

January 20, 2020

Last month the European Commission published an updated Best Available Techniques (BAT) Reference Document and BAT Conclusions document for the food, drink and milk industry. This has implications for the review of permits held by operators of installations across Europe in terms of planning and timing in relation to compliance.

There are 37 BATs listed in the updated BREF, with 15 of these being generally applicable and the remaining 22 being specific to sectors. Some of these were covered in the initial 2006 BREF and are essentially similar to what is already expected of sites operating under environmental permits, so many installations will already be generally compliant. However, in relation to some techniques, the level of detail has been expanded and so the permitting requirements going forward may also reflect this.

## Background – IED

The Industrial Emissions Directive (IED) 2010 is a piece of EU legislation that aims to reduce or prevent emissions to air, land and water from industrial installations. Its powers include:

- requiring installations to operate under the terms of a permit;
- protecting the environment to a high level;
- providing for a system of Best Available Techniques (BAT) reference documents to be drawn up, reviewed and updated, to ensure the most effective methods of achieving high environmental protection are carried out by installations subject to the IED. BAT reference documents are known as BREFs;
- updating versions of the BREFs, including BAT conclusion documents (BATc) which contain BAT-associated emission levels (BAT AELs).

Article 15 of the IED states that permitting authorities must set emission limits in accordance with the BAT conclusions. These can be relaxed in certain circumstances. The Environmental Permitting Regulations 2016 implement this requirement in England and Wales.

BREFs have been drawn up for a number of industries, ranging from iron and steel production, glass manufacture, intensive rearing of poultry and pigs, and food, drink and milk industries.

## Food, drink and milk industry

The initial BREF for the food, drink and milk industry (FDM Sector) was adopted in August 2006. The European Commission operates a programme whereby updates to BREFs across sectors covered by the IED are made on a

rolling basis. The FDM Sector BREF has been under review for the last five years.

In December 2019, the European IPPC Bureau published a revised BREF and BATc. This has implications for the review of permits held by operators of installations in terms of planning and timing in relation to compliance. It is expected the BREF will be applied in the UK, regardless of Brexit.

## What is in the updated BREF?

The updated BREF (which runs to nearly 800 pages) contains an analysis of general processes and techniques currently in the FDM Sector, a review of techniques to consider in the determination of BAT across the FDM Sector and some emerging techniques that could be used in the sector to help pollution prevention and control. These include the use of UV/ozone in absorption for odour abatement (also noted in the 2006 BREF), electrochemical activation and microbial fuel cell-based treatment systems.

The conclusions are set out at Chapter 17 and concern the following activities:

1. treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed from:
  - a. only animal raw materials (other than, exclusively, milk) with a finished product production capacity greater than 75 tonnes per day;
  - b. only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day or 600 tonnes per day where the installation operates for a period of no more than 90 consecutive days in any year;
  - c. animal and vegetable raw materials, both in combined and separate products (subject to a certain capacity per day figure);
2. treatment and processing of milk only, the quantity of milk received being greater than 200 tonnes per day (average value on an annual basis);
3. independently operated treatment of waste water not covered by Directive 91/271/EEC provided that the main pollutant load originates from activities specified in (1) or (2) above;
4. the combined treatment of waste water from different origins provided that the main pollutant load originates from the activities specified in (1) or (2) above and that the waste water treatment is not covered by Directive 91/271/EEC (concerning urban waste water treatment);
5. the production of ethanol taking place on an installation covered by the activity description in (1)(b) above or as a directly associated activity to such an installation.

There are 37 BATs listed in the updated BREF, with 15 of these being generally applicable and the remaining 22 being specific to sectors (for example, dairies, breweries, meat processing etc.).

BAT techniques are descriptive only, and are not exhaustive. Other techniques may need to be agreed with a regulator.

Some of these were covered in the 2006 BREF and are essentially similar to what is already expected of sites operating under environmental permits, so many installations should already be generally compliant. However, in relation to some techniques, the level of detail has been expanded and so the permitting requirements may also reflect this. The table below sets out a summary of the 15 generally applicable BATs:

BAT Number	BAT	Comment
1	<b>Environmental management systems</b> Installations must adhere to 18 general points, including a:	Predominantly centred around ISO 14001, so should a certified ISO management system be in place at an installation, it is likely that it will

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	<ul style="list-style-type: none"> <li>• noise management plan</li> <li>• odour management plan</li> <li>• inventory of water, energy and raw materials consumption as well as of waste water and waste gas streams</li> <li>• energy efficiency plan</li> </ul>	meet these points.
2	<p><b>Inventory</b> Establish, maintain and review (including when a significant change occurs) any inventory of water, energy and raw materials and waste streams. This should cover flow sheets showing the origin of emissions, information about water consumption and usage, the quantity and characteristics of waste streams etc., and information regarding energy consumption and usage.</p>	Compliance can be demonstrated through compliance with the Waste and Resources Action Programme, otherwise operators are expected to maintain an inventory with the required information.
3-4	<p><b>Monitoring emissions to water</b> Includes flow, pH and temperature of waste water at key locations within the installation or into effluent treatment plants. BAT 4 sets monitoring periods and what is to be applied when monitoring emissions to water from the site.</p>	
5	<p><b>Monitoring emissions to air</b> Sector-specific emission limits set out later in BAT conclusions. Expectation is that monitoring should generally be carried out once a year, but varies depending on substance.</p>	
6	<p><b>Energy efficiency</b> BAT includes the use of an energy efficiency plan and use of common techniques.</p>	<p>Common techniques include cogeneration, use of solar energy, energy-efficient motors etc. These are then linked to sector-specific techniques. Covers gas as well as electricity.</p>
7	<p><b>Water consumption and waste water discharge</b> Descriptive techniques for managing the above. Whilst these should already be in use, their applicability should be reviewed at installations.</p>	Specific discharge levels apply across different sectors. High level of variability between different sectors.
8-9	<p><b>Harmful substances</b> Aim for a reduction in the use of harmful substances (for example, those used in cleaning and disinfection). Use of refrigerants with no ozone depletion and lower global warming potential. Suitable alternatives to ozone depleting substances.</p>	

BAT Number	BAT	Comment
10	<b>Resource efficiency</b> Waste recovery and re-use. Encourage resource efficiency by using one or more techniques, including anaerobic digestion, re-use of pasteurising residues, phosphorus recovery etc. Some specific techniques for dairy and ethanol production.	
11-12	<b>Emissions to water</b> Daily averages are set out for chemical oxygen demands, total suspended solids, total nitrogen and total phosphorus levels.	Some plants may not be designed properly to deal with the total nitrogen limits, leading to a re-design of existing infrastructure or construction of new treatment facilities being required.
13-14	<b>Noise</b> To prevent or reduce noise emissions using BATs that include operational measures, low-noise equipment, noise abatement, noise management plans etc. Some of these techniques are generally applicable and others do not apply to existing plants.	Noise management plan required where noise has been identified as an issue.
15	<b>Odour</b> Requirement to set up, implement and regularly review odour management plans, applicable when odour nuisance has been recorded and substantiated.	

## Compliance steps within permit review process

1. Now: review BAT conclusions.
2. In next 12-24 months: submit summary of compliance with BAT conclusions. Identify areas of non-compliance and steps to comply. Consider steps to achieve compliance in next four years or request derogation from BAT AELs. Provide supporting documentation if requesting a derogation on a technical, local, environmental or geographical ground. Include suggested alternative approach that incorporates environmental consequences and time limits. If derogation accepted as part of the permit review process, will be incorporated into new permit.
3. Review ground condition baseline for site.
4. Assess water discharge impacts: direct and indirect.
5. Site to be compliant with BAT conclusions or agreed derogation in place (only for BAT AELs) by November 2023.

## Your Key Contacts



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