

# Definition of 'Best Available Techniques'

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**Friends  
of  
the Earth**

**European Directive on Industrial Emissions  
Gent 17<sup>th</sup> September 2010**



Put very simply .....

*Best Available Techniques means that the operator has to use the very best possible way to protect the environment that can be economically justified*



## IPPCD/IED definition of Best Available Techniques [1]

‘**best available techniques**’ means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent and where that is not practicable, to reduce emissions and the impact on the environment as a whole.

- (a) “**techniques**” includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned;
- (b) “**available**” techniques means those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator;
- (c) “**best**” means most effective in achieving a high general level of protection of the environment as a whole

# IPPCD/IED definition of Best Available Techniques [2]

- Integrated approach – air
  - land
  - water
- Guidance provided by the BREFs
- Facility for local derogations
- Public involvement
- Regular updating



EU



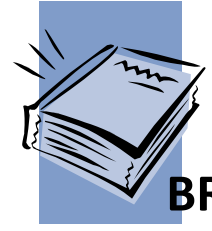
MS



Local level



IPPC/IE Directive



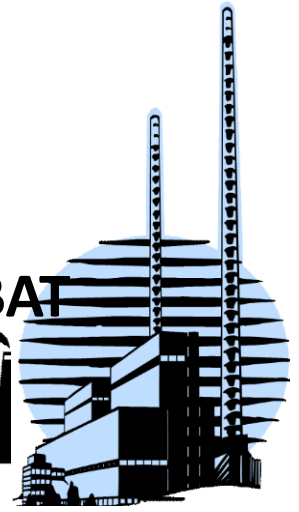
BREFs



National guidance



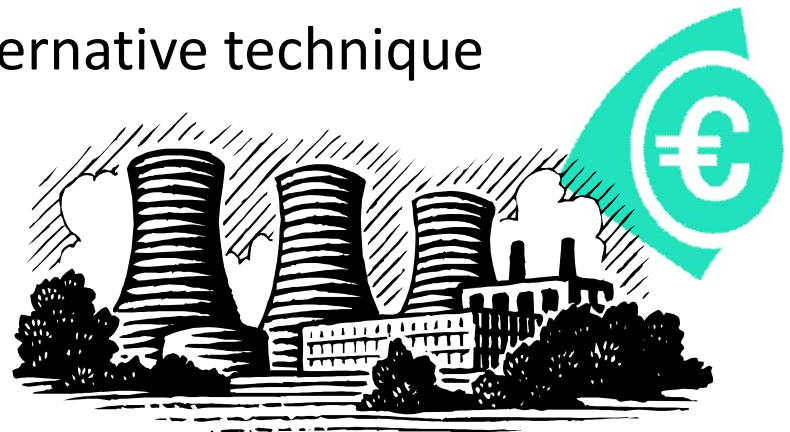
Local factors



# Practical definition of Best Available Techniques [1]

## A methodology

1. Scope and identify the alternative techniques under consideration
2. Compile an inventory of emissions and resource use for each option
3. Estimate environmental effects
4. Determine the technique that offers the highest level of protection for the environment as a whole
5. Determine costs for each alternative technique
6. Evaluate the alternatives



# Practical definition of Best Available Techniques [2]

- 1. Scope and identify the alternative techniques under consideration**
  - refer to the BREF(s)
  - relevant site-specific factors e.g. height above boiler
  - technique not covered by BREF
- 2. Compile an inventory of emissions and resource use for each option**
  - significant emissions/resource use
  - but: synergistic effects  
bioaccumulation
  - changes within an emissions type e.g PM10/PM 2.5
- 3. Estimate environmental effects**
  - may be weighted to reflect closeness to environmental benchmark



# Practical definition of Best Available Techniques [3]

## 4. Determine the technique that offers the highest level of protection for the environment as a whole

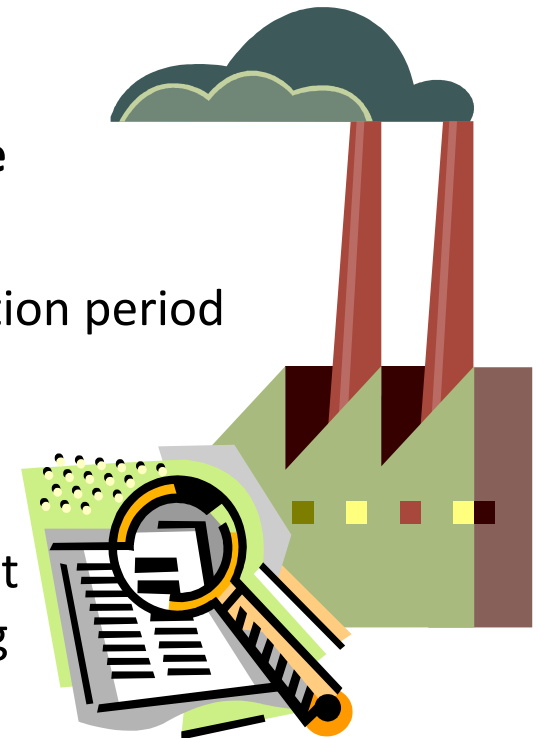
- equal weight to all media?
- short term vs long term impacts
- ozone/global warming potential
- noise and vibration, odour etc
- impact on resource use/waste

## 5. Determine the costs for each alternative technique

- what is included and on what basis?
- economic assumptions eg amortisation period

## 6. Evaluate the alternatives

- on what basis?  
e.g. Benchmark costs/kg of pollutant  
Point of more rapidly increasing costs





# Aberthaw Power Station, UK

- **Set to become one of the EU's largest point sources of NOX**
- **It should have fitted SCR:**
  - LCP BREF BAT standard
  - 15 years to amortise the debt
  - cost/tonne NOx abated accords with ECM BREF
- **But Aberthaw escaped SCR because:**
  - UK BAT assessment methodology
  - amortised debt over 10 years
  - benchmarked decision with a study that breached ECM BREF
- **FoE unable to take legal action:**
  - BREFs not legally binding
  - English courts don't like technical cases



# Does IED improve the practical application of BAT? [1]

[Art 14.3] *'BAT conclusions shall be **the** reference for setting the permit conditions'*

-- ECM BREF requires cost effectiveness (costs/kg of pollutant abated)  
not cost-benefit analysis (costs vs benefits)

[Art 15.4] allows for derogations from BREFs if BAT would lead to disproportionately higher **costs compared to the environmental benefits** due to local geographical, environmental and technical factors

-- could this reinstate cost-benefit analyses?

Critical role for [Art 15.4]

*'the Commission may, where necessary, assess and further clarify, through guidance, the criteria to be taken into account for [derogations]*



**How does the Commission know that it needs guidance criteria?**

# Does IED improve the practical application of BAT? [2]



**How does the Commission know what  
sort of guidance is needed?**

Critical interpretation of [Art 72.1]

*'MSs shall ensure that information is made available to the  
Commission ..... **in particular on the granting of exemptions in  
accordance with Article 15.4'***

-- just the fact of an exemption, or also the reasons for it?

[Art 73.1] A three yearly report assessing *'the need for Union action through  
the establishment or updating of Union-wide minimum requirements  
for emission limit values .....*'



**Proper basis for the practical application of BAT**

**For further information, please contact:**

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