Guidance on when a plant is a Co-Incineration Plant
Guidance on when a plant is a Co-Incineration Plant – v 3

Purpose
To provide guidance for Natural Resources Wales staff to use in reaching a decision on when a plant, within the scope of the Waste Incineration Directive (WID), should be classified as a co-incineration plant.

Using this document
The WID applies to incineration plants and co-incineration plants. Co-incineration plants constitute a particular form of incineration plant and this document provides a set of criteria to help decide when a plant should be considered a co-incineration plant (i.e. a plant having as its primary purpose the production of material products or generation of energy).

The table poses typical scenarios which should be assessed sequentially as shown in the flow chart attached. For each scenario select which of the two descriptions most aptly describes the plant under consideration. Where a conclusion can be drawn from a particular scenario, it is not necessary to consider the succeeding scenarios.

Assessment of the primary purpose of a plant is made on the basis of the facts existing at the time at which the assessment is carried out. The primary purpose of the plant can therefore be re-assessed at a later date should the facts change.

Should you be unclear on any element of the assessment, or should the scenarios posed below not produce a clear answer, contact a technical advisor.

1. Does the plant produce Material Outputs?
   No Or Yes
   The plant only produces energy (electricity and / or heat).
   Proceed to Question 2
   The plant produces a fuel product from waste or uses the fuel energy from the waste directly in making a product. (e.g. Cement plants).
   The Plant is a Co-Incineration Plant – end of assessment.

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1 The gas/liquid/solid produced by a gasification or pyrolysis plant is only considered a product where it has passed an end of waste test and is no longer considered a waste.
2. **Is energy recovered from the waste burning plant?**

<table>
<thead>
<tr>
<th>No</th>
<th>Or</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>There is a net export of energy (as electricity or heat) to other plant in the installation or users outside the installation.</td>
</tr>
</tbody>
</table>

The Plant is an Incineration Plant – Proceed to Question 3

end of assessment.

3. **Is the waste the principal source of fuel?**

<table>
<thead>
<tr>
<th>Yes</th>
<th>Or</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste is burnt as the principal source</td>
<td>The waste is a supplementary fuel in a plant of fuel. (i.e. the plant operates on non-designed to burn fuels which are not waste. waste fuels only occasionally, or not at all)</td>
<td></td>
</tr>
</tbody>
</table>

Proceed to Question 4

The Plant is a Co-Incineration Plant – Proceed to Question 6

end of assessment.

4. **Is the waste being burnt mixed waste comprising different materials?**

<table>
<thead>
<tr>
<th>Yes</th>
<th>Or</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>The waste being burnt comprises</td>
<td>The waste has consistent characteristics different materials (e.g. mixed and can be compared to a virgin fuel (e.g. municipal waste, RDF). waste wood)</td>
<td></td>
</tr>
</tbody>
</table>

Proceed to Question 5

Proceed to Question 6

5. **Has the waste been treated to improve its fuel quality?**

<table>
<thead>
<tr>
<th>No</th>
<th>Or</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>The waste being burnt does not undergo any significant pre-treatment to a relevant standard to enhance its performance as a fuel.</td>
<td>All the waste has been treated (on or off site) to a relevant standard to enhance its performance as a fuel (e.g. SRF has CEN TS 15359)</td>
<td></td>
</tr>
</tbody>
</table>

The Plant is an Incineration Plant – Proceed to Question 7

end of assessment.

6. **What level of Energy Recovery is achieved?**
<table>
<thead>
<tr>
<th>Energy recovery is below 0.8 MWh\textsubscript{e}/tonne waste \quad Or \quad Energy recovery is at least 0.8 MWh\textsubscript{e}/tonne\textsuperscript{2} waste or the plant achieves good quality CHP status\textsuperscript{3}.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Plant is an Incineration Plant – end of assessment of assessment.</td>
</tr>
</tbody>
</table>

7. **How is the plant operation managed?**

The plant operation is not linked to a \quad Or \quad The plant operation is linked to an energy-consuming facility (e.g. industrial site, and is normally limited only by the business park) in terms of capacity and availability of waste feed (e.g. The operability. When the consuming facility is principal output is electricity which is not operating (other than short-duration mainly supplied to the national grid). maintenance), the producing plant stops operating.

| The Plant is an Incineration Plant – end of assessment. | The Plant is a Co-Incineration Plant – end of assessment. |

\textsuperscript{2} This figure has been derived from the BREF (BAT point 66). It is only relevant to this assessment and does not define an acceptable level of energy recovery. Energy recovery and energy efficiency are to be assessed in detail during permit determination.

\textsuperscript{3} See 'The CHPQA Standard' for details about good quality CHP status
The output of the plant is a fuel product produced from the waste (the end of waste test is used for determining when the fuel produced is a product).

a supplementary fuel in a plant designed to burn non-waste fuels and recover energy

Energy, and the energy is generated by a plant that uses waste as a principal source of fuel, where energy is recovered and there is a material product that uses the fuel energy from the waste directly in making that product. (e.g. Cement plants)

a principal source of fuel, where energy is recovered and there is a net export of energy

Blue box = Incineration plant

Blue box = Incineration plant

No net export of energy

Energy, and the energy is generated by a plant that uses waste as a fuel product produced from the waste (the end of waste test is used for determining when the fuel produced is a product).

Waste with consistent characteristics which is comparable to a virgin fuel (e.g. waste wood), where the plant recovers

At least 0.8 MWh/t or the plant achieves good quality CHP status

Mixed waste comprising different materials, that may have undergone some pre-treatment

Mixed waste comprising different materials, that may have undergone some pre-treatment

A net export of energy, and the feedstock is

Less than 0.8 MWh/t

not linked to a particular energy-consuming facility and normally limited only by the availability of waste feed

Less than 0.8 MWh/t

is linked to an energy-consuming facility (e.g. industrial site, business park) in terms of capacity and operability.

Less than 0.8 MWh/t

Waste which has been treated (on or off site) to a relevant standard to enhance its performance as a fuel (e.g. SRF), and the operation of the plant is

Waste which has been treated (on or off site) to a relevant standard to enhance its performance as a fuel (e.g. SRF), and the operation of the plant is

Less than 0.8 MWh/t

Waste with consistent characteristics which is comparable to a virgin fuel (e.g. waste wood), where the plant recovers

Mixed waste comprising different materials, that may have undergone some pre-treatment

Less than 0.8 MWh/t

Less than 0.8 MWh/t

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