



# Conference

**Next presentation at 10.00**

**The Industrial Emissions Directive  
The Future of Regulation from 2013**

**John Tipping, EA.**

# The Industrial Emissions Directive

John Tipping

Technical Manager: Operator Self-Monitoring

National Monitoring Services

# Industrial Emissions Directive

- ➔ Background
- ➔ The new Directive
- ➔ Key deadlines
- ➔ What's changing?
- ➔ Challenges for industry

# Why are we all here?



# Why are we all here?

- ➔ Here in Telford?
- ➔ At MCERTS 2011?
- ➔ Emissions monitoring!



# Why are we monitoring emissions?

## ➔ Loads of reasons!

- ➔ Process control - maximise efficiency
- ➔ Performance of abatement equipment
- ➔ Demonstrate environmental acceptability

## ➔ But the main reason...

- ➔ Because **we have to!**
- ➔ Regulatory requirements
- ➔ Conditions in permits driven by the legislation

# Without legislation?



# Industrial Emissions Directive

- ➔ First major new legislation for 10+ years!
- ➔ Very important that we understand its impact and implementation timescales
- ➔ Let's start by looking at where we are now



# Current legislation – IPPC Directive

- ➔ Integrated Pollution Prevention & Control (IPPC) introduced by European Directive 96/61/EC
- ➔ IPPC Directive updated in 2008 to incorporate all previous amendments – Directive 2008/1/EC
- ➔ Introduced to improve the standard of environmental protection across Europe
- ➔ Prevent or minimise emissions to air, land and water
- ➔ An integrated approach to pollution prevention and control
- ➔ Uptake by the 27 Member States disappointing
  - ➔ Estimated less than 50% of sites have permits

# Current legislation – Other Directives

## ➔ Large Combustion Plant Directive

- ➔ For plant  $>50 \text{ MW}_{\text{th}}$  Directive 2001/80/EC replacing 88/609/EEC
- ➔  $\text{NO}_x$  ( $\text{NO} + \text{NO}_2$ ),  $\text{SO}_2$ , Dust and peripherals ( $\text{O}_2$ ,  $\text{H}_2\text{O}$ , T, P)

## ➔ Waste Incineration Directive

- ➔ 2000/76/EC for incineration and co-incineration plant
- ➔  $\text{NO}_x$  ( $\text{NO} + \text{NO}_2$ ),  $\text{SO}_2$ , Dust and peripherals ( $\text{O}_2$ ,  $\text{H}_2\text{O}$ , T, P)
- ➔ CO, TOC
- ➔ HCl, HF
- ➔ Cd, Tl, Hg, Sb, As, Pb, Cr, Co, Cu, Mn, Ni, V
- ➔ Dioxins and furans

## ➔ Other Directives

- ➔ Solvent Emissions Directive, Titanium Dioxide Directives

# Industrial Emissions Directive (IED)

- ➔ New Directive (2010/75/EU) on industrial emissions published in January 2011
  - ➔ Will replace the IPPC, LCP, WID, Solvent Emissions, and three Titanium Dioxide Directives
- ➔ Same objectives as the IPPC and other Directives but...
- ➔ Is aiming to improve consistency of regulation across Europe so...
- ➔ More prescriptive in places
- ➔ Scope extended for certain sectors e.g. waste treatment, timber preservation
- ➔ Some important changes of approach e.g. in setting limits
- ➔ Impact on power stations in the UK

# IED implementation timescales

- ➔ January 2011 – IED comes into force
- ➔ January 2013 – member states deadline for transposing the requirements into national legislation
- ➔ January 2013 – IED applies to all new installations
- ➔ January 2014 – IED applies to existing installations
- ➔ January 2015 – IED applies to existing installations with newly prescribed activities e.g. waste recovery, wood preservation
- ➔ January 2016 – LCP must meet new requirements
- ➔ Implementation in England and Wales will be via the Environmental Permitting Regulations (as with IPPC, LCPD, WID etc).

# IED – Monitoring & ELVs

- ⇒ Article 14 – Monitoring details to be included in the permit
- ⇒ Article 16 – Monitoring should be BAT
- ⇒ Article 15 – Setting emission limit values
  - ⇒ Detailed requirements
  - ⇒ Not exceeding BAT levels
- ⇒ LCPs
  - ⇒ Chapter 3 and Annex V
- ⇒ Incinerators
  - ⇒ Chapter 4 and Annex VI
- ⇒ Articles 38 (LCP) and 48 (Waste Incineration)
  - ⇒ Section 3 – the Competent Authority shall determine the location of the sampling or measurement points to be used...for emissions

# Increased role for BREFs

- ➔ More prescriptive approach in BREFs (Best available techniques REFerence documents)
- ➔ Emission limits and other BREF conditions “**shall be the reference for setting permit conditions**”
- ➔ Expectation that permits will be revised as new or updated BAT (best available techniques) are adopted
- ➔ Less strict emission limits may be allowed for certain installations but have to be justified to the Commission
- ➔ Critical role for BREFs from now on
- ➔ Vital that industry plays a full and active part in BREF reviews

# Impact on large combustion plants

- ➔ Emission limits for SO<sub>2</sub>, NO<sub>x</sub> and dust lower than now
- ➔ CO limit of 100 mg/Nm<sup>3</sup> introduced for gas fired plants
- ➔ From 2016 large coal fired plants (and some older gas fired plants) will have to either install new abatement equipment, reduce operating hours or close
- ➔ Complex series of LCP derogations
- ➔ Certain LCPs will have until July 2020 to comply with the new limits as long as they opt in to the Transitional National Plan. The TNP has to be submitted by Member States by January 2013
- ➔ Limited lifetime exemption available for plants that decide to opt out, and operate for less than 17,500 hours in total between 2016 and end of 2023 or earlier closure

## Impact on SO<sub>2</sub> for coal fired plants (mg/Nm<sup>3</sup>)

Thermal input (MW)	LCP Directive	Thermal input (MW)	IED from 2016
50-100	2000	50-100	400
100-500	2000 to 400 (linear decrease)	100-300	250
>500	400	>300	200



## Impact on NO<sub>x</sub> for coal fired plants (mg/Nm<sup>3</sup>)

Thermal input (MW)	LCP Directive	Thermal input (MW)	IED from 2016
50-500	600	50-100	300
>500	500 200 (from 2016)	>100	200

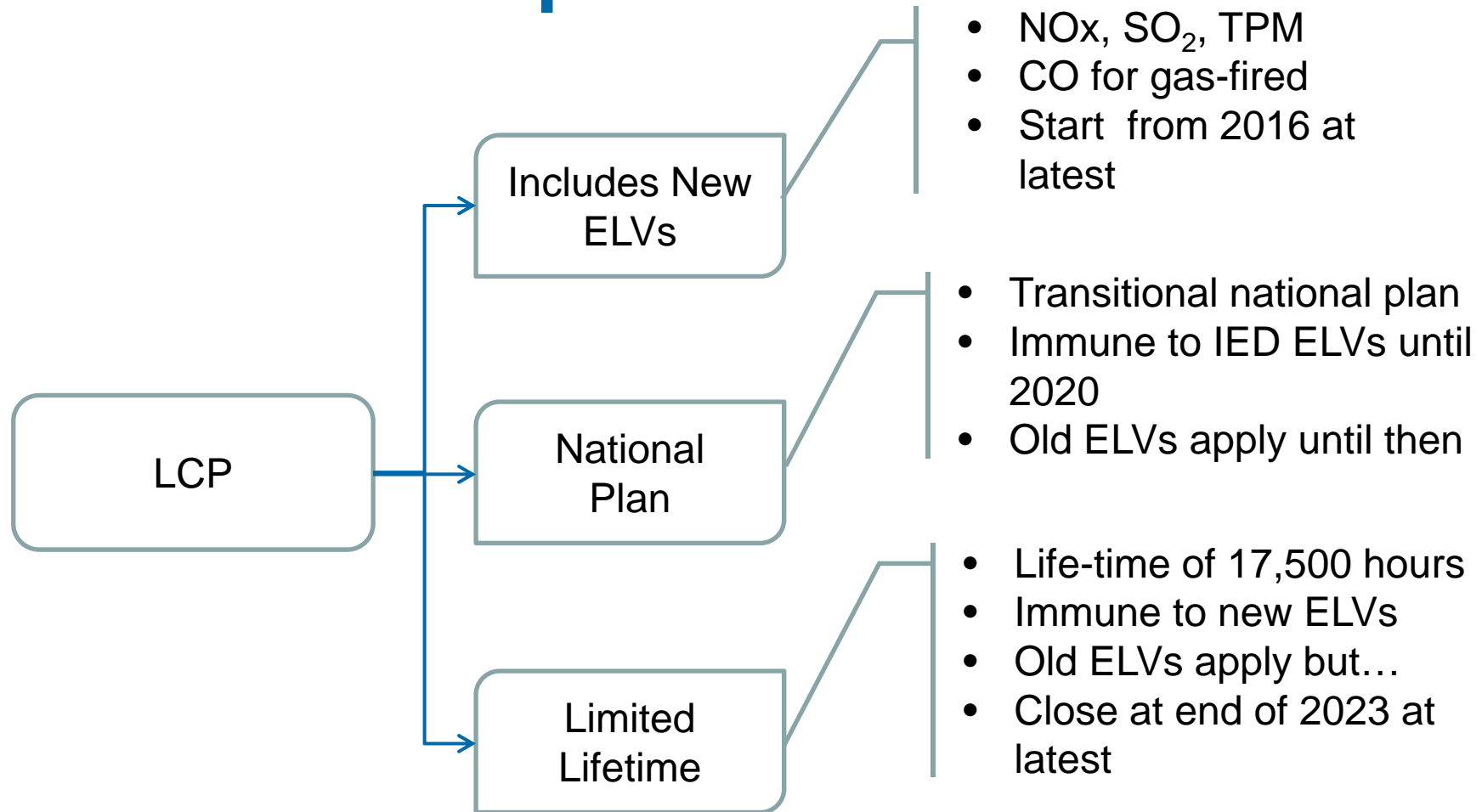
## Impact on dust for coal fired plants (mg/Nm<sup>3</sup>)

Thermal input (MW)	LCP Directive	Thermal input (MW)	IED from 2016
50-500	100	50-100	30
>500	50	100-300	25
		>300	20

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# LCPs – three options



# Summary

- ➔ Background
- ➔ The new Directive
- ➔ Key headlines
- ➔ Challenges for industry
  - ➔ BREFs
  - ➔ LCP operators
- ➔ Any questions?