

Health, Safety & Environment Department

Waste Management Standards



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1. Introduction

The purpose of these waste management standards is to set out the requirements for managing waste associated with our activities and those over which we can be expected to have influence. Also, to implement adequate systems of controls in respect of waste management and to reduce the environmental impact of waste generated by our activities.

It is the responsibility of the land & planning team to commission relevant site investigation surveys at the pre-construction stage. These surveys must include waste characterisation and classification testing in accordance with EA Technical Guidance WM3, where it is envisaged soils will require removing from site as waste. This must be recorded through the pre-start meeting process. All relevant information must be filed in the Project Environmental Plan (green folder).

Commercial teams must ensure waste contractors have the appropriate environmental permit (England & Wales) / CAR authorisation (Scotland) or waste exemption and waste carriers licence, prior to removing waste from site (see section 6). This information must be passed onto the relevant team and recorded in the Project Environmental Plan. Waste Duty of Care documentation must be retained.

Furthermore, when placing orders for recycled aggregates, commercial teams must ensure the requirements of this standard are followed.

The Group Health, Safety and Environment Advisors will support constructions teams throughout the build process, through regular site visits.



2. Definitions & Acronyms

Controlled waste	Any substance or object that the holder discards, intends to discard, or is required to discard. All controlled waste is classified as either 'non-hazardous' or 'hazardous'.
Waste hierarchy	 Hierarchy to be applied to managing waste in order of priority: Prevent - eliminate the waste by using a different material / technique / design Reuse - reuse a substance or object in its original form. Where materials or objects are reused, they usually avoid becoming a waste (except soils, or where aform of treatment is required before the material can be used) Recycle - process a waste material into another form for use in a different application Recover - a form of recycling where a waste is processed prior to recycling, for example sorting at a waste transfer station. Can also mean incinerating for heat / energy recovery Dispose - discard a waste that has no further use, for example land-filling Managing waste in this order delivers environmental and cost benefits.
Inert waste (all 'inert' waste is classified as non- hazardous)	The term 'inert' is used to describe waste materials that will not change composition or degrade over time e.g. ceramics, concrete, masonry and brick rubble, minerals, stone etc. Under the waste classification system, these waste types are known as 'non-hazardous'. Clean subsoils (not topsoil) can sometimes be sent to an 'inert' waste landfill, but are classified as non-hazardous. Soils can only be sent to inert landfills if they meet the requirements under the specific Waste Acceptance Criteria (WAC) for that landfill.
Non-hazardous waste	Waste materials that may change composition and degrade over time but any resultant compounds do not pose a risk to the environment or human health.
Hazardous waste (in Scotland 'Special Waste')	There can be two types of material that can be classed as hazardous; those which are inherently harmful to the environment and or human health in any concentration and those which are deemed hazardous due to the concentration of substances within the material. For example, coal tar on its own is always hazardous, but asphalt that contains coal tar may be hazardous depending on the concentration of coal tar within the sample.



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2. Definitions & Acronyms

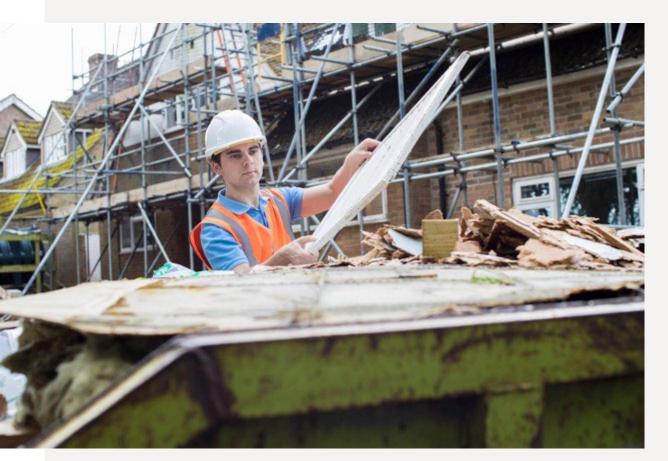
Hazardous waste premises registration	Code provided by Natural Resources Wales (in Wales) in the form 'ABC123' specific to a premises or site that produces hazardous waste. In England, codes must be generated by the business. Required before hazardous waste can be removed from the premises and must be included on hazardous waste consignment notes.
Waste producer	Anyone whose activities produce waste or who carries out pre-processing, mixing or other operations resulting in a change in its nature or composition.
Waste carrier	Any organisation involved in removing waste from sites must hold a valid wastecarrier's registration certificate issued by the Environment Agency / NRW / SEPA.
Waste managementfacility	Any facility or site that accepts waste for use, treatment (e.g. sorting, processing), storage or disposal. A valid Environmental Permit, exemption or must be held by any site or facility accepting waste. This includes development / construction sites accepting waste recycled aggregates or soils for reuse / recycling.
EWC / LoW	European Waste Catalogue / Lists of Waste Code: six-digit reference number for specific waste types.
Waste classification /characterisation test	Most wastes do not need sampling / testing in order to classify them in accordance with the European Waste Catalogue / Lists of Waste e.g. metals, timber, plastics etc. Some wastes must be sampled and analysed to identify which EWC code should be used to classify them. This includes soils, asphalt suspected of containing coal tar, materials containing asbestos etc.
Waste Acceptance Criteria (WAC) Test	Required for wastes intended for disposal at landfill sites. Criteria are in place for inert waste landfill and hazardous waste landfills. A WAC test must not be used to classify waste.
Aggregate Quality Protocol	Quality protocols explain when a waste derived material can be regarded as a non-waste product and no longer subject to waste controls.



2. Definitions & Acronyms

CL: AIRE	Contaminated Land: Applications in the Real Environment - an independent body that promotes the sustainable remediation of contaminated land and groundwater.CL: AIRE has developed a Code of Practice that when followed, allows suitable materials to be de-classified as waste and reused on other sites.	
Standard Industry Classification (SIC) code	 A Standard Industrial Classification (SIC) is used for administrative purposes as a convenient way of classifying industrial activities into a common structure. It is required on waste transfer notes and hazardous waste consignment notes to demonstrate which type of industry has produced the waste described on the document. Currently, the 2007 list of codes must be used for all waste transfer notes and hazardous waste consignment notes. There are a number of codes relevant to Persimmon (and our supply chain) activities including (but not limited to): 4310 Demolition contracting 43120 Groundwork contracting 41202 Construction of domestic buildings 39000 Asbestos removal work 43210 Electrical contractor 23690 Manufacture of other articles of concrete, plaster and cement 	





3. Managing Waste

Prior to any works commencing, the potential impacts from generating, handling, storing, treating, and disposing of waste must be assessed using the 'Environmental Aspect and Impact Assessment' form and 'Project Environmental Plan'.

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This initial assessment must identify any control measures required to reduce the impact of our activities.

Refer to:

EMS form 002 – Environmental Aspect and Impact Assessment EMS form 003 – Project Environmental Plan (England & Wales) EMS form 003 – Project Environmental Plan (Scotland)

Requirements for managing waste must be communicated to relevant staff and contractors including the use of site-specific inductions and Toolbox Talks.

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3. Managing Waste

3.1 Waste hierarchy

When considering management options for identified waste streams, both us and our supply chain partners must adhere to the principles outlined in the waste hierarchy.









Before any waste is removed from site the waste must be assessed and classified in accordance with WM3 Technical Guidance.

The assessment needed depends on the type of code(s) identified in WM3. Codes are divided into four types of entry:

- wastes that may be hazardous or non-hazardous, known as 'mirror hazardous' and 'mirror non-hazardous' entries
- wastes that are always hazardous, known as 'absolute hazardous' entries
- wastes that are always non-hazardous, known as 'absolute non-hazardous' entries.

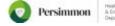




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4.1 Non-hazardous waste	4.2 Hazardous waste
 Absolute non-hazardous (AN) Wastes identified as 'absolute non-hazardous' do not require any further assessment. Examples of common types of non-hazardous wastes found on a construction site, but are not limited to: 15 01 01 – Paper & cardboard packaging 15 01 03 – Wooden packaging You can easily identify absolute non-hazardous entries by looking in WM3 Technical Guidance, Appendix A. Entries written in black text under the 'Description' column and with 'AN' listed in the 'Entry Type' column is considered non-hazardous. No further assessment is required. 	 Absolute hazardous (AH) Wastes identified as 'absolute hazardous' do not require any further assessment. Examples of common types of hazardous wastes found on a construction site include, but are not limited to: 13 07 01* - Oil & diesel 16 01 07* - Oil filters (from plant & machinery) 15 01 10* - Packaging containing residues or contaminated by hazardous substances 17 03 03* – Asphalt containing coal tar You can easily identify absolute hazardous entries by looking in WM3 Technical Guidance, Appendix A. Entries written in red text under the 'Description' column and with 'AH' listed in the 'Entry Type' column is considered hazardous. No further assessment is required.

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4.3 Mirror entries

Mirror entries (mirror non-hazardous' or mirror hazardous')

Wastes identified as mirror entries can be either hazardous or non-hazardous. Where mirror entries are identified, further investigation and or testing is required. Investigation works can come in the form intrusive samples i.e. soils which are sent for laboratory testing or by referring to the Safety Data Sheets of a product – it all depends on the type of waste being assessed.

The assessment must identify if the waste in questions exhibits any hazardous properties (HP). Examples of HP include, but are not limited to:

- Explosive
- Flammable
- Irritant
- Corrosive
- Ecotoxic

If waste exhibits any hazardous property, it will be considered hazardous (note there are 16 different categories that can lead to waste being considered hazardous). If investigations demonstrate the waste does not exhibit any hazardous properties it can be considered non-hazardous.

See below for some examples of common types of waste found on a construction site, which are considered mirror entries, thus requiring assessment to see if they exhibit any hazardous properties:

- Timber
- Insulation
- Gypsum based products

If the examples above do not exhibit any hazardous properties, they can be classified as non-hazardous. However, if they are found to exhibit any hazardous properties then they must be classified as hazardous.



4.4 Human Health Risk Assessment

Human health risk assessments taken from site investigation reports cannot be used to classify waste. Thresholds / levels used for assessing the suitability of soil for reuse on developments is different to that used in waste classification.

4.5 Waste Acceptance Criteria (WAC) Testing

Waste Acceptance Criteria tests must not be used to classify waste. WAC testing is a requirement if sending waste to landfill, as it determines how the waste will behave once it is buried.

It cannot be used to assess whether waste is hazardous or non-hazardous.





5.1 Recycled aggregate

Recycled aggregates are classed as waste, whether they are imported or generated as part of our work activities. Only recycled aggregates that have been produced in accordance with the Quality protocol: aggregates from inert waste (in England and Wales) or the SEPA Guidance on Recycled Aggregates from Inert Waste (in Scotland) are no longer waste. Both of these documents are considered approved guidance from a regulatory point of view.

The approved guidance aims to clearly set out the steps that must be taken for certain waste streams to become a non-waste product or a material that can be either reused by business or industry or supplied into other markets. This enables recovered products to be used without the need for waste regulation controls.

Demonstrating conformity with the approved guidance during the procurement or production of recycled aggregates means that the material can be produced or used without the need to apply waste legislation, as the material has been recovered and ceases to be a waste.



5.1 Recycled aggregate

Procurement

All procurement and production of secondary or recycled materials should be done in accordance with the approved guidance. Specifying the use of the approved guidance must be considered prior to works commencing on site and as such consultation with the local Group Health, Safety and Environment Advisor is required.

Material produced in accordance with the approved guidance can be used once verification of compliance with the protocol has been confirmed. When this material is received on site, it should not be accompanied by waste transfer notes, but by delivery notes or invoices stating that the material meets the requirements of the approved guidance.

Recycled aggregates that do not meet the approved guidance may still be used on site within specific limits and must consist of inert material only (e.g. concrete, bricks, tiles, ceramics). The site must have the relevant environmental permit, waste exemption, or operate in accordance with the CL: AIRE (Contaminated Land: Applications in the Real Environment) Definition of Waste Code of Practice (DoWCoP), with a suitable Materials Management Plan (MMP) and associated Qualified Person sign-off in place.





5.1 Recycled aggregate

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On-site crushing

There may be occasions where site-won inert materials such as bricks, blocks etc. can be processed to be reused on-site. See below for further details.

England & Wales

Activities such as crushing and screening are covered by Environmental Permitting Regulations and regulated by the Local Authority.

As such, any mobile plant brought to site must have a permit to undertake these activities. A mobile plant, is any plant which is designed to move or be moved on roads or otherwise, and is used to carry on any activity:

- Crushing
- Grinding
- Size reduction
- Screening

Before any such activities, we must have a copy of the mobile plant permit (also known as a 'Part B' permit) and evidence that the operator of the mobile plant has notified:

- Local authority (regulator) who issued the permit
- Local authority (regulator) in whose area the mobile plant is to be operated

5.1 Recycled aggregate

Scotland

Operators of mobile plant must have a 'Part B' Pollution Prevention and Control (PPC) permit, issued by SEPA to move / operate plant on construction sites.

Before the arrival of any plant on site, we must have a copy of the 'Part B' permit and evidence that the operator of the mobile plant has notified SEPA of their intention to use equipment on our site.

Site teams should have copies of these documents, prior to any activities – these should be filed in the Project Environmental Plan. Also, see below for testing requirements.

Where the site intends to process inert materials on site, the local Group Health, Safety and Environment Advisor should be notified at the earliest opportunity to ensure compliance with the regulations.



Recycled Aggregates from Inert Waste

Introduction

The UK is fortunate in having an abundant supply of primary aggregates that can be sourced from numerous sites throughout the country. However, there is growing pressure on the industry to move towards more sustainable construction methods and reduce the consumption of primary aggregates by switching to recycled or secondary aggregates.

Approximately 200 million tornes of aggregates are used each year in the UK as raw construction materials and of this supply, around 57 million tornes are already derived from recycled or secondary sources. 28% of UK aggregate demand is met with these more sustanable resources. In Scotland construction aggregate demand is some 29 million tornes of which in the region of 20% is met with recycled aggregates.

The purpose of this guidance is to clarify the point at which recycled aggregates manufactured from inert waste, in SEPA's view, cease to be waste and waste management controls are no longer required.

Recycled Aggregates & End of Waste

In SEPA's view Recycled Aggregate will normally be regarded as having ceased to be waste, and therefore no longer subject to waste management controls, if:

- Through clear waste acceptance criteria, inputs are limited to the specified inert wastes and well controlled
- The aggregate is produced under Factory Production Control as required by the European standards.
- It conforms to the requirements of the appropriate specification for the use for which it is destined.
 It requires no further processing, including size reduction, prior to final use.
 It is dispatched from the site for a certain use.

If all of these requirements are met, the Recycled Aggregate will not be regulated as waste once dispatched from the site for a certain use.

Where these tests are not satisfied, for example the aggregate does not conform to the relevant specification, the aggregate will normally be considered to be waste. In such circumstances, the transport, storage and use of the waste aggregate must be carried out in compliance with the <u>duty of care</u> obligations and the use of the aggregate in construction will require an <u>exemption</u> from waste management licensing (e.g. Paragraph 19 for the use of waste in construction). For example, coarse rubble may be suitable for some hard standing constructions but this material is waste and an exemption is required to be in place to authorise use.

Waste Acceptance Criteria

Only the waste types listed in Annex 1 to this statement can be accepted for the manufacture of recycled aggregate.

The producer must develop 'waste acceptance criteria' specific to each site to ensure that only inert waste is accepted for processing. These criteria must be followed at all times.

Every load must be inspected visually, both on initial receipt and after tipping, to ensure compliance with the acceptance criteria.

SEPA Guidance | WST-G-033 | version 2 | issued October 2013

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5.1 Recycled aggregate

Testing and certification

Recycled aggregate, whether imported or produced on site, must be done so in accordance with a Factory Production Control (FPC) manual.

The manual must outline the procedures for producing aggregates for use in construction, combined with routine sampling and testing, to provide ongoing assurance that the aggregates produced conform to relevant Standards.

For unbound recycled aggregates produced on site, testing must be completed in accordance with BS EN 13242 to demonstrate compliance with the aggregate product standard. Testing may include constituent parts, grading, resistance to fragmentation etc. and should be detailed in the producer's manual.

Types of recycled aggregate used on site can include, but is not limited to:

- 10/20 pipe bedding,
- 6F2 capping (site won material)
- 6F5 capping (imported material)
- Type 1 sub-base

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5.1 Recycled aggregate

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Testing and certification (cont'd)

The producer of the recycled aggregate must provide us with all of the information / testing outlined above in order to demonstrate conformance with requirements. Doing so demonstrates that any materials produced have been done so in accordance with an aggregate product standard and are no longer considered as waste.

Testing frequency

Produced on site

Testing must be completed in accordance with BS EN 13242, and no less than once per month of production. If mobile plant is on site less than this, one round of testing is still required. Longer than this will require further testing.

Imported

As above, testing must be completed in accordance with BS EN 13242. Testing certificates must be no older than 3 months from the date of delivery of materials to site.

Copies of relevant testing certificates must be retained on site. The Commercial Department should complete the recycled aggregate checklist prior to placing orders for recycled aggregates.

Refer to:

EMS <u>guidance</u> – Recycled Aggregate Purchasing & Use EMS <u>guidance</u> – Mobile Plant & Crushing EMS form <u>014</u> – Recycled Aggregate Checklist



5.2 Incinerator bottom ash aggregate (IBAA)

Unbound municipal incinerator bottom ash aggregate (IBAA) can be used in certain construction activities. Unbound IBAA includes IBAA in hydraulically-bound mixtures (HBMs). A HBM is where IBAA is mixed with water and a binder such as cement to form a mixture which then sets.

Different rules apply to the safe storage and use of IBAA in England, Scotland and Wales. Ultimately the use of IBAA must not endanger human health or the environment.

England

The Environment Agency (England) has strict rules outlining when IBAA can be used on construction projects. Furthermore, it outlines in which scenarios it can be used and the volumes permitted; <u>EA Regulatory Position Statement</u>.

Refer to EMS guidance – Incinerator Bottom Ash Aggregate (IBAA) (England)

Scotland

The Scottish Environment Protection Agency has strict rules outlining when IBAA can be used on construction projects. Furthermore, it outlines in which scenarios it can be used and the volumes permitted; <u>Position Statement Use</u> of Incinerator Bottom Ash Aggregate (sepa.org.uk).

Refer to EMS guidance – Incinerator Bottom Ash Aggregate (IBAA) (Scotland)

<u>Wales</u>

An Environmental Permit is required in Wales for the use of IBAA. As part of the permitting process sites will have to be assessed through the use of a site specific risk assessment.







5.3 Soils

Excavated soils are not waste if the following applies:

The material is: 'uncontaminated soil and other naturally occurring material excavated in the course of construction activities where it is certain that the material will be used for the purposes of construction in its natural state on the site from which it was excavated' (Waste Framework Directive 2008/98/EC).

Chemical analysis

Whether soil is contaminated or not must be confirmed in associated site investigation / chemical analysis / borehole records. Other naturally occurring material means; clinker, stones, gravel, etc. Man-made materials such as asphalt, ash, concrete, made ground, hard core etc., are not considered to be 'naturally occurring'.

Certainty of use must be demonstrated for example by:

- Construction plans or designs for the site in question. These may contain estimates of excavated amounts and whether there will be a surplus or deficit of such material
- Cut and fill drawings
- Planning permission conditions

The site' in relation to construction activities is usually defined in relation to associated planning permissions.

Soils that are not suitable for use or are surplus to requirements are waste. The use, treatment (including blending and soil improvement), storage and disposal of waste soils are subject to environmental permitting legislation. The transport of waste soils is subject to the duty of care. Soils must be classified as either non-hazardous or hazardous in accordance with Technical Guidance WM3.

This involves chemical analysis to determine the presence and concentrations of potential contaminants.



5.3 Soils

Waste soil must be classified as either non-hazardous (EWC: 17 05 04) or hazardous (EWC: 17 05 03). Soil analysis must be accompanied by interpretive reports that provide the EWC/LoW classification.

The preference for these interpretive reports is to be in the format of those produced by HazWaste Online[™] or similar.

Soil that contains visible fragments of asbestos is classified as hazardous waste. Where soil contains <0.1% concentration of asbestos fibres only (and no other substances that result in it being hazardous), it will be non-hazardous and may be used on site subject to risk assessment by competent persons but only as subsoil i.e. not as surface topsoil.





5.3 Soils

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Topsoil

Testing and certification is required for imported and pre-existing on site (but moved during the works rather than left in-situ).

This includes details of asbestos sampling and testing:

- Topsoil found to contain a visible fragment of asbestos containing material (ACM), where the concentration of asbestos in the piece of ACM is ≥ 0.1% (weight for weight), or asbestos fibres at concentrations ≥ 0.1% (weight for weight) will mean the soil must be rejected and disposed of as hazardous waste (special waste in Scotland).
- Topsoil found to contain asbestos fibres where the concentration of fibres is < 0.1% but $\ge 0.01\%$ must be rejected and disposed of as non-hazardous waste.
- Topsoil containing asbestos fibres at concentrations < 0.01% may be used further to risk assessment by a competent person (e.g. environmental consultancy) and with local planning authority approval.

Asbestos screening and concentration analysis should be specified separately when commissioning waste classification testing / analysis.

Refer to: EMS standards – Soil Management EMS <u>guidance</u> – Topsoil Purchasing & Use



5.3 Soils

Persistent organic pollutants (POPs)

Where the site history suggests a risk of POPs being present (i.e. sites with high levels of ash or former combustion sites, pre-1990s substation & transformer sites and agricultural land with pre-1980s pesticide use) these should be included in waste classification tests.

The suitability of soils for reuse depends on the levels of potential contaminants on the site of use and the final use of the site (i.e. residential, commercial etc.).

Refer to EMS standards – Soil Management EMS <u>guidance</u> – Persistent Organic Pollutants (POPS) Chemicals

WAC testing

Some soils (not usually topsoil) may be suitable for disposal at 'inert' landfill sites. This is subject to waste acceptance criteria testing against the criteria for inert waste landfills. Disposal at inert landfill is inexpensive compared to non-hazardous landfill due to differences in landfill tax; therefore, waste acceptance criteria testing must be used to identify the most suitable option for all soils.

Contaminated soils may require disposal at hazardous waste landfill sites. This is subject to waste acceptance criteria testing against the criteria for hazardous waste landfills. The results of all tests undertaken must be forwarded to both the company removing the soil and the facility receiving the soil.

Undertaking thorough sampling and testing of soils may result in significant cost savings where soils are suitable for disposal at inert landfill sites. Sampling and testing of soils destined for landfill must be done in accordance with relevant guidance.

Hazardous soils must not be mixed with non-hazardous material / soils and must be segregated on site whilst awaiting reuse/removal.



5.3 Soils

Reuse of soils

Excavation wastes should be diverted from landfill wherever possible, for example by sending to other construction projects holding appropriate exemptions (such as a U1 exemption) or by implementing the CL: AIRE DoWCoP or meeting relevant regulatory guidance.

Refer to EMS standards – Soil Management

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5.4 Asphalt/ bituminous waste

Asphalt and tarmac can be hazardous waste if it contains coal tar substances (>0.1%) that were used in asphalt binders prior to approximately 1990. If asphalt / tarmac destined for disposal was laid after this time (including any layers beneath the surface), then it will not be hazardous waste.

If asphalt / tarmac destined for disposal was laid prior to 1990 or has older layers beneath the surface, then the material must be tested to demonstrate whether or not it is hazardous waste.

Chemical analysis must be undertaken and interpreted in accordance with Technical Guidance WM3 to provide the relevant European Waste Code as follows:

- 17 03 01 bituminous mixtures containing coal tar (hazardous waste), or
- 17 03 02 bituminous mixtures other than those mentioned in 17 03 01 (non-hazardous waste)

The preference for interpretive reports is to the in the format of those produced by HazWaste Online[™] or similar.

Asphalt / tarmac waste destined for disposal at landfill must also be subject to Waste Acceptance Criteria (WAC) testing to identify what type of landfill is suitable for the material (inert, non-hazardous or hazardous).

5.4 Asphalt / bituminous waste

Reuse of asphalt waste containing coal tar (AWCCT)

<u>England</u>

AWCCT may not be reused on site as fill unless it has been through a waste treatment process. AWCCT can be used on site providing it has been treated (e.g. bound) and is used in sub-surface layers below hard paving structures. Refer to <u>EA Regulatory Position Statement</u> for further guidance.

Scotland and Wales

AWCCT cannot be used on site.

5.4 Asphalt / bituminous waste

Reuse of asphalt/ bituminous waste (non-hazardous)

Non-hazardous asphalt material can be reused under an exemption for specific purposes.

- England & Wales <u>U1 exemption</u> (free of charge)
- Scotland Paragraph 19 exemption (charges apply subject to tonnages)

Register here for <u>England</u> Register here for <u>Wales</u> Register here for <u>Scotland</u>

The local Group Health, Safety and Environment Advisor should be contacted for advice.

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5.5 Plasterboard & Gypsum

Waste plasterboard / gypsum products should be segregated and put into covered waste containers pending removal from site.

Alternatively, if using the British Gypsum return scheme, they can be bagged up (using bags provided) pending collection from site.

Uncontaminated plasterboard and plaster products are classified as non-hazardous waste.





5.6 Road Sweeper Arising's

The priority should always be to dispose of road sweeping waste off-site. Adopting this approach poses the least risk to the environment.

Road sweepings can contain mixed waste materials, including leaves, grit, mud, litter, glass, oils, paper, plastics, and cans. The silt/muds may contain heavy metals, other contaminants (e.g. road salt) or de-icing chemicals and have high leachable organic content.

If storing sweepings on-site, the storage and dewatering of street sweepings must take place on an impermeable surface with sealed drainage. Any residual wastes (e.g. silt, metals, litter etc.) must be removed by an appropriately authorised waste contractor (this is considered non-hazardous waste).

All sweepings removed from site must be done so by a licensed waste carrier and treated or disposed of under an appropriate permit, at a facility that can accept EWC 20 03 03. Failure to ensure this happens would be a breach of waste regulations.

Road sweeper companies should provide all required waste Duty of Care documents prior to sweeping, including waste carrier licence and either:

- a permit to dispose Trade Effluent to specified wastewater treatment plant inlet works or;
- a permitted industrial wastewater effluent pre-treatment plant.

Checks must be made during the process of obtaining a road sweeping company for the project.

Refer to: EMS standards – Pollution Prevention EMS <u>guidance</u> – Road Sweepers

5.7 Customer Care Waste

Customer care will often produce waste which requires disposal. In circumstances where activities are taking place on a live site, wastes should be disposed of in the appropriate containers / skips provided by Persimmon.

In circumstances where is this not option i.e. the development is finished and there is no option to use facilities provided by Persimmon, there are two options available:

- · Request that the homeowner takes responsibility for the management of those materials
- Remove materials from site for disposal / recovery.

If following the second option, the materials must be stored securely and taken to an agreed collection point under the control of Persimmon, where they can be collected ready for their onward disposal / recovery (by a suitably licenced waste management contractor).

Waste transfer notes

Waste transfer notes (WTNs) must be completed if removing waste from a customer's home where there are no facilities to dispose of the waste on site, i.e. the development has finished. Customer Care operatives must complete the Customer Care Waste Transfer Note, with a copy given to the customer, and a copy or photo/scan retained by Persimmon. WTNs must be completed as outlined in section 6.8 below and be retained for 2 years.

Refer to EMS <u>guidance</u> – Customer Care Waste Refer to EMS <u>form 017</u> –Customer Care Waste Transfer Note



5.8 Paint cans / containers

All paint cans / containers must be segregated from other waste streams, pending reuse as part of the AkzoNobel / Dulux 'Can Recycling Scheme'.

<u>Subcontractors</u>

Subcontractors are responsible for the segregation and bagging of all empty (AkzoNobel / Dulux only) paint cans / containers, pending collection from site by AkzoNobel / Dulux.

Reasonable steps must be taken to remove liquid paint from cans, such as draining / wiping liquid paint out from partially used containers or by scraping solid dry masses out.

The dry cans (and lids) should be placed into bags provided by AkzoNobel, according to their contents:

- Empty water-based paint containers non-hazardous (blue bags)
- Solvent based paint cans / containers hazardous (red bags)

No unrelated wastes should be left inside the containers, and the bagged cans / containers should be passed onto the Site Manager for their safe storage, pending collection from site. The Contractor is responsible for notifying their local Dulux Decorator Centre to arrange collection (usually with 74 hours).

Note - you can usually identify a hazardous product due to its hazard symbol(s) on the can.





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5.8 Paint cans / containers

Persimmon generated cans / containers

Site Managers must ensure that bagged cans / containers are stored within the compound area, preferably within the hazardous waste storage area, pending collection from site.

Cans / containers generated by Customer Care Operatives must be treated and segregated in the same manner as outlined above, pending collection from site.

Waste transfers notes / hazardous waste consignment notes will be provided by AkzoNobel / Dulux upon collection of the waste. These must be retained as outlined in Section 6.12.



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Anyone who imports, produces, carries, keeps, treats, or disposes of waste is subject to a duty of care whereby they must take all reasonable and applicable measures to:

- Prevent another person illegally treating, keeping, depositing, or otherwise disposing of the waste
- Prevent the escape of waste
- Ensure that transfer of the waste only occurs to an 'authorised person' and that the transfer is accompanied by a written description of the waste

6.1 Pre-start checks

Groundworks contractors

As part of the tender process, groundworks subcontractors must provide the Commercial team with relevant information on waste carriers and waste facilities which are proposed to be used. Groundworkers must be issued with, and complete, the Waste Duty of Care Schedule form (schedule), as part of their tender return.

Upon return, all waste carrier licences, permits / licences and or exemptions must be checked by the Commercial team with the relevant Regulator, to ensure they are genuine and valid (via the relevant public register – see section 6.10) prior to allowing waste to leave site.

A PDF print out of the check should be provided to the Technical team for compiling into the PEP. The approved schedule must also be forwarded to the Technical team, where details of the waste carriers and waste facilities proposed, will be recorded in the Project Environmental Plan.

Refer to: EMS <u>form 013</u> – Waste Duty of Care Schedule EMS <u>guidance</u> – Waste Duty of Care Checks EMS <u>guidance</u> – Waste Types Helpcard



After start on site

There may be occasions where waste carriers and waste destinations change, once activities begin on site. In this instance groundworks contractors must gain approval from Persimmon (Commercial or Construction team) to use those contractors, prior to any waste leaving site. Relevant checks must still be made as detailed above.

Any changes must be recorded by the Construction team in the Project Environmental Plan, Section 7.3.

Persimmon appointed waste management contractors

Prior to the appointment of any waste management contractor, we must be in receipt of a copy of their waste carriers licence (or registration number) and a full copy of their environmental permit / licence and or exemption. These must be checked on the relevant public register, as detailed above.

Alternatively, a PDF print out of the check from the relevant public register can be provided to the Technical team for compiling into the PEP.

Permits/licences/PDF printouts must all be passed onto the Technical Team for compiling into the Project Environmental Plan.

Refer to: EMS <u>form 013</u> – Waste Duty of Care Schedule EMS <u>guidance</u> – Waste Duty of Care EMS <u>guidance</u> – Waste Types Helpcard



6.2 Hazardous waste / special waste

When transferring hazardous / special waste an accompanying Hazardous / Special Waste Consignment Note (H/SWCN) must be completed and this must be kept for a period of 3 years. As the producer of the hazardous waste, it is our responsibility to ensure that the consignment notes are completed correctly.

The consignment note must have 5 parts (A to E). Each part must be filled out in order, by the right person, at the right time. We must complete **Parts A and B**. For further guidance please refer to <u>Gov.uk</u>.

It is acceptable for subcontractors / waste management contractors collecting the waste to produce the note on our behalf, but we must ensure that all the information is correct.

<u>Part E</u> – this must be returned to Persimmon by the receiving site to confirm receipt of the waste. This demonstrates that the waste has been safely received and fulfils our Duty of Care, in respect of its onward disposal / recovery by a suitably permitted / licenced site.

Scotland

All special (hazardous) waste produced in Scotland must be consigned using a SEPA-issued consignment note or code, regardless of its final destination within the UK. You can purchase codes directly from SEPA via: <u>https://webpayments.sepa.org.uk/</u>

Wales - hazardous waste producer registration

You must register premises in Wales where you produce or hold >500kg of hazardous waste in any 12-month period. NRW will issue a unique premises code (3 letters plus 3 digits) to use on all HWCNs. This does not apply in England or Scotland.

6.3 Waste storage and segregation

We must ensure that waste is stored in such a way as to prevent any escape or release of waste materials.

It is a legal requirement to segregate hazardous waste streams from non-hazardous waste streams. All sites must be provided with a Hazardous Waste Station (HWS) to enable the segregation of hazardous packaging waste (see example of setup to right).

Containers for hazardous waste must be either 2001 drums or lockable wheelie bins. As a minimum, containers must be provided for:

- Adhesives / mastics / resins
- Pressurised containers / aerosols
- Paints cans / containers (see section 5.8 above)

The HWS should be positioned within the site compound. Labelled wheelie bins or similar may be positioned around site to aid with the segregation of hazardous waste. These can later be emptied within the hazardous waste station, ready for onward disposal.

Drums / containers used for the HWS must not leak, they should be protected from the rain to prevent rainwater ingress (e.g., must have lids) and be stored away from drains, gulley's etc.



6.3 Waste storage and segregation

Non-hazardous Waste

Skips must be stored in a dedicated waste management area.

To promote the recovery of waste, and reduce disposal costs, the following non-hazardous waste streams should be kept separate from general waste:

- Inert / masonry type materials i.e., concrete, bricks / blocks, tiles, ceramics, stone etc.
- Gypsum and plasterboard products
- Paints cans / containers (see section 5.8 above)

Inert

If inert materials are being stored pending crushing / reuse on site, they can be stored over open ground, but the materials must not pose a risk to the environment i.e., be stored away from drains etc.

Plasterboard

Plasterboard can be stored in British Gypsum provided bags, if using their Return Scheme. Otherwise, it should be stored in covered containers / skips pending removal from site – owing to the fact the Waste Management providers often charge on the weight of the skip and not the size i.e. 8cu yard etc.

All waste containers (skips, bins etc.) must be labelled to identify their contents and to promote the segregation and recovery of waste. Signage is available via Glendining Signs.



Examples of signage available via Glendining



6.3 Waste storage and segregation

Site teams must also ensure that:

- · Waste is securely stored to prevent unauthorised access and windblown material
- Waste is stored in designated areas / containers
- Waste storage areas and containers are located away from watercourses or drains (>10m)
- Waste storage areas are kept tidy

No waste materials can be stored for longer than <u>**12 months**</u> – after this period, the waste may be considered a permanent deposit by the regulator. This does not include soils pending reuse on site.

Other considerations:

• Soils – should be segregated into topsoil and sub-soil stockpiles, with signage provided.

Refer to: EMS <u>guidance</u> - Waste Storage and Segregation HS&E Dept. <u>signs / posters</u> – Waste Signage





6.3 Waste storage and segregation

Persimmor

Asbestos

Asbestos waste must be stored separately to any other hazardous waste. Any waste that contains asbestos, or is contaminated with asbestos, must be double-bagged and placed in a covered, locked skip. This includes overalls, over-shoes, sampling wastes and respiratory protection equipment that have come into contact with asbestos.

Soils (contaminated)

Soils may be contaminated with heavy metals, hydrocarbons, asbestos etc. Where contaminated soils have been identified consideration must be given to the safe storage of these materials when excavated. Such soils must be stored on impermeable surface e.g. polythene liners/hardstanding to prevent cross-contamination with clean soils.

Furthermore, contaminated soil must be stored >10m from any surface waters e.g. drains, watercourse etc. Where asbestos has been identified, suitable signage must be erected to alert people of its presence.

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6.3 Waste storage and segregation

Asphalt waste containing coal tar (AWCCT)

Asphalt waste containing coal tar is considered to be hazardous waste where the level of coal tar is >0.1%. Any AWCCT excavated during the course of works must be stored on an impermeable surface e.g. polythene liners/hardstanding and be stored >10m from any surface waters e.g. drains, watercourse etc.

Fluorescent tubes

Fluorescent tubes must be kept segregated in a storage container (often known as a 'coffin') to prevent damage during storage and transport, due to their fragility.

IT equipment

All IT equipment must be returned to the IT department for assessment to determine whether it can be repaired, recycled, or re-used as a whole or in part. As such no IT equipment can be classified as waste until such checks have been completed.

Waste batteries and accumulators

It is a legal requirement for waste batteries and accumulators to be collected and recycled separately from other waste. Persimmon sites and premises must make arrangements to comply with this requirement, where appropriate.

Refer to EMS guidance - Waste Storage & Segregation





6.4 Waste storage and segregation - Wales

Persimmon

In Wales, all sites and offices must comply with the Workplace Recycling Regulations.

This requires for all sites and offices to provide bins / containers to segregate the following waste streams, ready for their separate collection:

- Food waste
- Paper and cardboard
- Glass
- Metals, plastics and cartons (aka food waste packaging)

This is in addition to the requirements outlined above, in Section 6.3.

Note - there must be no mixing of recyclable waste streams.

Cymru yn ailgylchu Wales recycles

6.5 Treatment of waste

Under no circumstances can waste be subjected to any treatment process without having the correct permission(s) in place.

Treatment activities can include screening, crushing etc. Examples of types of activities which require a permit / licence or exemption include:

- Screening mixed waste to remove smaller fractions i.e. fines / soils
- Crushing inert materials on-site for reuse (on-site or off-site) see section 5.1

You can carry out some treatments on waste to help with storage and collection, such as separating wastes into different types. These treatments are only to make waste you have produced easier to store and collect for recovery or disposal somewhere else.

The treatments must not result in a change in the characteristics of the waste. Treatment must be purely to help with transport of collection of different wastes.

Examples of acceptable treatments include:

- compacting paper and cardboard to increase the amount of waste that can be stored within a container
- shredding confidential papers for security purposes
- separating recyclables such as paper, card, plastic and glass from mixed wastes into separate containers





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6.6 Waste management facilities

Facilities accepting waste such as waste transfer stations, materials recycling facilities and landfill sites are required to have an environmental permit or exemption notification which is issued by the environmental regulator.

Before allowing any waste to leave its sites or premises, we must:

- Ensure that the facility has a valid environmental permit, licence or exemption notification
- Check that the environmental permit, licence or exemption notification allows the facility to accept all the types of waste materials that they are planning to send there

The Commercial team must carry out the necessary checks prior to waste leaving site. Copies of permits/licences/exemptions must be forwarded to the Construction team and held on site for the duration of the development. Details of the waste carriers and waste facilities used must be recorded in the Project Environmental Plan.

If there is any concern about the facility or location where the waste is being taken the local Group Health, Safety and Environment Advisor must be notified immediately.

Our sites or premises receiving or storing waste may require an environmental permit or exemption. This includes sites receiving waste from another Persimmon site or premises. Contact the Group Health, Safety and Environment Advisor for further advice.

6.7 Exemptions

Some low-risk activities involving the treatment, storage or use of waste may require an exemption from the relevant regulator. These activities include:

- Treatment of waste such as screening, blending and crushing or chipping / shredding of plant matter
- Use of waste such as using crushed concrete for construction purposes (where it has not been produced in accordance with the relevant approved guidance)
- Storage such as temporary storage at premises other than where the waste was generated

Exemptions are typically free of charge and are valid for a few years. Specific conditions must be met. Exemptions should be registered by or with the advice of the relevant Group Health, Safety and Environment Advisor and details of exemptions should be held on file.

In England, exemptions can be registered with the Environment Agency, in Wales with Natural Resources Wales and in Scotland with SEPA.



6.8 Waste transfer

Any business or organisation removing any waste from our sites or premises must provide details of their waste carrier registration certificate, details of the waste facility to be used and evidence that the proposed destination can legally accept the waste.

All waste carrier certificates, and environmental permits must be checked by the Commercial team with the relevant Regulator to ensure they are genuine and valid (via the relevant public register).

In addition to this the business or organisation must provide us with a record of the waste movements in the form of a fully completed waste transfer note or hazardous waste consignment note (special waste consignment note in Scotland).

6.8 Waste transfer

Subcontractor managed waste

Subcontractors must provide copies of all waste transfer notes and/or hazardous waste consignment notes (special waste in Scotland) for wastes removed on a weekly basis to Persimmon (by no later than the first working day of the following week). This can be in the form of a scanned PDF document, via email or physical copy. This paperwork must be retained by Persimmon as outlined in section 6.11.

Season tickets

For activities like 'muck away' a single waste transfer note can be used (often referred to as a season ticket). A season ticket is a single WTN that covers the movement of non-hazardous waste covering a period of time. The ticket can last up to one year.

It can be used for the transfer of the same type of non-hazardous waste (e.g. soils) with the same waste carrier from the same site. Any changes in the haulier/waste carrier will require a new ticket. Similarly, if the waste is taken to another site a new ticket is required. A record of the collection times and the quantity of waste must be maintained.

6.7 Waste transfer

Persimmon managed waste

Copies of all waste transfer notes and/or hazardous waste consignment notes (special waste in Scotland) must be retained as outlined in section 6.11.

Waste brokers

Any business or organisation arranging waste collection services on behalf of us must hold a valid waste broker's registration. Waste brokers must ensure that all organisations removing waste from Persimmon sites are individually registered as waste carriers with the relevant regulator. Evidence of these registrations must be provided to Persimmon prior to any waste being removed by these contractors.

All sites must obtain details of where waste from Persimmon premises or sites is taken to and ensure that a valid environmental permit or exemption is in place for that facility.

6.9 Waste transfer notes

All non-hazardous waste removed from our premises or sites must be accompanied by a completed waste transfer note. Legible copies of waste transfer notes must be either held on site or stored in a shared electronic folder that the Construction team can access and kept for two years following date of issue (see Section 6.11).

Waste transfer notes are required for all movements of excavated soils, skips, road sweeper arising's, septic tank / toilet waste, wheelie bins etc.

All waste transfer notes must include:

- A written description of the waste (e.g. mixed metals, wood, plasterboard, mixed construction waste, uncontaminated soil & stones, etc.)
- The relevant European Waste Catalogue (EWC) or Lists of Waste (LoW) Code
- Whether the waste is loose or in a container and the type of container (e.g. skip, drum, bin, bag, tanker etc.)
- The date and place of transfer
- The standard industry classification (SIC) code of the waste producer
- · The company name and address of the waste producer and waste carrier
- The waste carrier's registration number
- If the waste carrier holds an environmental permit, the permit number
- If the waste carrier is also a broker, their waste broker registration number
- Confirmation that the waste producer has applied the waste hierarchy to the waste described on the waste transfer note)
- The document must be signed by the waste producer and the waste carrier at the time of transfer



6.10 Hazardous / special waste consignment notes

All hazardous waste removed from our premises or sites in England and Wales must be accompanied by a completed hazardous waste consignment note or special waste consignment note in Scotland.

A copy of each hazardous waste consignment note must be taken before the waste leaves site. The waste carrier is responsible for ensuring that following disposal of the waste at the relevant permitted / licensed facility, a further copy of the hazardous waste consignment note is provided within 14 days showing acceptance of the waste at the facility named on the hazardous waste consignment note (Part E). Legible copies of hazardous waste consignment notes must be kept for three years following collection.

Hazardous wastes must be segregated at source for subsequent treatment / disposal and must not be mixed with non-hazardous wastes.

Hazardous waste consignment notes must contain all information as listed in Section 6.7; Waste Transfer Notes, plus the following:

- Consignment note code (or number)
- The chemical / biological components in the waste and their concentrations
- Physical form of the waste (gas, liquid, solid, powder, sludge or mixed)
- The relevant Hazard Property Code (from WM3), e.g. HP1 explosive, HP7 carcinogenic
- Part E where the receiving facility signs to acknowledge that they have received the waste (this should be received within 14 days of the waste being removed)

6.10 Hazardous / special waste consignment notes cont.

In Scotland, hazardous waste is known as 'special waste' and must be transferred using special waste consignment notes as follows:

- Five copies of the special waste consignment note must be completed (Part A Consignment Details and Part B Description of the Waste) by the waste producer (or Consignor)
- One copy must be sent to SEPA prior to waste being removed
- The Waste Carrier must complete Part C Carriers Certificate, on all four remaining copies
- The Consignor must complete Part D Consignor's Certificate and retain one copy (for three years)
- The Waste Carrier must take the remaining three copies, ensure they travel with the waste and are given to the receiving waste facility (Consignee) on delivery of the waste
- The waste facility must complete Part E Consignee's Certificate on receipt of the waste then;
 - Retain one copy (for three years)
 - o Give one copy back to the waste carrier
 - o Issue one copy to SEPA
- The Waste Carrier keep their copy of the fully completed Consignment Note for three years

Health, Safety & Environmen

6. Duty of care

6.11 Public registers

Environmental regulators hold public registers of Waste Carrier Certificates, Environmental Permits and exemptions. These can be used to check the validity of such authorisations.

England

Environmental permits for waste facilities Waste carriers, brokers and dealers, waste exemptions

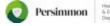
Wales

Check for a permit, licence or exemption (Public Register) Waste carriers, brokers and dealers public register

Scotland

Waste carriers and brokers Other registers via <u>email</u>





6.12 Records

Details of both waste carrier registrations and environmental permits/licences and or exemptions must be kept for all contractors removing waste. This must be recorded in the Project Environmental Plan, Waste Duty of Care Schedule.

Retention of paperwork

Legible copies of all waste transfer notes and hazardous waste consignment notes (or special waste consignment notes in Scotland) must be retained for all waste removed from site (this includes both Persimmon and subcontractor managed waste). Waste transfer notes must be held for two years, while hazardous waste (and special waste) consignment notes must be held for three years.

Waste documentation can be retained in two ways:

- Electronically on the development project folder, managed by the Commercial team or;
- · Physical paper copies, stored on site, managed by the Construction team (in a waste documentation folder)

Electronic storage

Documentation stored electronically can be in the form of scanned or photographed tickets (PDF or jpeg). A folder named 'waste documentation' must be created in the development project folder. In here subfolders should be created for each month of the project duration e.g. Jan-23, Feb-23 etc. Copies of tickets should be saved into the relevant month (all tickets will have the date of removal on them). This is to allow for a simple audit trial.

Waste portals

Some waste management contractors no longer provide physical tickets and alternatively provide access to a waste portal service. In this instance the Commercial team must download monthly summary reports and save them into the development project folder, as outlined above (on a monthly basis).

Physical copies

Scanned printed copies of the original tickets can be held on site, if necessary. They must be stored in chronological order (most recent come first) in the waste documentation folder. Site teams must ensure copies of tickets are provided for all Persimmon and subcontractor waste removed from site (see section 6.7 above re: subcontractor managed waste).



6.13 Duty of Care Schedule (PEP)

The Waste Duty of Care Schedule in the Project Environmental Plan (PEP) should be reviewed every three months, as a minimum, and amended as necessary to ensure that it accurately reflects the progress of the project / current waste contractors in use.

6.14 Burning of Waste

Under no circumstances can any waste be burned on site.

7. Waste minimisation

7.1 Reducing Waste

Materials must be managed on site to reduce waste. This may include (where appropriate):

- Cut and fill design balanced to reduce off-site disposal / import of virgin material
- Reusing site-won inert materials for fill purposes etc.





7. Waste minimisation

7.1 Reducing waste

- Value engineering exercises that drive leaner design
- Site-won demolition material used for construction purposes
- Site-won demolition material used for construction purposes
- · Contaminated soils to be remediated and reused (where possible)
- Standardisation of building dimensions to reduce off-cuts of plasterboard, tiles etc.
- · Off-site manufacture of building elements resulting in less waste on site e.g timber frame
- Salvage and reuse of existing building elements as opposed to purchasing new materials
- · Floor levels adjusted to reduce off-site disposal of excavated material
- Use of building materials with a high recycled content
- Hard standing on site retained as materials storage area
- Soil stabilisation used to improve ground bearing capacity and reduce disposal of excavated material and replacement with virgin aggregates
- Just in time materials deliveries to reduce periods materials are stored on site to prevent damage
- Secure materials storage areas to prevent damage to materials

8. Monitoring

Site management monitors waste via daily site checks. The Group HS&E Department monitors compliance with these standards via regular site HS&E inspections.



9. Further Reading

Technical Guidance WM3 Classification of Waste v1.1 Quality protocol: aggregates from inert waste Recycled Aggregates from Inert Waste (in Scotland) HazWaste Online[™] Dispose of waste to landfill - GOV.UK (www.gov.uk) National Community Wood Recycling Project

Refer to:

EMS guidance – Road Sweepers EMS guidance – Topsoil Purchasing & Use EMS guidance – Concrete Washout EMS guidance – Waste Storage & Segregation EMS guidance – Mobile Plant & Crushing EMS guidance – Recycled Aggregate Purchasing & Use EMS guidance – Reusing Excavation Materials EMS guidance – Reusing Excavation Materials EMS guidance – Persistent Organic Pollutant (POPS) Chemicals EMS guidance – Incinerator Bottom Ash Aggregate (IBAA) (England) EMS guidance – Incinerator Bottom Ash Aggregate (IBAA) (Scotland) EMS guidance – Waste Duty of Care Checks EMS guidance – Environment Guide Getting Your Site Right EMS guidance – Customer Care Waste

