

**2021 WASTE DATA QUALITY REPORT**

**WASTE INCINERATED IN SCOTLAND**

**27th September 2022**

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# Introduction

This report describes the methodologies to produce summary waste incinerated in Scotland data for the 2021 calendar year. The report should be used alongside the 2021 Waste incinerated in Scotland official statistics and associated data tables

The 2021 data are presented as follows:

* The Waste incinerated in Scotland and associated data tables are presented in a summary and commentary document. This narrative describes the major trends and provides an interpretation of the data. They are located at [www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/waste-data-for-scotland/](http://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/waste-data-for-scotland/).
* Scotland’s Environment Waste Discover Data tool presents the waste from all sources (WFAS) in an interactive and visual format and is found on Scotland’s Environment web at [www.environment.scotland.gov.uk/get-interactive/data/waste-from-all-sources/](http://www.environment.scotland.gov.uk/get-interactive/data/waste-from-all-sources/). This tool covers the total waste managed, whether it be waste from households, waste from construction and demolition, or waste from commerce and industry. This tool includes the incineration dataset, and includes waste generated and waste management methods including waste recycled, incinerated, composted as well as waste incinerated.
* It should be noted that to provide consistency across the datasets for the WFAS Discover tool, additional years of waste generation and management data, including incineration data, are updated at the same time. The statistical release and excel landfill data tables are released about six months before the annual update of the WFAS Discover tool. This is because the incineration data comes primarily from one discrete dataset and can be prepared and published earlier.

Data sources referred to at various parts of the document are listed below. The agency that carries out the analysis of the dataset is provided in brackets.

* Scottish licensed/permitted site returns (SEPA)

Appendix 1 provides a fuller description of the dataset(s) listed above, including any links to return forms and guidance.

Appendix 2 provides a brief summary of the coding of waste using European Waste Catalogue (EWC) and European Waste Catalogue for Statistics (EWC-STAT), which are used throughout this document.

Appendix 3 provides a glossary of terms.

Appendix 4 provides a list of acronyms.

## Revisions Policy

Revisions could occur for various reasons, including when data from third parties is unavailable or provisional at the time of publishing or if there are subsequent methodological improvements or refinements.

The figures are accurate at the time of publication. However the data may be updated if further revisions are necessary. Normally these revisions will be published concurrent with the next release.

Where there have been changes in methodology for the waste data tables, the complete dataset is to be revised for all years to ensure that comparisons between years are valid.

**Contacting Us**

If you have any queries on the contents of this document or the accompanying waste data tables, please contact the Dataflows Unit by email, phone or in writing.

By Email

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By Phone

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# Waste Incinerated in Scotland

## Introduction

This section describes how we report waste incinerated in Scotland.

A list of Scottish incinerators is maintained and checked with SEPA regulatory staff annually, prior to starting the analysis. For co-incinerators, we exclude any non-waste fuels from our analysis. There were 17 operational sites used in the final 2021 analysis. These sites vary significantly in size, with 4 sites having incinerated under 1,000 tonnes of waste in 2021 and 5 sites incinerated over 100,000 tonnes in 2021.

Waste data are supplied as EWC codes, which are aggregated into final reporting categories. Waste type descriptions are separated into non-hazardous/hazardous using European Waste Catalogue (EWC) codes.

The origin of the waste is reported in Table B (Waste inputs to site) of the licensed/permitted site return. For any sites that complete Table C4 of the licensed/permitted site return, to report on wastes incinerated after being treated on-site, the waste origin is not reported. It was assumed that wastes reported in table C4 had an origin of Scotland. In 2021 there were two sites that reported waste incinerated in table C4, compared to 2020 where there was one site that reported waste incinerated in table C4.

## Recovery by incineration and co-incineration within Scotland

In the waste data tables, “Recovered by incineration” means that waste has been incinerated at a facility that has been accredited as meeting the energy efficiency standard of a recovery facility (R1 facility) as defined in the Waste Framework Directive. “Recovered by co-incineration” means waste incinerated at a facility that normally generates energy from incineration of non-waste sources such as coal or gas. This may include, for example, a cement kiln that normally uses natural gas as an energy source. In 2021 there was one facility that was accredited by SEPA to the R1 standard, the first time that an incinerator in Scotland has been accredited to this standard. For this incinerator, as the incineration process has not changed in its operating history, all historical data has been revised to change from the Disposed by incineration category to the Recovered by incineration category.

## Disposal by incineration in Scotland

In the waste data tables, “Disposed by incineration” means waste incinerated at an incineration facility that is not accredited as meeting the energy efficiency standard of a recovery facility (D10 facility). Four municipal waste incinerators in Scotland fall into this category. It is thought that all four of these incinerators would likely meet the R1 standard, if they applied for accreditation.

# Further information

## Contacting Us

If you have any queries on the contents of this document or the accompanying waste data tables, please contact the Dataflows Unit by email, phone or in writing.

By Email

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# Appendix 1

## Datasets used in the 2021 methodology

**Scottish licensed/permitted site returns**

Approximately 940 individual licences submit quarterly returns to SEPA via email or post, of which 17 sites were operational incineration sites. A copy of the return form can be downloaded from the SEPA website[[1]](#footnote-1). The returns dataset is managed and checked by SEPA. The return form consists of Table B (Waste inputs to site), Table C (Waste treated on site), Table C4 (Waste landfilled or incinerated after treatment on-site – landfill or incineration sites only) and Table D (Waste sent off site).

SEPA carried out quality assurance of the dataset that included comparing individual site data with previous quarters/years, consistency of EWC codes with the description of waste provided by the operator and missing data. Submissions were collected, uploaded and checked by SEPA staff with the assistance of various automation and visual tools throughout the process.

# Appendix 2

## European Waste Catalogue

Throughout this document reference is made to both the European Waste Catalogue (EWC) list of wastes and European Waste Catalogue for Statistics (EWC-STAT). A brief explanation of each is given below, along with links to further information.

## European Waste Catalogue List of Waste (EWC 2000)

The EWC 2000 is a harmonised, non-exhaustive list of waste types established by the European Commission (2000/532/EC). The list is used to categorise waste based on a combination of what they are, and the process or activity that produces them.

The full EWC 2000 list and further information is available here:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2000D0532:20020101:EN:PDF>

The list is divided into 20 chapters, most of which are industry-based, although some are based on materials and processes. Each chapter is represented by a two-digit code between 01 and 20 and comprises one or more subchapters. Individual waste types are detailed in the subchapters and are assigned a six-digit code that comprises two digits for the chapter, two for the subchapter and two specific to the waste type.

Hazardous wastes are signified by entries where the EWC code is marked by an asterisk (\*).

The use of EWC codes to describe waste on waste transfer notes in Scotland has been statutory since April 2004. The majority of statutory waste data returns received by SEPA, including licensed/permitted site returns, exempt activity returns and special waste consignment notes require waste to be classified according to the EWC 2000.

## European Waste Catalogue for Statistics (EWC-STAT)

The EWC-Stat is a (mainly) substance-oriented statistical classification of waste established by the European Commission (2004/574/EC). The EWC-STAT contains 13 categories, each represented by a two-digit code between 01 and 13. These are subdivided into individual waste types.

A table of equivalence allows wastes coded in the EWC 2002 to be converted into the EWC-Stat. However, because of the way the coding system operates, it is not possible to do the reverse conversion. The table of equivalence and further information is available here:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:253:0002:0041:EN:PDF>

# Appendix 3

## Glossary

|  |  |
| --- | --- |
| EWC Code | European Waste Catalogue code |
| Hazardous Waste | Waste with hazardous properties which may render it harmful to human health or the environment. Hazardous waste is also called Special Waste in Scotland, as defined in the Special Waste Regulations 1996 (and amendments). |
| WFAS | Waste from all sources. This includes commercial and industrial sources, construction and demolition sources as well as from household sources. |
| Waste incinerated by co-incineration | Wastes used primarily as a fuel and incinerated at an incineration facility in which the main purpose is the generation of energy or production of material products (e.g. cement), and which uses waste as an additional fuel. |
| Waste incinerated by disposal | Wastes incinerated at an incineration facility where the energy efficiency has not been demonstrated to meet the R1 criteria specified in the EU Waste Framework Directive (Directive 2008/98/EC). |
| Waste incinerated by recovery | Wastes used principally as a fuel to generate energy and incinerated at an incineration facility where the energy efficiency has been demonstrated to meet the R1 energy efficiency criteria specified in the EU Waste Framework Directive (Directive 2008/98/EC). |
| Waste recovered by incineration | Wastes incinerated by co-incineration and waste incinerated by recovery. |
| Waste incinerated | WFAS that is incinerated in Scotland including waste incineration by disposal and waste incineration by recovery. |

# Appendix 4

## Acronyms

|  |  |
| --- | --- |
| C&D | Construction and Demolition |
| C&I | Commercial and Industrial |
| EWC | European Waste Catalogue |
| EWC-STAT | European Waste Catalogue for Statistics |
| SEPA | Scottish Environment Protection Agency |
| WFAS | Waste From All Sources |

# Version Control

|  |  |  |
| --- | --- | --- |
| Version | Description | Date |
| 1 | Initial published report | 27/9/2022 |

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<http://contactscotland-bsl.org/>

[www.sepa.org.uk](http://www.sepa.org.uk)

1. <http://www.sepa.org.uk/environment/waste/waste-data/guidance-and-forms-for-operators/licensed-and-permitted-sites/> [↑](#footnote-ref-1)