Recovery of Street Sweepings and Gully Emptyings

Guidance for waste authorities

This is guidance about recovery of street sweepings and gully emptyings. It has been produced for waste authorities in England to support accurate reporting for the Landfill Allowances and Trading Scheme (LATS).

Contents

Introduction

For LATS, waste authorities increasingly report that street sweepings and de-watered gully emptyings have been recovered and diverted from landfill. These are non-source segregated wastes and types of recovery being claimed include landfill restoration, compost, soil improver and use in aggregates industry.

Gully emptyings require dewatering, with liquid removed under a consent to discharge to sewer. The remaining solid residues have a relatively high water content and may contain heavy metals, other physical contaminants and high leachable organic content. It is disposal and recovery of the solid residue that is addressed in this guidance.

Street sweepings (also known as street cleansing materials) can be more mixed, drier materials including leaves, grit, litter, glass, oils, paper, plastics and so on. They may contain heavy metals, other contaminants and have high leachable organic content.

Currently all street sweepings and gully emptyings collected by waste authorities have the waste code[1] 20 03 03: street cleaning residues. This is a waste code for non hazardous waste although both waste types may have a hazardous nature. There are regulatory controls on both disposal and recovery of these wastes which are explained below. If recovery is being claimed, waste authorities must ensure they can confirm that legitimate recovery has occurred at a site permitted to recover the particular waste.

[1] 'Waste code' means the six digit code that classifies a waste in accordance with the List of Wastes (LoW) Regulations 2005. The LoW Regulations transpose the European Waste Catalogue (EWC) wastes into domestic legislation. Waste codes are also sometimes referred to as LoW codes or EWC codes.

For recycling and recovery generally (not just for street sweepings and gully emptyings), waste authorities' processes & procedures should enable them to confirm:

a) the outlets that are used and reported in Qu.19/Qu.19a of WasteDataFlow (WDF); and

b) that the outlets are permitted to recycle or recover the waste or hold an exemption for the activity; and

c) that the waste has actually been recycled or recovered.

Scope

This guidance covers, in the form of frequently asked questions (FAQs):

A: Storage and dewatering of street sweepings.

B: Disposal of street sweepings and de-watered gully emptyings.

C: Recovery of untreated street sweepings and de-watered gully emptyings - i.e. that have not undergone any physical or biological treatment to change their characteristics.

D: Recovery of treated street sweepings and de-watered gully emptyings - i.e. that have had physical and/or biological treatment to change their characteristics.

This guidance does not explain how to enter data for these wastes onto WDF. For details on question entry to WDF for LATS see 'GN19: How to Report Street Sweepings' which is on the WDF website.

This guidance covers street sweepings and gully emptyings collected by waste authorities or their contractors as part of regular waste collection activities. This guidance does not cover containment, treatment and disposal of gully wastes arising from accidents, incidents and spillages on highways.

Links to documents referred to in this guidance can be found on Page 9.

A Storage and dewatering of Street Sweepings

Street sweepings may be stored temporarily, but not treated, under a ‘non -Waste Framework Directive’ exemption. Storage and dewatering of street sweepings should not take place on a roadside, lay-by or field due to the risk to ground and surface water. The waste should be stored and dewatered on an impermeable surface with a sealed drainage system.

Treatment of street sweepings or gully emptyings requires an environmental permit. However, **for street sweepings only,** we will not pursue a permit for dewatering which takes place during temporary storage provided that certain conditions are met. The requirements are set out in our regulatory position statement *The Dewatering of Street Sweepings*. Note that other forms of treatment, such as screening or washing, still require an environment permit.

Our current position is that dewatering alone does not alter the waste code for these wastes as it does not change the characteristics of the waste. We may review this in the future.

Dewatering of gully emptyings requires a permit and is not covered by the regulatory position statement on the dewatering of street sweepings. Gully emptyings are often liquid at the point of collection and cannot be directly landfilled. Due

to their potentially hazardous nature it is also difficult to put in place a standard procedure for handling, treatment and disposal of this waste.

B Disposal of Street Sweepings and Gully Emptyings

To dispose of (not recover) street sweepings and solid residues from dewatered gully emptyings, the wastes must be sent to a suitable facility which is permitted to accept this waste type. FAQs B1 to B5 below refer to street sweepings and de-watered gully emptyings that remain as waste code 20 03 03 and whose characteristics have not been changed through waste treatment. FAQ B6 refers to treated street sweepings and de-watered gully emptyings whose characteristics have been changed through physical or biological waste treatment and which are now classified under a Chapter 19 waste code.

B1 Can street sweepings and gully emptyings be disposed of at a non-hazardous landfill?

Yes, this is the most common disposal route for this waste. The landfill must be permitted to accept these wastes which have waste code 20 03 03.

B2 Can street sweepings and gully emptyings be disposed of at an inert landfill?

No. The wastes are classified as non-hazardous but are not inert[2]. These wastes usually cannot be accepted at inert landfills. They could only be accepted at an inert landfill if the landfill was permitted to accept wastes under waste code 20 03 03, the wastes were subject to testing prior to disposal and testing confirmed that the waste meets the waste acceptance criteria for landfills for inert waste.

B3 Can street sweepings and gully emptyings be disposed of at an exempt facility?

No. The disposal of any waste under an exemption is only allowed at the place of production and there are no exemptions which include the waste code 20 03 03. This means that roadsweepings and gully emptyings cannot be disposed of at an exempt facility.

B4 Can street sweepings and gully emptyings be disposed of at an inert landfill or an exempt site if they are mixed with inert materials such as soils and stones?

No. Mixing with other wastes does not make the waste inert. Fines or grit & stones from street sweepings and gully emptying residues mixed with other wastes must not be recoded as inert material (e.g. waste codes 17 05 04 or 20 02 02) either for disposal or as restoration material. The mixed waste would need to be characterised and classified with an appropriate waste code from the List of Wastes.

B5 Can street sweepings and gully emptyings be disposed of at an incinerator?

Yes. The wastes may be sent for incineration if the facility is permitted to accept the wastes but due to their liquid content this is a less common disposal route for residues from dewatered gully waste.

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[2] 'Inert waste' means waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.

B6 Can treated street sweepings and gully emptyings be sent to inert landfill for disposal?

If treatment has changed the characteristics of the waste then it could be disposed of at an inert landfill provided the landfill can accept that Chapter 19 waste type under its permit and the waste producer has sampled the waste to ensure it meets waste acceptance criteria[3].

Basic characterisation will, in most cases, need to include testing to establish the waste's chemical composition. This will include composition analysis (to check that the waste is non-hazardous) and leaching analysis.

If the waste has been produced by blending wastes from a number of sites and/or the potential for contamination is not known then the resultant waste must be tested to demonstrate that it is inert prior to disposal. Blending to achieve dilution of contaminants is not a suitable option.

We expect mechanical waste treatment facilities sending fines from treated street sweepings and gully emptyings to inert landfill to have full basic characterisation details for the waste produced, including testing information.

We would expect inert landfills accepting treated street sweepings and gully emptyings fines to have reviewed the basic characterisation and have a sampling plan for ongoing compliance testing unless every batch of waste received from the treatment facility has already been subjected to full basic characterisation and testing. See existing guidance on our website for waste acceptance at landfills.

C Recovery of untreated street sweepings and gully emptyings

Untreated street sweepings and de-watered gully emptyings in this context means when the waste has not undergone any physical or biological treatment that results in a change in the waste characteristics. If the wastes have been treated, see Section D.

As previously stated, our current position is that dewatering alone does not alter the waste code for these wastes so they will retain the waste code 20 03 03.

C1 Can untreated street sweepings and gully emptyings be recovered?

No. To be recovered the wastes would need to go through an authorised treatment first, such as mechanical and/or biological treatment, which changes the characteristics of the waste. See Section D for details.

C2 Can untreated street sweepings and gully emptyings be classed as recovered at a landfill?

No, these wastes can only be classed as recovered at a landfill if:

- the wastes are used above the final capping layer (for restoration) **and**
- the wastes are suitable for that use (considering their chemical and physical properties and the design of the restoration layer) and the permit explicitly authorises these wastes to be used for restoration

[3] All waste accepted at permitted inert landfill sites (for disposal) must meet the Waste Acceptance Criteria (WAC) for inert landfill sites. 'Basic Characterisation' must be carried out for all waste accepted at landfill for disposal. This constitutes a full characterisation of the waste by gathering all the necessary information to ensure safe disposal of the waste in the long term. It is the responsibility of the waste producer to provide this information and therefore their responsibility to confirm that the waste is inert.

It is unlikely that these wastes would meet the requirements for restoration material to be used above the capping layer although this will depend on the individual landfill and the nature of the individual waste.

Use of street sweepings and dewatered gully emptyings at a landfill for daily cover, site roads or as a soft layer at the base of a new cell is not recovery and must be reported in WDF as disposal to landfill.

C3 Can untreated street sweepings and gully emptyings be composted or digested?

Untreated street sweepings and gully emptying residues are not regarded as acceptable wastes for composting or anaerobic digestion. They can contain non-biodegradable waste and contaminants which will not be treated by an aerobic or anaerobic process alone. The waste could be accepted into mechanical biological treatment facilities (MBT) that are permitted to treat 20 03 03 coded waste. MBT facilities may produce a compost like output (CLO) i.e. compost or digestate derived from non-source segregated biodegradable waste. See Section D.

Untreated street sweepings and gully emptying residues wastes are usually excluded from composting and anaerobic digestion permits. However, we are aware of compost facilities currently permitted to accept these wastes and we will work with operators to review permits for these facilities.

These wastes cannot be used to produce quality compost or digestate under the relevant Publicly Available Specification (PAS) or Quality Protocols[4]. Input materials to meet both PAS and the Quality Protocols must have been collected separately from non-biodegradable wastes and not mixed with potentially contaminating wastes. Each Quality Protocol has an Annex B which specifies the wastes that can be accepted to meet PAS and the Quality Protocol. Street sweepings and gully emptying residues, waste code 20 03 03, are excluded from the list of acceptable wastes.

These wastes are also not accepted under any exemptions for composting or anaerobic processes. Paragraph 12 exemptions under the Environmental Permitting (England and Wales) Regulations 2007 and the preceding regulations did not specifically exclude these wastes. However, these wastes were generally considered unsuitable for use under this exemption. This exemption has been replaced by the Environmental Permitting (England and Wales) Regulations 2010 and operators who were previously registered needed to apply for a permit by 30 April 2012. For details of changes to exemptions and transitional arrangements, see our website.

C4 Can dedicated street cleansing leaf collections be used to produce compost or digestate?

Some waste authorities operate dedicated leaf litter collections in autumn and early winter as part of street cleansing rounds. The waste will be mainly leaf litter, but may also contain contaminants such as plastics, paper, foil, grits and so on. This untreated waste has waste code 20 03 03. However, we have recently been running trials to assess whether seasonal leaf litter from street cleansings, particularly in rural areas, may be composted. We intend to revise our guidance prior to Autumn 2012 when we have more information from the trials.

[4] Compost that meets the PAS100 specification is considered to be quality compost but is still a waste. A producer needs to follow the Compost Quality Protocol and achieve PAS100 to produce a quality compost that is no longer a waste. Similarly, anaerobic digestate that meets the PAS110 specification is considered to be quality digestate but is still a waste. A producer needs to follow the Anaerobic Digestate Quality Protocol and achieve PAS110 to produce a quality digestate that is no longer a waste.

Waste collected from parks and gardens separately from street cleansing rounds would have waste code 20 02 01. This waste code is acceptable under exemptions and permits for composting (and is also reported separately from street cleansing wastes for LATS).

C5 Can untreated street sweepings and gully emptyings be recovered as stones, grit and fines?

No, if fines or grit & stones from street sweepings and gully emptying residues are mixed with other wastes, the mixed waste must not be recoded as inert material (e.g. waste codes 17 05 04 or 20 02 02) either for disposal or as restoration material.

C6 Can untreated street sweepings and gully emptyings be recovered as product and sold to non-waste facilities e.g. aggregates industry, road making, construction?

No. There is a Quality Protocol for the production of aggregates from inert wastes. However street sweepings and gully waste residues are not inert wastes. Appendix C to the Protocol identifies, by waste code, the wastes that can be accepted to meet the protocol requirements. Street sweepings and gully emptying residues, waste code 20 03 03, are excluded from this list.

D Recovery of treated street sweepings and de-watered gully emptyings that have had physical and/or biological treatment to change their characteristics.

Treated street sweepings and de-watered gully emptyings in this context means when the waste has undergone physical or biological treatment that changes its characteristics. These wastes will no longer be classified as waste code 20 03 03. Instead they would be coded under Chapter 19 – wastes from waste treatment facilities. The Chapter 19 codes that apply following treatment will depend on the treatment type but are limited. The subsequent recovery of these wastes following treatment is also limited.

Street sweepings and de-watered gully emptyings can be treated by mechanical and/or biological treatment processes to recover various fractions including organic fines, grit and stones, sand and other fines. These would then be classed as an appropriate Chapter 19 waste.

The waste must be treated under an appropriate permit, such as at a facility that can accept waste code 20 03 03 for treatment e.g. under a standard rules permit or under a bespoke permit for a mechanical recovery facility or an MBT plant. The resultant output from these treatment processes will be a Chapter 19 waste and restricted to application under permitted or exempt sites that can accept waste classified under the relevant Chapter 19 waste code.

D1 Can treated street sweepings and gully emptyings be used to produce compost or digestate that meets the relevant PAS or Quality Protocol?

No. This is because street sweepings and gully emptyings are not recognised source segregated wastes.

The input materials to both PAS and the Quality Protocols[5] must have been collected separately from non-biodegradable wastes and not mixed with potentially contaminating

[5] See footnote 4.

wastes. Annex B to the Quality Protocols specifies the wastes that can be accepted to meet PAS and the Quality Protocols.

D2 If treated street sweepings and gully emptying residues are mixed with other biodegradable waste can they be used to produce compost or digestate that meets the relevant PAS or Quality Protocol?

No. Street sweepings and gully emptying are not source-segregated materials. To produce compost or digestate that meets the relevant PAS or Quality Protocol the input materials must not have been mixed with potentially contaminating wastes. These wastes may contain heavy metals and other contaminants and cannot be used to produce quality compost or digestate. If street sweepings were mechanically treated and then mixed with biodegradable waste they would still not be suitable. Waste mixed with PAS or Quality Protocol certified material will not be suitable for use for horticulture or agricultural land spreading.

D3 Can treated street sweepings and gully emptyings, following biological treatment, ever be composted?

Yes, following initial treatment the organic fraction may be able to be composted but only if the compost site is permitted to accept this output waste from the first treatment process, which will have a Chapter 19 waste code. The output from composting remains waste and must be used appropriately as waste. It is classified as CLO and will have restricted end use. As described earlier, treated street sweepings and gully emptyings cannot be used to make quality compost certified to PAS 100 or the Compost Quality Protocol. The compost site must demonstrate that these wastes are kept separate from other composts.

Alternatively, an MBT plant might be permitted to accept waste code 20 03 03 for treatment (i.e. untreated street sweepings and gully emptyings) and the process may directly produce CLO from the organic fraction without the waste having to go for further biological treatment.

CLO always remains waste and may be suitable to be spread to non-agricultural land for reclamation under an environmental permit if the receiving site is permitted to accept the waste type produced. CLO cannot be spread to agricultural land or used to reclaim land intended for agricultural use. It cannot be used on exempt sites or spread under an exemption.

We will keep this guidance under review and update it as necessary.

See FAQ C2 for the basic requirements for use of waste in recovery at a landfill.

For more information on complying with permits for spreading waste to land operations, see technical guidance (EPR 8.01) on our website.

D4 Can any treated street sweepings and gully emptyings now classified as Chapter 19 waste codes be sent to exempt sites?

Yes, but only the non organic fraction and only in very limited circumstances. The non-organic fractions recovered by mechanical separation processes would need to fall within specific Chapter 19 codes to which restricted definitions have been applied.

Possible recovery of the mechanically separated fraction under an exemption includes further treatment to produce an aggregate or soil for subsequent on site use, or use (but not treatment) of the treated wastes in short term construction projects. However, it is unlikely that the recovered fractions of street sweepings and gully residues from mechanical separation processes would be recovered at exempt sites in these ways or be permitted to be spread to land as a soil substitute.

No street sweepings or gully emptyings, either treated or untreated, are permitted under exemptions for composting or anaerobic processes.

For details of exemptions please see our website.

D5 Can fines from treated street sweepings and gully emptyings be used for reclamation, restoration or improvement of land?

Yes, if the waste has undergone mechanical treatment that changes its characteristics to a Chapter 19 coded waste, then it may be suitable to be accepted under standard rules or bespoke permits for use in reclamation, restoration or improvement of land.

See FAQ C2 for the basic requirements for use of waste in recovery at a landfill.

For further guidance for complying with permits for spreading waste to land see technical guidance (EPR 8.01) on our website.

D6 Can treated street sweepings and gully emptyings be recovered as soil substitutes or aggregate?

Yes, if the waste has undergone mechanical treatment that changes its characteristics to a Chapter 19 coded waste type that can be accepted under standard or bespoke permits, then it may be possible for it be recovered for use as soil substitute or aggregate.

See FAQ C2 for the basic requirements for use of waste in recovery at a landfill.

D7 Can treated street sweepings and gully emptyings be recycled as product and sold to non-waste facilities e.g. aggregates industry, road making, construction?

Not usually. The treated waste would not be classed under one of the waste codes identified in the Quality Protocol for the production of aggregates from inert wastes. Appendix C to the protocol identifies, by waste code, the wastes that can be accepted to meet the protocol requirements. The only Chapter 19 waste that can be accepted is glass.

However, if a waste operator submits an individual case for consideration of the output as end of waste, this would be reviewed. We are prepared to consider end of waste submissions from industry in order to give our view on whether a particular material/object has ceased to be waste. The submission would need to demonstrate a distinct and marketable substance used in the same way as a virgin equivalent and with no worse environmental effects. It is possible that on a case by case basis and with our agreement the material could be recycled as product.

Further information

If you need further information about reporting recovery and disposal of street sweepings and gully waste for LATS, please contact the LATS team.

Email: LATS@environment-agency.gov.uk

Telephone: 03708 506 506

Links to other documents

Environment Agency website

Quality Protocol: compost
http://www.environment-agency.gov.uk/static/documents/Business/Compost_Quality_Protocol_GEHO0610BSVC-E-E.pdf

Quality Protocol: anaerobic digestate
http://www.environment-agency.gov.uk/static/documents/Business/AD_Quality_Protocol_GEHO0610BSVD-E-E.pdf

Standard permits for waste operations
http://www.environment-agency.gov.uk/business/topics/permitting/118404.aspx

Storage and dewatering of street sweepings
http://www.environment-agency.gov.uk/static/documents/Business/MWRP_RPS_065_Dewatering_of_street_sweepings_final_08-07-10.pdf

Technical Guidance Note No EPR 8.01 Additional guidance for spreading waste to land operations
http://www.environment-agency.gov.uk/static/documents/Business/Landspreading_guidance_links.pdf

Treatment of Waste (exemptions)
http://www.environment-agency.gov.uk/business/topics/permitting/115578.aspx

Use of Waste (exemptions)
http://www.environment-agency.gov.uk/business/topics/permitting/115597.aspx

Waste Acceptance at Landfills (WAC, Basic Characterisation & testing requirements)
http://publications.environment-agency.gov.uk/PDF/GEHO1110BTEW-E-E.pdf

Waste exemptions and transitional arrangements
http://www.environment-agency.gov.uk/business/topics/permitting/32322.aspx

WasteDataFlow website

GN19: How to Report Street Sweepings
http://www.wastedataflow.org/htm/datasets.aspx#Specific

WRAP Website

BSI PAS 100:2005
http://www.wrap.org.uk/recycling_industry/information_by_material/organics/bsi_pas_100_1.html

The Quality Protocol for the production of aggregates from inert waste
http://www.wrap.org.uk/downloads/0083_Quality_Protocol_A4.c0044370.87.pdf