioning is complete, and the pollution risk has been removed
- the land is in a satisfactory condition.

NICK BROOKES DEMOLITION AND WASTE DISPOSAL

RECYCLING CENTRE

WARDLE INDUSTRIAL ESTATE

RISK ASSESSMENTS (08/04/2011)

(2136/202/RA/01)

Prepared by:

Oaktree Environmental Ltd

Oaktree Environmental Ltd - ***Unit 5, Oasis Park, Road One, Winsford Industrial Estate, Winsford, Cheshire, CW7 3RY***

Tel: ***01606-558833*** *Fax:* ***01606-861182*** *E-mail:* ***sales@oaktree-environmental.co.uk***

WASTE MANAGEMENT OPERATION
ENVIRONMENTAL RISK ASSESSMENT FORM

SITE : NICK BROOKES DEMOLITION AND WASTE DISPOSAL

ASSESSMENT DATE: 06/04/2011

ASSESSMENT CARRIED OUT BY: JAN EDWARDS

NOTES:

Hazard: A property or situation that in particular circumstances could lead to harm.

Consequences: The adverse effects or harm as the result of realising a hazard which causes the quality of human health or the environment to be impaired in the short or long term.

Risk: A combination of the probability of occurrence of a defined hazard and the magnitude of the consequences of the occurrence

ABBREVIATIONS USED:

Consequences of hazard:

A: MINOR INJURY
B: MAJOR INJURY
C: DEATH
D: AIR POLLUTION
E: WATER POLLUTION
F: POLLUTION OF LAND

Effect of consequences

S: SEVERE (Management required in all cases)
Mo: MODERATE (Management required in most cases)
Mi: MILD (Management required occasionally)
N: NEGLIGIBLE (Management not required)

Note: Management is the action required to reduce the risk of a hazard causing a problem on site. Continency measures are procedures which are in place to reduce the consequences of a hazard.

Risk estimation and evaluation - probability/frequency of occurrence of hazard

1: High - could occur during any working day
2: Medium - could occur regularly - management/contingency required
3: Low - event possible - contingency measures/management advisable
4: Negligible - event very unlikely - continency measures/management advisable but not absolutely necessary

Risk assessment outcomes (combination of probability & consequence)
Management i.e. action required to reduce risk is based on the outcome

High, Medium, Low or Near Zero

No.	Hazard	Consequences	Effect	Probability	Assessment Outcome	Control required	Management System reference
1	ELECTRICAL	A,B,C	S,Mo	3	LOW	Compliance with Electricity at Work Regulations 1989	N/A
2	MINOR FUEL/OIL SPILLAGES	A,E,F	Mo,Mi	1/2	LOW	Spill kit & clearance procedures	4.1
3	SPILLAGE - FUEL TANK	A,B,E,F	S,Mo	3	LOW	Bunded fuel tank, locked	2.6
4	CHEMICAL SPILLAGE	A-F	S-N	3	LOW	Emergency procedures	5.3
5	RELEASE OF GASES/VAPOURS	A-D	S-N	3	LOW	Emergency procedures	5.5
6	DRUMMED WASTE	A-F	S-N	4	LOW	Emergency procedures	5.4
7	BIOLOGICAL HAZARD	A-C,E,F	Mo-N	4	NEAR ZERO	N/A	N/A
8	REACTION BETWEEN WASTES	A-F	S-N	4	LOW	Emergency procedures	5.5
9	HIGH WINDS	A,D,E,F	Mo-Mi	3	MEDIUM	Tip light loads in transfer building	5.6
10	POOR VISIBILITY	A-B	Mo-Mi	3	NEAR ZERO	Emergency procedures	5.7
11	PLANT FAILURE	A-C,D-F	Mo	2	MEDIUM	Replace plant, clear spills	4.1, 2.9, 5.3
12	OVERTURNED VEHICLE/PLANT	A-F	S	4	LOW	Emergency procedures	5.9
13	BOMB SCARE	A-F	S	4	NEAR ZERO	Emergency procedures	5.10
14	VIBRATION	A-D	Mo	3	NEAR ZERO	N/A	4.8
15	ASBESTOS IN LOAD	A,D	Mo	2	HIGH	Assess risk - follow handling procedures	3.0, 4.4
16	FIRE	A-F	S	3	LOW	Emergency procedures	5.2
17	NOISE	A,D	Mo	3	LOW	Maintain plant/silencers/building	1.4, 4.8
18	DUST - EXTERNAL	A,D,E	Mo-Mi	1	MEDIUM	Dust control equipment/procedures	4.4
19	VERMIN	A	N	2	LOW	Pest control contractor	4.7

No.	Hazard	Consequences	Effect	Probability	Assessment Outcome	Control required	Management System reference
20	DUST - INTERNAL	A,D,E	Mo-Mi	1	MEDIUM	Same as 18.	4.4
21	FIBRE	A,D	Mi	3	LOW	Restrict waste types accepted	Appendix III
22	FUME	A-D	S-N	3	LOW	Restrict waste types accepted	Appendix III
23	VAPOURS (CHEMICALS)	A-D	S-N	3	LOW	Restrict waste types accepted	Appendix III
24	BURIED SERVICES	A-C,D	S-N	4	NEAR ZERO	Cat/Jenny - find services	N/A
25	OVERHEAD SERVICES	A-C	S-N	3	LOW	Observation/health and safety procedures	N/A
26	LANDFILL GAS	A-D	S-N	4	NEAR ZERO	N/A	N/A
27	LEACHATE	A,E,F	Mo	4	NEAR ZERO	N/A	N/A
28	NON-ION. RADIATION	A-C	S	4	NEAR ZERO	Outdoor workers - low risk - health and safety issue	N/A
29	IONISING RADIATION	A-C	S	4	NEAR ZERO	No scanning devices used	N/A
30	MUD ON ROADS	A,B,F	S,Mo	2	LOW	Contingency measures	4.3
31	ODOUR	D	Mo	3	LOW	Contingency measures	4.5
32	COLLAPSE OF STORED MATERIALS	A-C	S	2	LOW	Restrict storage heights	3.3, 4.4
33	FALLING MATERIALS	A-C	S	2	LOW	Restrict storage heights	3.3, 4.4

HEALTH AND SAFETY - ASBESTOS HANDLING PROCEDURE - TRANSFER STATION NICK BROOKES DEMOLITION & WASTE DISPOSAL - VERSION 2.0 (06/04/2011)

SUBJECT: ASBESTOS

MATERIAL HAZARDS: ASBESTOSIS, LUNG CANCER OR OTHER DISEASES THROUGH PROLONGED EXPOSURE

MATERIAL PRESENT IN: PIPE LAGGING, INSULATING BOARDS, CEILING TILES, BRAKE LININGS, STIPPLE COATINGS SUCH AS 'ARTEX', ROOF AND CLADDING SHEETS, DRAINAGE GOODS, SPRAY COATINGS ON STEELWORK FOR INSULATION

POTENTIAL WORK HAZARDS: EXPOSURE TO AND INHALATION OF AIRBORNE DUST AS A RESULT OF:

i MANUAL HANDLING OF ASBESTOS SHEETS

ii BREAKING UP ASBESTOS SHEETS IN CRUSHING, SCREENING OR SHREDDING PLANT.

iii CRUSHING BY LOADING SHOVEL

iv INCORRECT USE OF PERSONNEL PROTECTION EQUIPMENT (PPE).

RISK CATEGORY FOR SITE: SMALL - THE SITE ONLY ACCEPTS ASBESTOS WHEN THE LOAD HAS BEEN PRE-NOTIFIED. ONLY CEMENT BONDED ASBESTOS IS TO BE ACCEPTED.

RISK MANAGEMENT/HANDLING PROCEDURE:

i INFORM CUSTOMERS OF ALL REQUIREMENTS REGARDING BONDED ASBESTOS

ii. CHECK LOADS OF INCOMING WASTE FOR ASBESTOS

iii. REJECT ALL NON NOTIFIED ASBESTOS FOUND IN INCOMING LOADS

iv. SPRAY ASBESTOS MATERIALS WITH WATER TO REDUCE DUST HAZARD.

v. ENSURE THAT ALL STAFF LIKELY TO COME INTO CONTACT WITH ASBESTOS HAVE BEEN ISSUED WITH THE RELEVANT PPE AND TRAINED IN ITS USE.

vi. IF THE ASBESTOS IS NOT IN CEMENT BONDED SHEET FORM CONSULT A SPECIALIST CONTRACTOR FOR REMOVAL.

vii SEPARATE FROM ALL OTHER WASTE STREAMS.

viii DEPOSIT ALL ASBESTOS IN A ENCLOSED LOCKABLE CONTAINER DIRECT FROM THE DELIVERY VEHICLE, AND SPRAY WITH WATER TO ELIMINATE ANY POTENTIAL DUST PROBLEMS. SPRAY CONTENTS OF SKIP WITH WATER PRIOR TO ADDING FURTHER WASTE.

Generic risk assessment for standard rules set number SR2008No7 v3.0

Standard Facility:	Waste Operation: HCI Waste Transfer Station with treatment and asbestos storage
Location:	Applies to all potential locations.
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	Environment Agency
Date:	16-Mar-10

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - The storage and repackaging of waste (D15, R13, D14) and treatment consisting only of manual sorting, separation, screening, baling, shredding, crushing or compaction of non hazardous waste (D9, R3, R4, R5).
Parameter 2	Permitted waste types - Non hazardous and hazardous (asbestos only) Household, Commercial and Industrial Waste
Parameter 3	Quantity of waste accepted at the facility: <75,000 tonnes per annum, including not more than 10 tonnes per day of asbestos
Parameter 4	The quantity of tyres stored at the facility shall not be more than 50 tonnes
Parameter 5	The quantity of asbestos stored at the facility shall not be more than 10 tonnes
Parameter 6	All wastes shall be bulked, transferred or treated inside a building, except for specified low-risk waste which may be bulked, transferred or treated outside. However, specified low risk waste must be treated inside a building if the activities are being carried out within an Air Quality Management Area (AQMA) designated for particulate matter in the form of PM10.
Parameter 7	All waste shall be stored in a building or outside within a secure container, except for specified low-risk waste which may be stored outside without using containers.
Parameter 8	Asbestos waste shall be double bagged and stored within secure lockable containers
Parameter 9	All waste shall be stored and treated on an impermeable surface with sealed drainage system, except for specified low-risk waste which may be stored and treated on hard standing.
Parameter 10	The only point source discharges to controlled waters or groundwater, are surface water from the roofs of buildings and from areas of the facility not used for the storage or treatment of wastes.
Parameter 11	The activities shall not be carried out within 500m of a European Site (candidate or Special Area of Conservation, proposed or Special Protection Area or Ramsar site) or a Site of Special Scientific Interest (SSSI).
Parameter 12	The activities are not carried out predominantly using a limited number of the permitted waste types in a manner which significantly increases any of the risks compared to the generic operation of this type of facility, for example predominantly storing wastes which present a significant increase in fire risk.

Abbreviations: SR - Standard Rule

SR (emissions of substances not controlled by emission limits - buildings) - emissions of substances .... shall not cause pollution...., with appropriate measures: bulking, transfer or treatment .... in a building; storage in a building or secure container; waste storage and treatment.... on impermeable surface with sealed drainage (except); specified waste storage and treatment.... on hard standing or on impermeable surface with sealed drainage.

SR (asbestos) - Asbestos is the only permitted hazardous waste and there are several standard rules to manage the risk: quantity received shall not exceed 10 tonnes per day; quantity stored shall not exceed 10 tonnes; there shall be no treatment; storage conditions shall be double bagged....within clearly identified, segregated, secure, lockable containers on an impermeable surface with a sealed drainage system.

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk

What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Local human population	Airborne asbestos fibres	Respiratory illness i.e. lung cancer and mesothelioma	Air transport then inhalation.	Low	High	**Medium**	Potential for exposure is low because of separate health and safety controls to protect employees	SR (asbestos)	Low
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation	High	Medium	**High**	Apart from asbestos, permitted waste types do not include .... dusts, powders or loose fibres but the treatment activities will produce particulate matter so a high magnitude risk is estimated. There is potential for exposure if anyone is living or working close to the site (apart from the operator and employees)	SR (emissions of substances not controlled by emission limits - buildings). SR (if required) - emissions management plan. Long term increases in particulate levels are restricted by SR - treatment of specified low risk wastes shall be carried out inside a building if the activities are located within an AQMA designated for PM10.	
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	**Low**	Local residents often sensitive to dust.	As above	Low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Medium	Medium	**Medium**	Local residents often sensitive to litter.	As above. Appropriate measures could include clearing litter arising from the activities from affected areas outside the site.	Low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads.	As above. Appropriate measures could include clearing waste, litter and mud arising from the activities from affected areas outside the site.	Low

Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Medium	Medium	**Medium**	Local residents often sensitive to odour.	SR - emissions shall be free from odour.... SR (if required) - odour management plan. Odour will be restricted by SR (emissions of substances not controlled by emission limits - buildings).	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Medium**	Local residents often sensitive to noise and vibration	SR - emissions shall be free from noise and vibration..... SR (if required) - noise and vibration management plan. Noise will be restricted by SR (emissions of substances not controlled by emission limits - buildings).	Low
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land	Medium	Medium	**Medium**	Permitted wastes may attract scavenging animals and birds. Specified low-risk wastes stored outside may become nesting / breeding sites.	SR - emissions of substances not controlled by emission limits (including those from scavenging animals, scavenging birds and other pests) shall not cause pollution...Access to waste is restricted by SR (emissions of substances not controlled by emission limits - buildings). Access to hazardous waste is restricted by SR (asbestos).	Very low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Medium	Medium	**Medium**	Insect pests can multiply on permitted wastes, particularly in summer months	As above	Low

Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Medium	**Low**	Apart from asbestos, permitted waste types are non-hazardous so any waste washed off site will add to the volume of the local post-flood clean up workload, rather than the hazard.	SR - management system (will include flood risk management). Waste washed off site restricted by SR (emissions of substances not controlled by emission limits - buildings). Hazardous waste washed off site restricted by SR (asbestos).	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Medium	**Medium**	Apart from asbestos, permitted waste types are non-hazardous so only a medium magnitude risk is estimated.	SR - activities shall be managed and operated in accordance with a management system (will include site security measures to prevent unauthorised access). Access to waste restricted by SR (emissions of substances not controlled by emission limits - buildings). Access to hazardous waste restricted by SR (asbestos).	Low
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Medium	Medium	**Medium**	Permitted waste types do not include sludges or liquids and, apart from asbestos, are non-hazardous so only a medium magnitude risk is estimated.	As above. SR - management system (will include fire and spillages). Spread of fire restricted by SR (emissions of substances not controlled by emission limits - buildings). Spread of fire to hazardous waste restricted by SR (asbestos). SR - tyre storage no more than 50 tonnes	Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Medium	Medium	**Medium**	Risk of accidental combustion of waste is moderate.	As above (excluding comments on access to waste). Permitted activities do not include the burning of waste.	Low

All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Medium	Medium	**Medium**	Permitted waste types do not include sludges or liquids so only a medium magnitude risk is estimated. There is potential for contaminated rainwater run-off from wastes stored outside buildings especially during heavy rain.	SR - All liquids shall be provided with secondary containment.... (applies to non- wastes such as fuels). Run-off restricted by SR (emissions of substances not controlled by emission limits - buildings).	Very low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Medium	Low	**Low**	Apart from asbestos, waste types are non-hazardous so harm is likely to be temporary and reversible.	As above	Low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Medium	Medium	**Medium**	Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	As above	Low
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	**Medium**	There is a potential for contaminated rainwater run-off or leachate from permitted waste types.	As above	Low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur, but might restrict recreational use.	SR (emissions of substances not controlled by emission limits - buildings). SR - emissions of substances not controlled by emission limits....SR (if required) - emissions management plan.	Very low
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Medium	Medium	**Medium**	Waste operations may cause harm to and deterioration of nature conservation sites.	SR (emissions of substances not controlled by emission limits - buildings). SR - activities shall not be carried out within 500m of a European Site or SSSI. (Distance criteria as agreed with Natural England/Countryside Council for Wales).	Low

Notes: Red triangle indicates comment containing supporting information

Yellow columns contain drop down menus that allow automatic evaluation of risk in green column

Generic risk assessment for draft standard rule set number SR2010No12 v 1.0

Standard Facility:	Waste Operation: Treatment of waste to produce soil, soilsubstitutes and aggregate
Location:	Applies to all potential locations.
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	Environment Agency
Date:	16-Feb-09

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - The storage of waste (R13) and treatment to produce soil, soil substitutes roadstone and aggregate(R3,R5).
Parameter 2	Permitted waste types - Non Hazardous as listed in rules other than waste consisting solely or mainly of dusts, powders or loose fibres or waste in liquid form
Parameter 3	Quantity of waste accepted at the facility: <75,000 tonnes per annum.
Parameter 4	The activities shall not be carried out within an Air Quality Management Area (AQMA) designated for particulate matter in the form of PM10.
Parameter 5	Specified waste shall be stored and treated on an impermeable surface with sealed drainage system when located within groundwater source protection zones 1 or 2 or on hard standing.
Parameter 6	The only point source discharges to controlled waters or groundwater, are surface water from the roofs of buildings and from areas of the facility not used for the storage or treatment of wastes.
Parameter 7	The activities shall not be carried out within 500m of a European Site (candidate or Special Area of Conservation, proposed or Special Protection Area or Ramsar site) or a Site of Special Scientific Interest (SSSI).
Parameter 8	The activities must also be 10 metres from any watercourse and be 50 metres from any spring or well, or of any borehole not used to supply water for domestic or food production purposes or 250m from any spring or well or any borehole used to supply water for domestic or food production purposes.
Abbreviations:	SR - Standard Rule

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Consequence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	High	Medium	**High**	Permitted waste types are inert and non hazardous and do not include dusts, powders or loose fibres and have a low potential to produce bioaerosols, but the treatment activities will produce particulate matter so a high magnitude risk is estimated. The permitted level of throughput and potential size of the facility means there is potential for exposure if anyone is living or working close to the site (apart from the operator and employees). There is potential for increased dust generation from permitted activities during prolonged dry periods e.g. summer months.	SR - Emissions of substances not controlled by emission limits (excluding odour and noise) shall not cause pollution. The operator shall not be taken to have breached this rule 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. SR (if required) - emissions	Low

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Consequence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).**
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	High	Low	**Medium**	As above. Local residents often sensitive to dust.	As above	Low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	**Low**	Local residents often sensitive to litter, however permitted waste types have low litter potential.	As above. Appropriate measures could include clearing litter arising from the activities from affected areas outside the site.	Very low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads.	As above. Appropriate measures could include clearing waste, litter and mud arising from the activities from affected areas outside the site.	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	Low	**Low**	Local residents often sensitive to odour, however permitted waste types have low odour potential.	SR - emissions shall be free from odour.... SR (if required) - odour management plan.	Very low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Medium**	Local residents often sensitive to noise and vibration	SR - emissions shall be free from noise and vibration..... SR (if required) - noise and vibration management plan.	Low

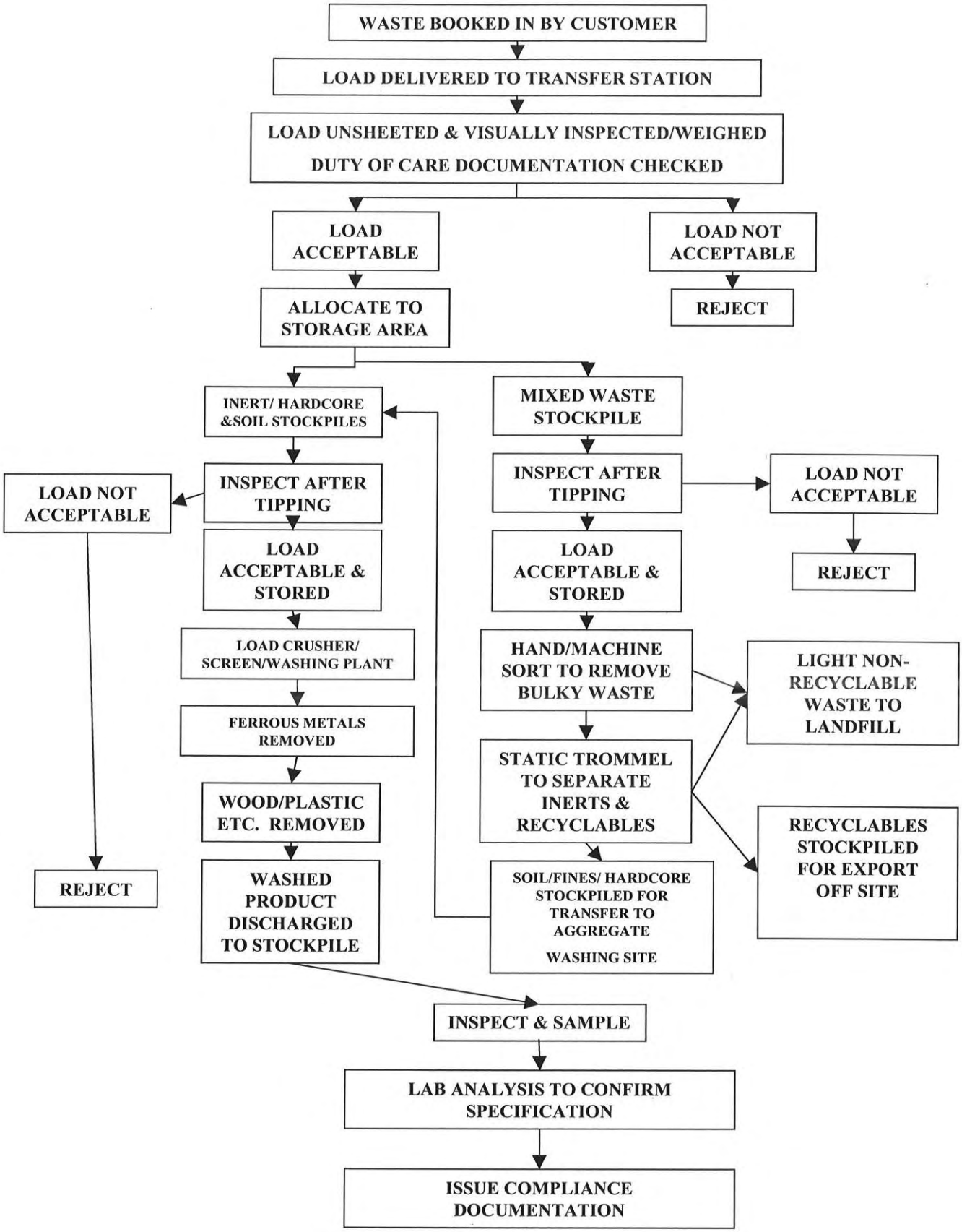
Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land	Low	Medium	Low	Permitted wastes unlikely to attract scavenging animals and birds but may become nesting / breeding sites.	SR - Emissions of substances not controlled by emission limits (excluding odour and noise) shall not cause pollution. The operator shall not be taken to have breached this rule 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. SR (if required) - emissions management plan.	Very low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	Low	Permitted waste types unlikely to attract pests.	As above	Very low
Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Low	Low	Low	Permitted waste types are inert and non hazardous so any waste washed off site will add to the volume of the local post-flood clean up workload, rather than the hazard.	SR -requires a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances (will include flood risk management).	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Low	Low	Permitted waste types are inert therefore only a low magnitude risk is estimated	SR - activities shall be managed and operated in accordance with a management system (will include site security measures to prevent unauthorised access).	Low

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, fire fighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Medium	Low	**Low**	Permitted waste types do not include any flammable materials so a low magnitude risk is estimated.	SR -requires a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances (will include fire and spillages).	Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or fire fighters. Pollution of water or land.	As above.	Medium	Low	**Low**	As above.	As above (excluding comments on access to waste). Permitted activities do not include the burning of waste.	Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Low	Low	**Low**	Permitted waste types do not include sludges or liquids so only a medium magnitude risk is estimated. No point source emissions to water are permitted, but there is potential for contaminated rainwater run-off from wastes stored outside buildings especially during heavy rain.	SR - All liquids shall be provided with secondary containment.... (applies to non- wastes such as fuels). Run-off restricted by SR on emissions of substances .... , with appropriate measures. Wastes from potentially contaminated sites require analysis. Storage & spreading has distance limitations from watercourses.	Very low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Low	Low	**Low**	Waste types are non-hazardous and inert so harm is likely to be temporary and reversible.	As above	Very low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Low	Low	**Low**	Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	As above	Very low

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Low	Low	Low	Permitted wastes unlikely to contaminate groundwater.	As above	Very low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	Low	Unlikely to occur, but might restrict recreational use.	SR - Emissions of substances not controlled by emission limits (excluding odour and noise) shall not cause pollution. The operator shall not be taken to have breached this rule 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. SR (if required) - emissions management plan.	Very low

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Medium	Medium	**Medium**	Waste operations may cause harm to and deterioration of nature conservation sites.	SR - Emissions of substances not controlled by emission limits (excluding odour and noise) shall not cause pollution. The operator shall not be taken to have breached this rule 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. At 500 metres or above, the potential hazards from the permitted activities pose a low risk to the broad sensitivity of species and habitats groups. The standard permit only applies at this distance or more. It is also a requirement of SR.	Low

Notes: Red triangle indicates comment containing supporting information
Yellow columns contain drop down menus that allow automatic evaluation of risk in green column


WASTE BOOKED IN BY CUSTOMER
LOAD DELIVERED TO TRANSFER STATION
LOAD UNSHEETED & VISUALLY INSPECTED/WEIGHED
DUTY OF CARE DOCUMENTATION CHECKED
LOAD ACCEPTABLE
LOAD NOT ACCEPTABLE
REJECT
ALLOCATE TO STORAGE AREA
INERT/ HARDCORE &SOIL STOCKPILES
MIXED WASTE STOCKPILE
INSPECT AFTER TIPPING
LOAD NOT ACCEPTABLE
LOAD ACCEPTABLE & STORED
LOAD CRUSHER/ SCREEN/WASHING PLANT
FERROUS METALS REMOVED
WOOD/PLASTIC ETC. REMOVED
WASHED PRODUCT DISCHARGED TO STOCKPILE
INSPECT AFTER TIPPING
LOAD NOT ACCEPTABLE
REJECT
LOAD ACCEPTABLE & STORED
HAND/MACHINE SORT TO REMOVE BULKY WASTE
LIGHT NON-RECYCLABLE WASTE TO LANDFILL
STATIC TROMMEL TO SEPARATE INERTS & RECYCLABLES
RECYCLABLES STOCKPILED FOR EXPORT OFF SITE
SOIL/FINES/ HARDCORE STOCKPILED FOR TRANSFER TO AGGREGATE WASHING SITE
REJECT
INSPECT & SAMPLE
LAB ANALYSIS TO CONFIRM SPECIFICATION
ISSUE COMPLIANCE DOCUMENTATION

CONTENTS:

1.0 INTRODUCTION

1.1 **Nick Brookes is applying to the Environment Agency for a Paragraph 12 exempt composting operation, using open windrows to produce compost from green/biodegradable from the adjacent aggregate washing operation to spread on agricultural land within his ownership. The operation also requires planning consent from Cheshire East Council. This document has been produced to support both applications.**

1.2 **The proposed composting site (site A) is located on land adjacent to the offices of Nick Brookes Group, as shown on Drawing No. 935-202-3. The site is located off Green Lane, Wardle CW5 6DB and the composting activity will take place at the site as shown on Drawing No. 935-202-3 at National grid reference (NGR) 360280.357310. The surrounding land use is a mix of industry and agriculture, with Green lane bisecting Nick Brookes' waste operations, which include a waste transfer station, aggregate washing plant and a separate (temporary) aggregate storage site which is the subject of another planning application (site B).**

1.3 **Composting of waste materials has the potential to cause environmental pollution, harm to human health and nuisance. There is a potential for the process to give rise to odours, leachate, noise and potentially harmful bioaerosols. The registration of the exemption requires that a pollution risk assessment is carried out as well as a bioaerosol risk assessment if there are dwellings or work places within 250 metres of the activity. The neighbouring sites are occupied by site and office workers. No third parties are resident at the sites.**

1.4 **This risk assessment is required to establish the following:**

a. Whether the activity can be carried out without breaching the relevant objectives of the Framework Directive on Waste i.e.
- **i. harm to human health**
- **ii. causing risk to water, air, soil, plant or animals**
- **iii. causing nuisance through noise or odours**
- **iv. adversely affecting the countryside**

b. Whether or not there is a need to monitor for bio-aerosols, how such monitoring should be carried out if required and what control measures to use to prevent or reduce the creation of bioaerosols.

1.5 **The exemption criteria for composting operations are set out in full in Paragraph 12 of Schedule 3 of the Environmental Permitting (England & Wales) Regulations 2007. In summary these criteria are**

(1) Composting biodegradable waste at the place where the waste is produced or where the compost is to be used, or at any other place occupied by the person producing the waste or using the compost, if the total quantity of waste being composted at that place at any time does not exceed 1,000 cubic metres.

(2) The storage of biodegradable waste which is to be composted if that storage is at the place where the waste is produced or is to be composted.

(3) "composting" includes any other biological transformation process that results in materials which may be spread on land for the benefit of agriculture or ecological improvement.

1.6 Several guidance documents have recently been issued which provide guidance relating to bioaerosols, including the Environment Agency's draft Technical Guidance on Composting Operations, issued in October 2001. Since then the Agency has produced a position statement which has a presumption against the granting of permission for any new composting facilities where the boundary of the facility is within 250 metres of a workplace or the boundary of a dwelling. Some operations may be excluded from this requirement subject to strict operational controls, advice on which is given in Section 3.0.

1.7 The waste types to be accepted at the site will be dry non-hazardous controlled wastes in the form of green waste from numerous sources, which may include pruning material, leaves, soil bound roots, dead plant matter, hedge clippings, weeds, manure, grass cuttings, trees etc. Putrescible waste such as food waste, peelings etc. will not be accepted at the site. The site will principally accept green waste and woody material from the transfer station and aggregate washing plant.

1.8 All operations on site are required to be carried out in accordance with the relevant provisions of the Health and Safety at Work Act 1974, in particular the provision and use of personal protective equipment (PPE). This document does not take into account the effect of bioaerosol emissions upon site staff as the responsibility for enforcing such matters lies with the Health and Safety Executive and/or Environmental Health Department and is not an EA matter. However, some of the recommendations in Section 3.0 will also assist in achieving obligations held under HASAWA 1974.

2.0 RISK ASSESSMENT

2.1 The function of a risk assessment is to determine the likelihood of a hazard from a known source impacting upon a target or receptor (in this case humans) along a known or theoretical pathway. A hazard is a property or situation that in particular circumstance could lead to harm. Some of the main hazards associated with composting processes are as summarised below:

- **i Effects of VOC inhalation from site plant**
- **ii Odour nuisance from composting waste**
- **i. Inhalation of dusts, fibres and particulates (including bioaerosols) from various site operations**
- **ii. Dry deposition of dusts, fibres and particulates from site operations.**
- **iii. Noise**
- **iv. Skin contact**

For the purposes of this risk assessment the main hazard is presented by the inhalation or respiration of fine dusts and particles which may contain airborne pathogens such as fungi (spores) or bacteria and referred to as bioaerosols (an aerosol of biological particles < 3-5 μm in size).

2.2 In the UK windrow composting is a commonly used method, which if managed properly, can be easily controlled. The key to the management rests on tailoring the operation to the waste types to be composted and placing sufficient risk assessment driven controls on the operation. The major disadvantage is that windrows are subject to exposure from the weather and can dry out or become too wet if not properly managed, both of which can result in dispersal of bioaerosols, even if indirectly so.

2.3 Above background numbers of micro-organisms will be released into the air when any agitation of organic material occurs, such as turning, screening or shredding. The re-circulation of leachate may also release micro-organisms and which, due to their microscopic size, once released into the air can remain airborne for long periods of time in the form of bioaerosols.

2.4 Release into the air can also occur if a site becomes muddy during prolonged periods of heavy rainfall, which may leach micro-organisms out of the windrows and into the surface mud. As the mud dries and is tracked by heavy vehicles it dries out, giving rise to dust and aerosol formation.

2.5 **The bioaerosols enter the lungs and are often retained in the fine airways of the lung where they can produce allergenic or pathogenic reactions. There are currently no defined exposure limits for airborne micro-organisms dispersed as bioaerosols but research on behalf of the Environment Agency has indicated that fungi and bacterial levels above 1,000 cfu/m^3 [cfu = colony forming units] may lead to health problems in susceptible individuals, particularly those with suppressed immune systems. However, exposure is entirely dependent on the individual and therefore the potential effect on individuals is extremely difficult to predict.**

2.6 **Discussions with the Environment Agency on similar projects have concluded that composting of green waste represents less of a risk to human health than composting food and other putrescible waste. A similar local site is the BEEVA composting site at Tarbock Green Nurseries, also in Knowsley Metropolitan Borough Council. Residential properties are within 20 metres and the control of aerosol and dust emissions is achieved by controls placed upon the operation by the working plan and licence. The controls recommended in Section 3.0 are derived from the risk assessment outcome and knowledge of other sites.**

2.7 **The consequences of the release of bioaerosols could therefore include health effects ranging from minor to severe illness should a sensitive individual be exposed to the hazard. Other consequences include, by default, air pollution, water pollution and land pollution although no limits have yet been set to determine at which level the environment becomes polluted by bioaerosols. Naturally present bioaerosols and those from other agricultural activities can also have an impact.**

2.8 **The main hazards have been summarised in a risk assessment matrix in the Appendix to this document. The hazard have been considered against their potential to impact upon the receptors outside the site boundary i.e. the offices on site, should they be occupied by a third party.**

2.9 **Findings to date indicate that, from large scale composting, under normal conditions concentrations of bioaerosols fall to background levels within 250 m of test sites. The dispersion and dispersion mechanisms of bioareosols is not particularly well understood. In compiling its draft composting guidance the Environment Agency used a simple modelling approach based on no effect from 1,250 tonnes at 250 m and assuming, as a precaution, that released amounts of bioaerosols are directly proportional to the throughput of the site. This may be a simplification of the issues as it does not take into account the frequency of windrow turning, addition of moisture etc. and other management issues.**

2.10 The risk assessment outcome for the distribution of airborne pathogens is low for the following reasons:

i. Other than industrial buildings on the estate there are no other properties within 250 metres of the site.

ii. The restriction on waste types i.e. green waste only should ensure that bioaerosol production is much reduced.

iii. The prevailing wind direction is South-Westerly i.e. away from the offices.

iv. Contingency measures and best operational practice are easily achievable within the confines of the site. Section 3.0 below also recommends additional controls which may also assist in the control of bioaerosols.

2.11 The monitoring of bioaerosols should not be absolutely necessary at a site of this nature. However, until further guidance is available on the matters discussed above some background monitoring would be advisable. The monitoring scheme should also remain flexible to take account of the outcome of monitoring exercises i.e. if bioaerosol levels are consistently low the frequency of monitoring should be reduced and *vice versa*.

2.12 The Agency guidance states that "Public exposure to the generated bioaerosols is reduced by dilution in the air stream. Agency funded research has suggested that bioaerosol levels are likely to be at or below ambient levels within 250m of the composting operation. This is based on modelling and experimental data and assumes that no attenuation is carried out. If measures are taken to reduce or disperse the emission this distance may be substantially reduced."

3.0 RECOMMENDATIONS

3.1 The risk assessment outcome shows that the risk to persons, other than site workers, who are situated within 250 metres of the site is low and that good operational practices will ensure that the operation meets the criteria for an exempt composting operation as stated in Section 1.0.

3.2 The most important control factor is the checking of waste upon receipt to comply with the 'Duty of Care' and to ensure that only the wastes types permitted by the planning consent are accepted at the site. These checks should be carried out as follows:

i. A visual check of the delivery vehicle once it has been unsheeted should enable the person in charge of receipt of waste to check that the load is as described on the transfer note. If the load is not as described the load should be rejected and returned to the producer.

ii. The only way to fully inspect a load is upon tipping and all loads which pass the first inspection should be checked upon deposit. The purpose of this check is to ensure that incompatible and unauthorised wastes do not enter the composting process. If the entire load is unacceptable after deposit it should be rejected and returned to the producer. If minor items such as plastic bags and litter are discovered they should be removed and placed in a skip on site.

3.3 Temperatures of windrows should be monitored and checked to provide the optimum temperature for decomposition (50 - 60 ºC). In the event of the stockpiles overheating the windrow should be turned to release the heat. Water should be added with caution as to prevent an exothermic reaction which may cause the temperature to rise.

3.4 All site operations should be carried out to minimise the creation of dust. The bowser should be used to spray the site roads, windrows and any dusty surfaces to prevent the formation of excessive dust. A constant supply of water from the bowser should be available for dust suppression in all climatic conditions. The water supply should be protected against freezing.

3.5 Vehicles carrying potentially dusty loads off site should be securely sheeted before leaving the site. Loads may be sprayed with water prior to sheeting if necessary.

3.6 Wind boards and a discharge hood should be made available to enclose wind sensitive areas of conveyors to reduce the risk of dust emissions.

3.7 Adoption of the following procedures would be particularly useful in contributing to a reduction in the formation of airborne micro-organisms:

- **i. Newly deposited material should be added to the windrow as early as is possible.**
- **ii. The moisture content within all stages of the composting process should be monitored to avoid the waste drying out and forming dust/aerosols.**
- **iii. The formation or turning of windrows or piles should be avoided if possible on windy days. Screening and shredding (using a slow speed shredder) should also be undertaken when wind speeds are calm or wind direction is away from sensitive receptors.**

3.8 The site surface on which the composting takes place must be hard surfaced and serviced by a sealed drainage system which affords collection of leachate for recirculation. The applicant is constructing a concrete hardstanding and sealed holding tank to provide such a system.

3.9 Erection of a wind sock will enable wind direction to be recorded when turning windrows. Windrows will not be turned when the wind direction is blowing towards the buildings. Similarly shredding will not take place until the wind direction is away from the buildings.

4.0 SCHEME FOR MONITORING BIOAEROSOLS

4.1 The key to any monitoring scheme is to assess whether or not the parameters to be detected and assessed are actually present on site before undertaking a potentially costly and unnecessary monitoring operation.

4.2 Our recommendation is that background monitoring of bioaerosols in accordance with the methods outlined in the guidance produced by the Composting Association* be carried out to determine if bioaerosols are already present at the site.

***[*"Standardised Protocol For The Sampling And Enumeration of Airborne Micro-organisms At Composting Facilities"*]**

4.3 The background monitoring is a base line against which the operation can be measured. For example a background level of 2,000 cfu/m^3 would indicate that there is a significant local source of bioaerosols which exceeds the suggested guidance level. Local levels therefore need to be established given the agricultural nature of the area.

4.4 Background levels of bacteria and fungi are highly variable and range from 1-1000 cfu/m^3, although higher values can be commonly encountered in agricultural, forest and landfill environments. The main species of interest and which will be tested for in the laboratory are the fungi *Aspergillus fumigatus* and mesophilic bacteria.

4.5 The background monitoring will therefore consist of the collection of 3 air samples using an Andersen Sampler, by a qualified person (preferably a microbiologist) for submission to a microbiology laboratory for analysis of colony forming units. These samples must be taken prior to the start of operations.

4.6 The sample locations will be those shown on Drawing No. 935A-202-07 as locations A, B and C. Sampling at all locations should be carried out concurrently if practicable.

4.7 A second sampling exercise should be carried out once the site is in operation and whilst windrows are being turned. The windrows should contain material of an appropriate age and wetness prior to turning, likely to be some 8-10 weeks after the background monitoring. Review of the monitoring programme should be carried out as results are obtained. If bioaerosols are not detected in significant numbers sampling may be able to reduce in frequency or even cease. The converse applies if results are high i.e. > 1,000 cfu/m^3.

4.8 Upon receipt of the results for the 2 monitoring exercises trigger levels should be set to determine when action should be taken to reduce the incidence of bioaerosol emissions. Such action may include the procedures outlined in Section 3.0 or removal of the compost from the site to reduce emissions.

4.9 Record keeping and sample preparation should also be as detailed in the Composting Association's guidance*. Details of appropriately qualified sampling and analysis services may be obtained from the Composting Association.

USEFUL DEFINITIONS (taken from the draft EA guidance)

Actinomycetes - A specific group of bacteria that are capable of forming very small spores.

Aerobic – An organism or process that requires oxygen.

Anaerobic – Metabolic Process occurring in the absence of oxygen.

***Aspergillus fumigatus* – Species of fungus with spores that can cause allergic reactions in some people.**

Bacteria – A group of micro-organisms with a primitive cellular structure, in which the genetic material is not retained within an internal membrane (nucleus).

Composting - The biological decomposition and stabilisation of organic substrates, under conditions that are predominantly aerobic and that allow the development of thermophilic temperatures as a result of biologically produced heat. It results in a final product that has been sanitised and stabilised, is high in humic substances and can be beneficially applied to land.

Compost - Biodegradable municipal waste which has been aerobically processed to form a stable, granular material containing valuable organic matter and plant nutrients which, when applied to land, can improve the soil structure, enrich the nutrient content of soil and enhance its biological activity.

Fungi – A group of micro-organisms with a more complicated cellular structure than bacteria, in which the hereditary genetic material is retained within an internal membrane, forming a nucleus.

Mesophilic – The temperature range most conducive to the maintenance of optimum digestion by mesophilic bacteria 20 -45˚C.

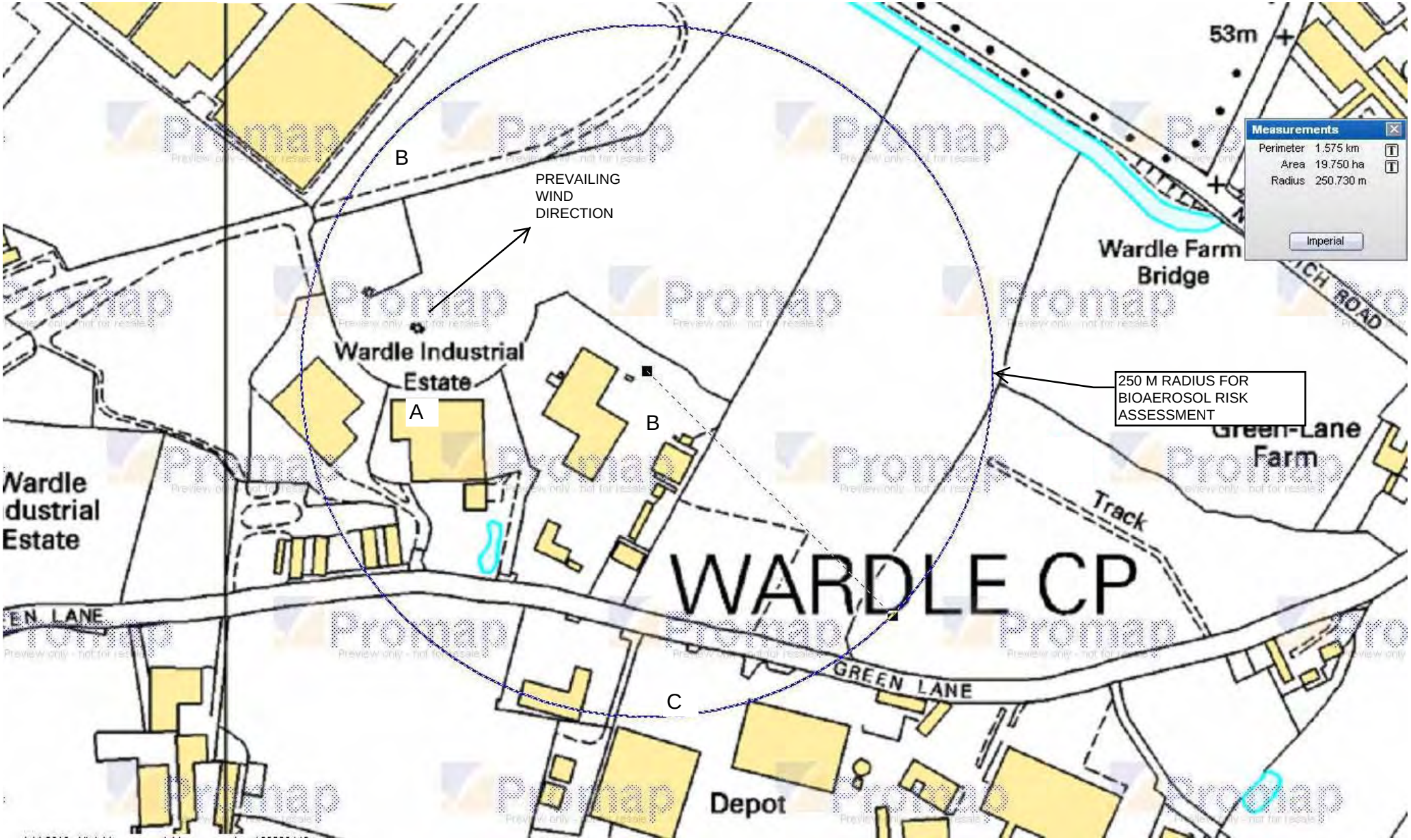
Mulch – A material spread over the soil surface to conserve moisture and porosity in the soil underneath and to suppress weed growth.

Pathogen – Any organism capable of producing disease through infection.

Pathogen kill – High temperature period of composting (>55˚C) during which organisms capable of producing disease or infection are destroyed.

DRAWING NO. 935A-202-07
BIOAEROSOL SAMPLING LOCATIONS

DATE: 14/01/10
SCALE: AS SHOWN



A, B & C DENOTE SAMPLE LOCATIONS

ENVIRONMENTAL RISK ASSESSMENT MODEL CRITERIA

OPERATOR: **NICK BROOKES - OPEN WINDROW COMPOSTING**
SITE LOCATION: **GREEN LANE ,WARDLE**
ASSESSMENT COMPILED: 14 January 2010

NOTES:

Hazard: A property or situation that in particular circumstances could lead to harm.

Consequences: The adverse effects or harm as the result of realising a hazard which causes the quality of human health or the environment to be impaired in the short or long term.

Risk: A combination of the probability of occurrence of a defined hazard and the magnitude of the consequences of the occurrence

ABBREVIATIONS USED:

Consequences of hazard:

A: MINOR INJURY
B: MAJOR INJURY
C: DEATH
D: AIR POLLUTION
E: WATER POLLUTION
F: POLLUTION OF LAND

Pathways, examples:

Air
Water
Ground
Direct contact

Effect of consequences

S: SEVERE (Management required in all cases)
Mo: MODERATE (Management required in most cases)
Mi: MILD (Management required occasionally)
N: NEGLIGIBLE (Management not required)

Note: Management is the action required to reduce the risk of a hazard causing a problem on site. Continency measures are procedures which are in place to reduce the consequences of a hazard.

Risk estimation and evaluation - probability/frequency of occurrence of hazard

1: High - could occur during any working day
2: Medium - could occur regularly - management/contingency required
3: Low - event possible - contingency measures/management advisable
4: Negligible - event very unlikely - continency measures/management advisable but not absolutely necessary

Risk assessment outcomes (combination of probability & consequence)
Management i.e. action required to reduce risk is based on the outcome

High [H], Medium [M], Low [L], Near Zero [NZ] or Zero [Z].

TABLE 1: NICK BROOKES - GREEN LANE ,WARDLE - OPEN WINDROW COMPOSTING ACTIVITY - BIOAEROSOL RISK ASSESSMENT

Hazard/Potential contaminant or situation	Source(s)	Pathway	Receptor(s)	Conse-quences	Effect	Prob-ability	Assessment Outcome before and after remedial action	Remedial action/ recommendations/comments
BIOAEROSOLS/ DUST / PARTICULATES	**1. SHREDDING REEN WASTE** **2. TURNING WINDROWS** **3. LOADING OR MOVING COMPOST** **4. SCREENING COMPOST**	**AIR -inhalation -dry deposition**	**SITE PERSONNEL (Health & Safety)** **VISITORS (Health & Safety)** **ADJACENT OFFICE/SITE OCCUPIERS/ USERS (Health & Safety)** **FLORA & FAUNA (No sensitive sites identified)**	**A minor injury/ illness** **B major injury/ illness** **D Air pollution** **F Land Pollution** **Note: A & B can take the form of chronic or acute illness.**	**Moderate, Mild or Negligible**	**2- 3** **Medium to Low** **(Could occur regularly - management / contingency required)**	**Medium** **[L]**	**The principal source of the hazard (bioaerosols) is from the shredding activity. Use of active suppression method would reduce risk to low. Water suppression should be used when shredding to reduce airborne emissions.** **Damp adjacent site surfaces down using bowser or hose. Use of mobile pressure wash washer would generate sufficient water pressure to dampen wastes. Avoid generation of mud which can dry to release micro-organisms.** **Consider use of low speed shredder with dust control.** **Comply with other outcomes of the risk assessment and follow recommendations in bioaerosol risk assessment document dated 14 January 2010. Carry out background monitoring at specified points and monitor operational site within 12 months of commencement.** **IF ABOVE RECOMMENDATIONS ARE FOLLOWED THE RESIDUAL RISK IS LOW.**

TABLE 2: NICK BROOKES - GREEN LANE ,WARDLE - OPEN WINDROW COMPOSTING ACTIVITY - GENERAL RISK ASSESSMENT

No.	Hazard/Potential contaminant or situation	Source(s)	Pathway	Receptor(s)	Conse-quences	Effect	Prob-ability	Assessment Outcome (Post action outcome in brackets)	Remedial action/ recommendations/comments
1	DUST / PARTICULATES	1. SITE SURFACES (DRY WEATHER) 2. WASTE STORAGE/ TREATMENT AREA 3. SHREDDING OPERATION - LOADING HOPPER AND PROCESSING WASTE 4. TURNING WINDROWS	AIR	1. SITE PERSONNEL/VISITORS AND ADJACENT SITE OCCUPIERS/ USERS 2. SURFACE WATER 3. FLORA & FAUNA	A, B, D, E	Mo	2	Med [L]	DAMP SITE SURFACES DOWN USING BOWSER OR HOSE. USE OF ACTIVE DUST SUPPRESSION METHOD WOULD REDUCE RISK TO LOW.
2	ODOUR	1. STORED BIODEGRADABLE WASTE 2. TURNING WINDROWS	AIR	1. SITE PERSONNEL/VISITORS 2. ADJACENT SITE OCCUPIERS/USERS	A, D	Mi to Mo	3	Med [L]	LOW STORAGE VOLUMES AND STRICT TURNAROUND WILL BE ENHANCED BY WATER SUPPRESSION FOR DUST. COMPLIANCE WITH BIOAEROSOL RA WILL ENSURE ODOUR MANAGEMENT MEETS EXEMPTION CRITERIA. RECORD WEATHER CONDITIONS INC. WIND DIRECTION
3	LITTER	PRE-PROCESSING STOCKPILE	AIR	1. SURFACE WATER, 2. SURROUNDING LAND 3. REDUCTION IN VISUAL AMENITY 4. INGESTION HAZARD FOR WILDLIFE	A to C E, F	Mi to Mo	3	Low [NZ]	INCOMING WASTE IS CONSISTENT IN NATURE. INSPECT AND PICK LITTER UPON DEPOSIT. CLEAR ALL LITTER BY END OF DAY. INFORM COLLEAGUES OF NON-CONFORMING LOAD REQUIREMENTS.
4	NOISE/VIBRATION	PLANT AND MACHINERY	AIR	1. SITE PERSONNEL/VISITORS 2. WORKERS ON ADJACENT SITES 3. PUBLIC	A, D	Mi to Mo	3	Med [L]	INSTALL ACOUSTIC INSULATION IF REQUIRED ON SHREDDER TO TACKLE DIRECTIONAL ELEMENT OF NOISE IF IT IS AN ISSUE. ISSUE EAR DEFENDERS TO ALL SITE STAFF WORKING IN CLOSE PROXIMITY TO SHREDDER.
5	VERMIN (LEPTOSPIROSIS etc.)	STORED BIODEGRADABLE WASTES	WATER, DIRECT CONTACT WITH WASTE	SITE PERSONNEL/VISITORS	A to C	Mi to Mo	3	Low [NZ]	WEAR PPE - GLOVES AND MASKS AS APPROPRIATE. NO FOOD WASTES ARE STORED OR PROCESSED ON SITE. NO CONTACT WITH SURFACE WATER REQUIRED.
6	FIRE - SMOKE / PARTICULATES	1. PLANT EXHAUSTS 2. STORAGE OF WASTE 3. COMBUSTION OF WASTES	AIR	1. SITE PERSONNEL/VISITORS 2. WORKERS ON ADJACENT SITES 3. PUBLIC 4. SURFACE WATER VIA FIREWATER	A to F	Mi to S	3	Low [NZ]	NO FIRES ON SITE. LOW STORAGE VOLUMES AND RETENTION TIMES REDUCES RISK OF FIRE
7	VEHICLE COLLISION/ ACCIDENT	1. MUD ON ROADS FROM INERT WASTE STORAGE & VEHICLE BODIES 2. POOR VISIBILITY	DIRECT CONTACT	1. VEHICLE USERS 2. PEDESTRIANS 3. ANIMALS	A to F	Mi to S	3	Low [NZ]	HOUSEKEEPING/ VEHICLE MANAGEMENT RESTRICTION ON TIPPING TO ONE VEHICLE AT A TIME. NON-FARM BASED SITE.

No.	Hazard/Potential contaminant or situation	Source(s)	Pathway	Receptor(s)	Conse-quences	Effect	Prob-ability	Assessment Outcome (Post action outcome in brackets)	Remedial action/ recommendations/comments
8	ASBESTOS - RELEASE OF CARCINOGENIC FIBRES	CONSTRUCTION AND DEMOLITION WASTES DEMOLITION WORKS ON SITE	AIR - INGESTION/ INHALATION DIRECT CONTACT - INHALATION FROM CLOTHING	1. CONSTRUCTION/DEMOLITION WORKERS 2. PLANT OPERATORS	A to E	Mi to S	1	Medium - High [Z]	ASBESTOS NOT ACCEPTED. NO DEMOLITION WORKS PROPOSED.
9	LEACHATE	COMPOSTING PAD - STORED WASTES AND PROCESSING WASTES.	GROUND	SURFACE WATER / GROUNDWATER	E, F	Mi to S	2	Med [NZ]	LIKELIHOOD OF CONTAMINATION SEGREGATE DRAINAGE - CONCRETE HARDSTANDING FOR WASTE STORAGE WITH SECURE LAGOON FOR LEACHATE/ RUNOFF TO REDUCE RISK TO NEAR ZERO. SITE IS NOT WITHIN A FLOODPLAIN
10	IMPACT/INJURY	COLLAPSE OF STORED MATERIALS/ FALLING MATERIALS	DIRECT CONTACT	SITE PERSONNEL/VISITORS	A to C	Mi to S	3	Low [NZ]	REDUCE STORAGE HEIGHTS AND PROVIDE BAYS WHERE POSSIBLE
11	HYDROCARBONS	1. UNBUNDED FUEL TANKS 2. DRIPS WHEN REFUELLING 3. DURING DELIVERY 4. LEAKAGE FROM STORED DRUMS 5. PLANT FAILURE	GROUND - DIRECT CONTACT, INGESTION INHALATION (OF VOLATILES)	SITE PERSONNEL/VISITORS	A, B, D, E, F	Mi to S	3	Low [NZ]	IF FUEL TANKS ARE USED THE AREA AROUND FUEL TANKS MUST BE REGULARLY INSPECTED - BUNDED AND PIPEWORK LOCKED WITHIN BUNDED AREA WHEN NOT IN USE. ENSURE THAT ALL FUEL DRUMS CONTINUE TO BE STORED SECURELY. KEEP SPILL KIT CLOSE TO SOURCE OF HAZARD.
12	RELEASE OF GASES/FUMES/ VAPOURS/ VOLATILES	1. MIXING OF WASTE/CHEMICALS 2. SPILLAGE OF CHEMICALS 3. OVERTURNED VEHICLE PLANT/PLANT FAILURE 4. REACTION BETWEEN STORED WASTES	AIR GROUND WATER CONFINED SPACES	OCCUPIERS/ SITE WORKERS	A to F	Mi to S	3	Low [NZ]	ENSURE CONTINUED STORAGE OF HAZARDOUS SUBSTANCES USED ON SITE AND THE FARM IN PROPERLY DESIGNATED AREAS/STORES. NO HAZARDOUS WASTE ACCEPTED.
13	NON-IONISING RADIATION	(LASERS, MICROWAVES ETC) FROM SURVEYING EQUIPMENT	DIRECT CONTACT	WORKERS ON SITE - WHILST LAYING CONCRETE	A to C	Mi to S	2	Low [NZ]	REDUCE EYE EXPOSURE BY PPE, GOOD PRACTICE
14	SSSI	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ENVIRONMENTAL RISK ASSESSMENT FOR SSSI NOT REQUIRED AS THERE ARE NONE CLOSE TO THE SITE.
15	BIOAEROSOLS	REFER TO SEPARATE SHEET - TABLE 1 FOR FURTHER DETAILS							

Composting and potential health effects from bioaerosols: our interim guidance for permit applicants

Background

The regulation of bioaerosols from permitted composting sites is being considered as part of the Government waste policy review in England, expected to report in Spring 2011. In the interim, Defra and the Welsh Assembly Government have agreed that the arrangements contained within this interim guidance will apply across England and Wales to composting operations that are, or will be, within 250 metres of a 'sensitive receptor' (typically a dwelling or workplace). This note replaces our 2007 position statement on Composting and the Potential Health Effects from Bioaerosols.

One particular aspect of composting that needs to be controlled is the release of potentially harmful bioaerosols. We take this into account before authorising any new composting facility located where the composting operations would be within 250 metres of sensitive receptors.

New permit applications

For some time we have required applicants for environmental permits for new composting operations within 250 metres of workplaces or dwellings to carry out a Site Specific Bioaerosol Risk Assessment (SSBRA) in support of their application. Before granting a permit we need to be satisfied that the SSBRA shows that bioaerosols can, and will, be maintained no higher than acceptable levels at the sensitive receptors.

The interim position for such sites is that, subject to the SSBRA assessment, applicants will be issued permits where:

a) the maximum quantity of waste handled at any one time does not exceed 500 tonnes, or

b) if the quantity of waste handled exceeds 500 tonnes, the operations are carried out in a way and with the necessary measures (e.g. negative aeration, enclosure) to ensure that they are not likely to result in the uncontrolled release of high levels of bioaerosols.

We will not apply any generic requirements for bioaerosol monitoring at new sites, pending the review of waste policies. We will assess the need for monitoring at new sites as part of the permit determination, based on the individual circumstances of the particular site and taking into account the cost of monitoring.

Permit variation applications

Similar considerations may apply to permit variations, depending on the scale and nature of the proposed variation.

Applications for permits for formerly exempt operations at existing sites

The revised composting exemption, which came into force in April, as part of the Environmental Permitting (England and Wales) Regulations 2010, reduced the amount of waste being composted on a site at any one time from 1,000 cubic metres (about 300 to 400 tonnes) to 60 or 80 tonnes (depending on where the composting takes places and where the compost is used).

As a result, we are expecting that a number of operators of formerly exempt operations will need to apply for an environmental permit if they want to continue operating on the same scale after the transitional period (up to 1st October 2013 for on-farm sites and 1st October 2011 for others). They will be able to apply for a standard rules permit in the normal way if the composting operations are more than 250 metres from workplaces and dwellings. The interim arrangements for those that are not more than 250 metres from workplaces and dwellings are:

- we will not require a new SSBRA if the applicant has previously provided one as part of the exemption registration process and it is still relevant and suitable.
- we will not impose any general bioaerosol monitoring requirements within the permit pending the Defra review of waste policies

Existing permitted sites

We will carry out a selective review of existing permitted sites that are less than 250 metres from sensitive receptors, to ensure that the permits have adequate requirements for bioaerosol monitoring in accordance with the Association for Organics Recycling /Environment Agency standardised protocol for the monitoring of bioaerosols at open composting facilities. We will carry out this review on a risk-prioritized basis and vary permits as necessary (at no cost to the operators) to introduce these requirements.

The results of the subsequent monitoring should allow us to consider, with the operator, the need to review the operations and/or adopt additional measures to control bioaerosols (such as negative aeration or enclosure).

Further advice

Further advice on dealing with waste can be found on our website or by calling our customer service team on 08708 506 506.

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Definitions

composting operations

- Includes any associated waste storage and treatment operations carried out at the composting facility. Composting is the biological decomposition of biodegradable waste under conditions that are predominantly aerobic and that allow the development of thermophilic temperatures as a result of biologically produced heat.

sensitive receptors

- Sensitive receptors refers to people likely to be within 250 metres of the composting operation for prolonged or frequent periods. This term would therefore apply to dwellings (including any associated gardens) and to workplaces where workers would frequently be present. It does not apply to the operators of composting facilities or their staff while carrying out the composting operation as their health is covered by Health and Safety legislation.

acceptable levels at the sensitive receptors

- Refers to the concentrations of bioaerosols (as predicted or as derived from direct measurements) at the sensitive receptors which are attributable to the composting operations. The acceptable levels are 300, 1000 and 500 cfu m^{-3} for gram-negative bacteria, total bacteria and Aspergillus fumigatus respectively, as measured by the standardised monitoring protocol.

the maximum quantity of waste handled at any one time

- Refers to the total quantity of waste being stored or treated at any one time.

operations…likely to result in the uncontrolled release of high levels of bioaerosols

- Include the shredding of waste and the turning of waste in the sanitisation, stabilisation and maturation stages of composting where these operations are not contained or are not subjected to exhaust ventilation and scrubbing/filtering.

Explanatory note

Bioaerosols, composting and health effects

- Bioaerosols are complex mixtures of airborne micro-organisms and their products, and are ubiquitous, particularly in rural environments. The most serious health problems appear to arise from *Aspergillus fumigatus*, but there are other fungal spores and bacteria that cause problems. International studies have shown that there is a wide variability in individual susceptibility to bioaerosol exposure.
- Commercial scale composting activities tend to generate large amounts of bioaerosols and these are likely to contain human allergens and pathogens. They have potential effects on respiratory health and may cause headaches, nausea and fatigue. There has been very little investigation into the effects of community exposure to bioaerosols from composting, but there is some limited data that suggest that living close to a composting facility may be associated with an increased risk of adverse health effects. The consensus from various studies is that

bioaerosols from composting activities decline rapidly within the first 100 metres from a site and generally decline to background levels within 250m.

The way we regulate composting facilities

- Many small scale composting facilities will be able to operate without the need for an environmental permit. They just have to be registered with us as exempt waste operations. Larger scale facilities will need to operate under an environmental permit issued by us. This will either be a bespoke permit or a standard rules permit. Standard rules permits are available for composting facilities which are to be located more than 250 metres from dwellings or workplaces.

About the SSBRA

- Generally, the complexity of a risk assessment is related to the size and complexity of the proposed facility and the uncertainty of the risk posed, varying from a qualitative, largely generic approach at one extreme to a site specific quantitative risk assessment at the other.
- Standard methods of determining bioaerosol levels are available. However based on our present scientific understanding of bioaerosols, the way they behave and their health impacts we now consider that there is currently no suitable methodology for carrying out adequate quantitative SSBRAs for new composting facilities. Accordingly, we believe that we need to take a precautionary approach and not normally permit those facilities where we would have expected a quantitative SSBRA until such time as a suitable methodology becomes available.
- The types of new facilities affected by this are those that would have handled more than 500 tonnes of waste at any one time and would have carried out any "composting operations in the open that are likely to result in the uncontrolled release of high levels of bioaerosols", as defined above. In practice, this would not include situations where the entire composting operation is carried out inside a building, or where composting takes place outside, but using negative aeration and without turning. However it would include compost maturation in conventional outdoor turned windrows, carried out following other treatment operations such as in-vessel composting, treatment in a dry AD (anaerobic digestion) plant and treatment in an MBT (mechanical biological treatment) plant.
- Guidance on the evaluation of bioaerosol risk assessments for composting facilities is available on our website.