Industrial Emissions Directive (IED) 2010/75/EU

Large Combustion Plants (LCP) BREF review

11th EC-Euracoal Coal Dialogue
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Air quality today in the EU
significant remaining challenges to resolve

- Health & Environment Impacts
  - 400,000 premature deaths each year
  - 30% EU citizens exposed to air pollutant levels above EU standards
  - 90% EU citizens exposed to air pollutant levels above WHO guidelines

- Socio-Economic Impacts
  - External costs: €300-900 billion
  - 436 million restricted activity days
  - Direct economic costs: €23 billion

Source: EEA
Commission's Clean Air Package

Revised NEC Directive and new MCP Directive

52% Health Impact Reductions (2030 vs. 2005)
200,000 avoided premature deaths/yr (ca. 60,000 more than BAU)

Significant Environmental Impact Reductions (2030 vs. 2005)
Eutrophication: 35% (NOx, NH3)
Acidification: 85% (SOx, NH3)
LCP emissions 2012 (E-PRTR)

Sulphur oxides (SO$_x$/SO$_2$)
- 72% (530 facilities)
  - 1.(c) Thermal power stations and other combustion installations
  - 1.(a) Mineral oil and gas refineries
  - 2.(a) Production of non-ferrous crude metals from ore, concentrates or secondary raw materials
  - 2.(b) Production of pig iron or steel including continuous casting
  - 4.(a) Industrial scale production of basic inorganic chemicals
  - 4.(b) Industrial scale production of basic inorganic chemicals
  - 3.(c) Production of cement clinker or lime in rotary kilns or other furnaces
  - 3.(e) Manufacture of glass, including glass fibre
  - 8.(b) Treatment and processing of animal and vegetable materials in food and drink production
  - Other

Nitrogen oxides (NO$_x$/NO$_2$)
- 62% (987 facilities)
  - 1.(c) Thermal power stations and other combustion installations
  - 3.(c) Production of cement clinker or lime in rotary kilns or other furnaces
  - 1.(a) Mineral oil and gas refineries
  - 2.(b) Production of pig iron or steel including continuous casting
  - 2.(e) Manufacture of glass, including glass fibre
  - 4.(a) Industrial scale production of basic organic chemicals
  - 3.(p) Underground mining and related operations
  - 6.(a) Production of pulp from timber or similar fibrous materials
  - 6.(b) Production of paper and board and other primary wood products
  - Other

Particulate matter (PM$_{10}$)
- 55% (197 facilities)
  - 1.(c) Thermal power stations and other combustion installations
  - 2.(b) Production of pig iron or steel including continuous casting
  - 3.(g) Manufacture of ceramic products including tiles, bricks, stoneware or porcelain
  - 6.(a) Production of pulp from timber or similar fibrous materials
  - 2.(a) Metal ore (including sulphide ore) roasting or sintering installations
  - 3.(c) Production of cement clinker or lime in rotary kilns or other furnaces
  - 4.(c) Industrial scale production of phosphorous, nitrogen or potassium based fertilizers
  - 5.(e) Manufacture of glass, including glass fibre
  - Other

Mercury and compounds (as Hg)
- 57% (185 facilities)
  - 1.(c) Thermal power stations and other combustion installations
  - 2.(b) Production of pig iron or steel including continuous casting
  - 3.(c) Production of cement clinker or lime in rotary kilns or other furnaces
  - 4.(a) Industrial scale production of basic inorganic chemicals
  - 4.(b) Industrial scale production of basic inorganic chemicals
  - 2.(a) Production of non-ferrous crude metals from ore, concentrates or secondary raw materials
  - 5.(a) Mineral oil and gas refineries
  - 5.(a) Incineration of non-hazardous waste included in Directive 2000/15/EC - waste incineration
  - 5.(a) Mineral oil and gas refineries
  - 5.(a) Disposal or recovery of hazardous waste
  - Other
Out of the 30 facilities estimated to cause the greatest aggregated damage costs, **26 are coal-fired power plants.**
Directive 2010/75/EU on industrial emissions (IED)

- **Prevention** of pollution and, if not feasible, **reduction**
- **Permit** is required for operating the installation
- **Permit** needs to contain conditions including emission limit values (ELVs) for all relevant pollutants, based on the use of the **best available techniques (BAT)**
- **Minimum ELVs** for some key pollutants for LCPs
  - replacing 2001 LCP Dir from 1/1/2016 (for existing plants)
  - transitional flexibilities allowing later compliance dates (TNP, limited lifetime derogation, district heating, SIS) during the period 2016-2023
Information exchange ("Sevilla process")

- Commission
  - Guidance
    - Cion Decision 2012/119/EU
- TWG kick-off meeting
- Member States
- Environmental NGOs
- Industry
- Draft 1
- Bulk of information (questionnaires)
- Comments

Final TWG meeting

Final draft

Total duration: 24 – 29 months
Review: 8 year cycle
LCP BREF review so far

• Kick-off in **2011**
• Technical Working Group (**270 experts**)
• Exhaustive **technical and economic data collection**
  • 580 plant level questionnaires + bulk info (reports, site visits)
• **Draft 1 (2013)** → 8500 comments
• **Intermediate meeting (2014)** to discuss key issues
• **Final meeting + Webinar (June/July 2015)**
  • all main issues discussed and conclusions reached
  • BAT and BAT-AELs based on analysis of data sets (2010 situation)
  • dissenting views need to be supported by valid rationale
LCP BREF review - Next steps

Final draft BREF

Submitted to the IED Article 13 Forum for its opinion: consensual vs non-consensual comments

Vote by IED Article 75 Committee (qualified majority)

In case of positive vote:
- adoption by Commission
- publication in OJEU
From BAT conclusions to permits

**BAT conclusions** are the reference for setting permit conditions (Art 14(3))

Permits shall contain **emission limit values** (ELVs) ensuring that, under normal operating conditions, emissions do not exceed **BAT associated emission levels (BAT-AELs)** (Art 15(3) a+b)

**Derogation** from meeting BAT-AELs is only possible in specific and justified cases: (Art 15(4))

- where assessment shows that costs of applying BAT-AELs are disproportionately higher than environmental benefits
- due to location / installation specific situation
- IED minimum ELVs cannot be exceeded
Implementation time line

• Within four years after publication in OJ
  • all permit conditions to be **reconsidered** and, if necessary, **updated** to bring them in line with the BAT conclusions
  • **compliance** to be achieved
  • where **more time** is needed, this needs to be justified on the basis of the criteria set out in **Article 15(4)**
Conclusions

- The BREFs are an effective means of describing state-of-the-art techniques to limit industrial pollution and their performance and a platform for documenting innovative techniques creating new market opportunities.

- The "Sevilla process" captures "real life" technical and economic information on BAT in an inclusive and transparent way, quality checked by stakeholders.

- The BAT conclusions are a cornerstone of the EU’s environmental policy on air/water/soil pollution, fully in sync with the broader EU objectives.
Further information

DG ENV industrial emissions website
http://ec.europa.eu/environment/air/pollutants/stationary/index.htm

European IPPC Bureau (BREFs)

Please contact us if you have any further questions:
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