

VII.

IED KEY FEATURE

***BREFS, BAT CONCLUSIONS, BAT,
AND BAT-AEPLs***

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Reminder:

BAT: best available techniques

BAT BREF reference document: Document drawn up for defined activities and describing applied techniques, present emissions and consumption levels, techniques considered for the determination of BAT

BAT conclusions: document containing the parts of a BAT BREF reference document laying down the conclusions on BAT, their description, information to assess their applicability, the BAT-AELs, associated monitoring, associated consumption levels and, where appropriate, relevant site remediation measures;

BAT-AEL: BAT associated emission levels

BAT-AEPL: BAT associated environmental performance levels

The Seville process – state of play of BREFs and of BAT conclusions

IPPC	IED
Manufacture of organic fine chemicals	Manufacture of glass
Production of polymers	Iron and steel production
Production of speciality inorganic chemicals	Production of cement, lime and magnesium oxide
Large volume inorganic chemicals – ammonia, acids and fertilisers	Tanning of hides and skins
Large volume inorganic chemicals – solids and other industry	Production of Chlor-alkali
IED BREFs to be started	Production of pulp, paper and board
Surface treatment of metals and plastics	Refining of mineral oil and gas
Ceramic Manufacturing Industry	Wood based panels production
[Large volume inorganic chemicals]	Common waste water and waste gas treatment in the chemical sector
REFERENCE documents	Non-ferrous metals industries
Emissions from storage	Intensive rearing of poultry or pigs
Energy Efficiency	Large combustion plants
Industrial cooling systems	Large volume organic chemicals
Economics and cross-media	Waste treatment
Monitoring of emissions to air and water from IED installations	Work in progress
	Food, drink and milk industries
	Waste incineration
	Surface treatment using organic solvents
	Ferrous metals processing industry
	Waste gas treatment in the chemical sector
	Textiles industry
	Slaughterhouses and animal by-products industries
	Smitheries and foundries industry

Some BREFs and BAT conclusions were already established under the previous IPPC Directive (2008/1/EC), but were not legally-binding as such. BAT conclusions adopted under the IED regime by means of a Commission Implementing Decision are legally-binding and must be applied within 4 years after the date of their publication in the Official Journal of the EU (Art. 21(3) IED). Everything marked in green has so far been adopted via a Commission Implementing Decision and can be found here: <https://eippcb.jrc.ec.europa.eu/reference>

The reference documents (marked in blue) are not legally-binding, their purpose is to 'help' in the implementing process.

(non)exhaustive) List of BAT conclusions and dates of applicability

THE reference for setting permit conditions (Art. 14(3) IED)

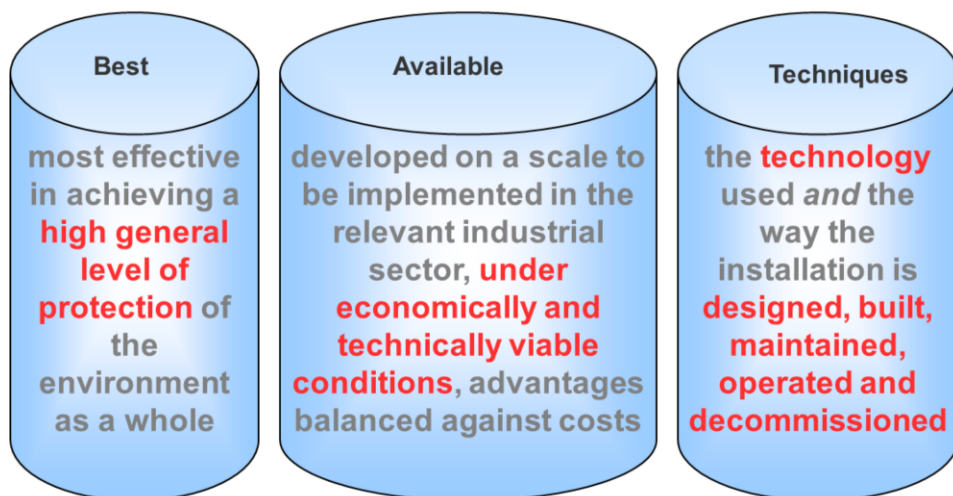
Commission Implementing Decisions (EU):

1. 2012/134/EU: of 28 February 2012 establishing the best available techniques (BAT) conclusions under (the IED) **for the manufacture of glass: applicable at the latest on 08/03/2016**
2. 2012/135 of 28 February 2012 establishing the best available techniques (BAT) conclusions under (the IED) **for iron and steel production: applicable at the latest on 08/03/2016**
3. 2013/163/EU of 26 March 2013 establishing the best available techniques (BAT) conclusions under (the IED) **for the production of cement, lime and magnesium oxide: applicable at the latest on 09/04/2016**
4. 2015/2119 of 20 November 2015 establishing best available techniques (BAT) conclusions, under (the IED) **for the production of wood-based panels: applicable at the latest on 24/11/2019**
5. 2017/302 of 15 February 2017 establishing best available techniques (BAT) conclusions, under (the IED), **for the intensive rearing of poultry or pigs: applicable at the latest on 21/02/2021**
6. 2017/1442 of 31 July 2017 establishing the best available techniques (BAT) conclusions under (the IED) **for large combustion plants : applicable at the latest on 17/08/2021**

❖ Relevant IED Definitions

- Art. 3(11) IED: **"BAT reference document" (BREF)**= document resulting from the exchange of information under Art. 13 (for defined activities)
 - Art. 3(12) IED: **"BAT conclusions"** = document containing the parts of BREF laying down the conclusions on BAT, their description, information to assess their applicability, the emission levels associated with the BAT, associated monitoring, associated consumption levels and, where appropriate, relevant site remediation measures
 - Art. 3(13) IED: **"Emission levels associated with the best available techniques" (BAT-AEL)** = *range* of emission levels obtained under normal operating conditions using a BAT or a combination of BAT, as described in BAT conclusions, expressed as an average over a given period of time, under specified reference conditions
- ❖ **"Environmental performance levels associated with the best available techniques"**
- BAT-AELs
 - Non-emission BAT-AEPLs, including consumption levels (e.g. water), efficiency levels (e.g. energy use) and narrative environmental performance (e.g. waste management with priority to re-use)

Definition of Best Available Techniques (BAT): Art. 3(10) IED



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Detailed explanation of the BAT definition; the concept was already set out in the IPPC Directive (2008/1/EC).

(1) Obligation to use BAT to set permit conditions and to operate IED installations

Alike under the IPPC Directive, permit conditions under the IED must be *based upon BAT* and operators must operate with BAT (no derogation!)

- **Art. 11(b) IED:** The *general principles governing the basic obligation of the operator* includes the mandatory use of BAT.
- **Art. 12(1)(g) IED:** *Permit applications* must include a description of:
 - ✓ the proposed technology and other techniques for preventing/reducing emissions from the installation
 - ✓ The main alternatives to the proposed technology, techniques and measures studied by the permit applicant
- **Art. 14(1) IED:** *Permit conditions* must include all conditions necessary to include compliance with i.a. Art. 11(b) IED
- **Art. 15(2) IED:** *ELVs in permit must be based upon BAT*

No IED installation can operate without making use of BAT. Operators remain free to define what BAT to apply.

(2) Where are BAT defined?: BREF & BAT Conclusions

- *Description of sector, activities, ..*
- *Current emission and consumption levels*
- *Techniques to be considered in determining BAT*

- *BAT Conclusions containing
BAT (list of techniques)
+ BAT emission levels (BAT AEL)*

Adoption via
Implementing Act

- *Emerging techniques*
- *Recommendations for future work*

BAT conclusions are described in BREF and adopted by means of a Commission Implementing Decision.

(2bis) BAT defined on the basis of 12 criteria listed in Annex III IED

1. the use of low-waste technology;
2. the use of less hazardous substances;
3. the furthering of recovery & recycling of substances generated/used in the process and of waste,
4. comparable processes/facilities/methods of operation that tried successfully on industrial scale;
5. technological advances and changes in scientific knowledge and understanding;
6. the nature, effects and volume of the emissions concerned;
7. the commissioning dates for new or existing installations;
8. the length of time needed to introduce the best available technique;
9. the consumption/nature of raw materials (incl. water) used in the process and energy efficiency;
10. need to prevent/reduce to a minimum overall impact of emissions upon envir. and the risks to it;
11. need to prevent accidents and to minimise the consequences for the environment;
12. information published by public international organisations.

Annex III IED contains a list of criteria that competent authorities and operators must take into account when defining a BAT

Example of BAT defined in BAT Conclusions on large combustion plants (Section 8 *Description of techniques*)

8.3. Techniques to reduce emissions of NO_x and/or CO to air

Technique	Description
Air staging	The creation of several combustion zones in the combustion chamber with different oxygen contents for reducing NO_x emissions and ensuring optimised combustion . The technique involves a primary combustion zone with substoichiometric firing (i.e. with deficiency of air) and a second reburn combustion zone (running with excess air) to improve combustion. Some old, small boilers may require a capacity reduction to allow the space for air staging.
Combined techniques for NO _x and SO _x reduction	The use of complex and integrated abatement techniques for combined reduction of NO _x , SO _x and, often, other pollutants from the flue-gas, e.g. activated carbon and DeSONOX processes . They can be applied either alone or in combination with other primary techniques in coal-fired PC boilers.

Example of BAT defined in BAT Conclusions on intensive rearing of poultry and pigs (Section 4 *Description of techniques*)

4.13.2. Techniques to reduce emissions of ammonia from broiler houses

Technique

Natural or forced ventilation with a non-leaking drinking system (in case of solid floor with deep litter).

Forced drying system of litter using indoor air (in case of solid floor with deep litter).

Description

The **building is closed and well-insulated**, equipped with natural or forced ventilation, and can be combined with a veranda and/or a free-range system. The solid floor is fully covered with litter which can be added to upon necessity. Floor insulation (e.g. concrete, clay, membrane) prevents water condensation in the litter. Solid manure is removed at the end of the rearing cycle. The design and operation of the drinking water system prevents leakage and spillage of water on the litter.

Indoor air recirculation systems can be used to dry the litter, while meeting the physiological needs of the birds. To this end, fans, heat exchangers and/or heaters can be used.

Example of BAT defined in BAT Conclusions on production of pulp paper and board (Section 1.7 *Description of techniques*)

1.7.1.2 Techniques for the prevention and control of NO_x emissions to air

Technique	Description
Reduction of air/fuel ratio	The technique is mainly based on the following features: — careful control of air used for combustion (low excess oxygen), — minimisation of air leakages into the furnace, — modified design of the furnace combustion chamber.
Optimised combustion and combustion control	Based on permanent monitoring of appropriate combustion parameters (e.g. O ₂ , CO content, fuel/air ratio, un-burnt components), this technique uses control technology for achieving the best combustion conditions. NO _x formation and emissions can be decreased by adjusting the running parameters, the air distribution, excess oxygen, flame shaping and the temperature profile.

Example of a “negative” BAT Conclusion in BAT conclusions on production of chlor-alkali (BAT conclusion 1 Cell technique)

BAT 1: BAT for the production of CAK is to use one or a combination of the techniques given below. The mercury cell technique cannot be considered BAT under any circumstances. The use of asbestos diaphragms is not BAT.

Technique	Description	Applicability
a Bipolar membrane cell technique	Membrane cells consist of an anode and a cathode separated by a membrane . In a bipolar configuration, individual membrane cells are electrically connected in series .	Generally applicable.
b Monopolar membrane cell technique	Membrane cells consist of an anode and a cathode separated by a membrane. In a monopolar configuration, individual membrane cells are electrically connected in parallel .	Not applicable to new plants with a chlorine capacity of > 20 kt/yr.
c Asbestos-free diaphragm cell technique	Asbestos-free diaphragm cells consist of an anode and a cathode separated by an asbestos-free diaphragm. Individual diaphragm cells are electrically connected in series (bipolar) or in parallel (monopolar) .	

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‘Negative’ BAT conclusions lead to techniques not being allowed → operators can never use this technique and the competent authorities can not allow this technique being used as it does not qualify as BAT in the first place.

(2 ter) Margin of discretion in the choice of the BAT

All BAT conclusions specify that techniques listed therein are not exhaustive nor prescriptive (save for “negative BAT” that cannot be used) and that other BAT can be used to set permit conditions.

- **Art. 14(5) IED:** Competent authorities can **set permit conditions on the basis of BAT not described in BAT conclusions**. If so, the competent authorities must ensure:
 - ✓ the techniques used to set permit conditions must be determined by giving special consideration to criteria listed in Annex III to the IED
 - ✓ The requirements of Art. 15 IED on compliance with BAT-AELs must be ensured
- **Case T-739/17 Eurocoal v. Commission – Ruling of 13/12/2018**
 - ✓ (91) *The competent authorities have the discretion to choose upon which BAT described or not described in BAT Conclusions they set ELVs*
- **Art. 15(2) IED:** IED permit does prescribe to the operator the use of any particular technique or specific technology. **Operator remains free to choose the BAT**, without prejudice to the obligation to comply with relevant BAT-AELs

Specific case where a type of production process not addressed in BAT conclusions:

- **Art. 14(6) IED:** Competent authority define permit conditions on the basis of BAT determined by giving special consideration to criteria listed in Annex III to the IED

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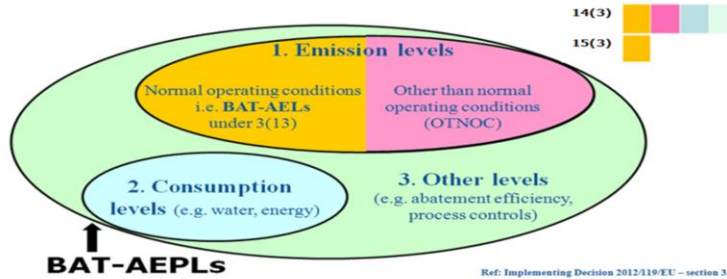
The margin of discretion has been acknowledged by the CJEU in the ‘Eurocoal’ case.

(3(i)) Role of the BAT Conclusions in setting permit conditions – Typical content of BAT Conclusions

- Typically between 15 and 70 Conclusions, including description of techniques as possible BAT and on the basis of which BAT-AEPLs have been set
- Topics covered (depends on sector) could include:
 - Environmental management systems
 - Noise
 - Emissions to soil and groundwater
 - Energy management and efficiency
 - Odour
 - Management of waste and residues and reuse
 - Monitoring
 - Emissions to air
 - Emissions to water
 - Water use

(3(ii)) Role of the BAT Conclusions in setting permit conditions: content in terms of BAT-AEPLs

BAT-AEL (associated emission level) & BAT-AEPL (associated envir. performance levels)



- * Art. 14(3) IED = All indicated elements (all colours) covered by: 'BAT conclusions shall be the reference for setting permit conditions'
- * Art. 15(3) IED = Refers to emission limit values (ELVs) in permit / under NOC, emissions do not exceed emission levels associated with BAT

There are two main types of environmental requirements in BAT Conclusions: the BAT-AELs (Emission levels associated to BAT) and BAT-AEPL (Environmental performance levels associated to BAT)

BAT Conclusions are the reference for setting IED permit conditions (Art. 14 (3) IED)

(3(iii)) Role of the BAT Conclusions in setting permit conditions in terms of emission levels: implementation of BAT-AELs

- **ELVs in permits to ensure compliance with BAT-AELs set in BAT Conclusions (Art.15(3) IED).**
 - ✓ **Basic obligation:** The competent authorities must set ELVs in IED permit that ensure that, under normal operating conditions, emissions do not exceed the BAT-AELs laid down in BAT Conclusions
 - ✓ Competent authorities may **have to set stricter ELVs** if needed to comply with applicable EU EQS (Art. 18 IED).
 - ✓ Competent authorities **can always decide to set stricter ELVs** in permits (Art. 14(4) IED), irrespective of Art. 18 IED
 - ✓ Competent authorities may decide to complement or replace ELVs by **equivalent parameters or technical measures** that ensure an equivalent level of environmental protection
 - ✓ **Derogation possible** under Art. 15(4) IED
 - ✓ BAT-AELs usually **stricter than IED minimum sectoral requirements**.

ELV = emission limit values

- How BAT-AELs range set in BAT Conclusions compared to the minimum requirements set out in Annexes to the IED – they are usually stricter (never less strict)

Comparison between BAT-AELs set in the LCP BAT Conclusions and ELVs set in Annex V to IED for existing coal/lignite fired boilers for dust and NO_x emissions

MWth	BATc yearly	IED monthly	IED daily	BATc daily
<100	2-18	30	33	4-22
100-300	2-14	25	27.5	4-22
300-1000	2-10	20	22	3-11
>1000	2-8			3-11

MWth	BATc yearly	IED monthly	IED daily	BATc daily
<100	100-270	300	330	165-330
100-300	100-180	200	220	155-210
>300	85-175	200	220	140-220
PC lignite and FBC				
>300 PC coal	65-150			85-165

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Remember: BAT-AELs are expressed as ranges

(3 (iv)): **Status of BAT-AELs set in BAT Conclusions: Case T-739/17 Eurocoal v. Commission – Ruling of 13/12/2018**

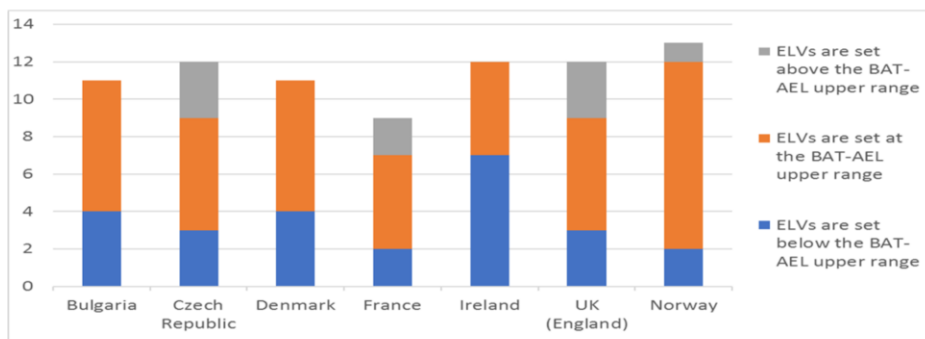
Margin of discretion of competent authorities in setting ELVs within the BAT-AEL range

- **(97):** The competent authorities have a margin of discretion in setting ELVs in the IED permit vis-à-vis the BAT-AELs range: ***No obligation to set ELVs on the basis of the upper-range of the BAT-AELs.***
- **(117):** Given the margin of discretion of competent authorities, the BAT-AELs set in BAT Conclusions have ***no 'direct effect'***. It is the ELVs set in IED permit, which modify the legal situation of the operators.

According to EU judge, the competent authority has no obligation to set ELVs in IED permit based upon the upper-range of a BAT-AEL and the operator has no right to require the competent authority to set such permit conditions based upon the upper-range of a BAT-AEL

Stringency of permit conditions – Implementing BAT-AELs “ranges” (1)

“The costs of not implementing EU environmental law”, DG ENV 2019 - Assessment of 15 permits for the cement sector across 6 MSs (and NO) to identify stringency of permits → how BATc have been implemented



Report available from here:

http://ec.europa.eu/environment/eir/pdf/study_costs_not_implementing_env_law.pdf

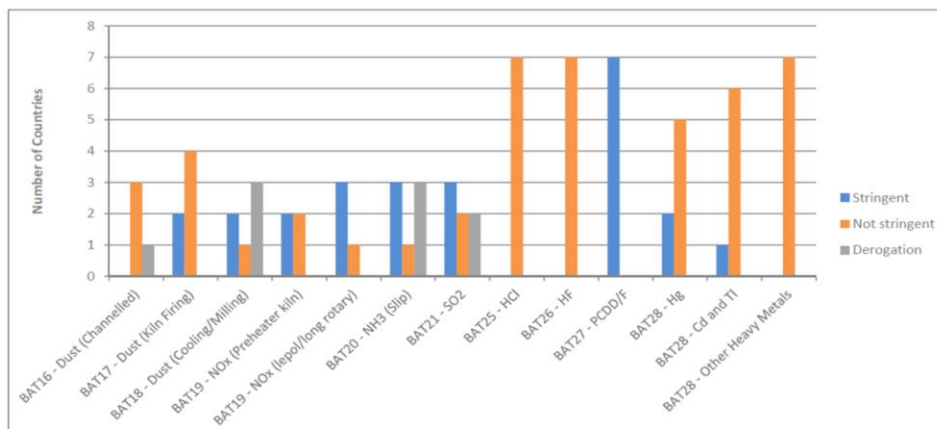
Stringent: ELVs are set below the BAT-AEL upper range;

Not stringent: ELVs are set at the BAT-AEL upper range; and

Derogations: ELVs are set above the BAT-AEL upper range, which implies reliance upon the derogation under Article 15(4) of the IED.

Stringency of permit conditions Implementing BAT-AELs "ranges' (2)

"The costs of not implementing EU environmental law", DG ENV 2019- Assessment of 15 permits for the cement sector across 6 MSs (and NO) to identify stringency of permits
Distribution of permit stringency across BAT conclusions



Report available from here:

http://ec.europa.eu/environment/eir/pdf/study_costs_not_implementing_env_law.pdf

Stringent: ELVs are set below the BAT-AEL upper range;

Not stringent: ELVs are set at the BAT-AEL upper range; and

Derogations: ELVs are set above the BAT-AEL upper range, which implies reliance upon the derogation under Article 15(4) of the IED.

(3(v)) What if no BAT-AELs set in BAT Conclusions?

- Art. 14(5)(2nd sub§) IED:
 - ✓ ELVs set in IED permits must ensure a level of environmental protection equivalent to the one that would be met by the relevant BAT identified in the BAT Conclusions

(3(vi)) What level of environmental requirements in terms of emission levels if no BAT Conclusions?

- Permit conditions, including ELVs (for at least pollutants listed in Annex II) based on BAT.
- Permit conditions must ensure, at least, compliance with minimum sectoral requirements set in IED Annexes V and if need be with applicable EU EQS (Art. 18 IED).

(4(i)) Role of the BAT Conclusions in setting permit conditions regarding non-emission environmental performance levels (BAT-AEPLs) –

Example of non-emission quantitative BAT-AEPLs: LCP BAT Conclusions – BAT 19 –
BAT-associated energy efficiency levels for coal and/or lignite combustion (BAT-AEELS)

Type of combustion unit	BAT-AEELS		
	Net electrical efficiency (%)		Net total fuel utilisation (%)
	New unit	Existing unit	New or existing unit
Coal-fired, $\geq 1\,000$ MWth	45 – 46	33,5 – 44	75 – 97
Lignite-fired, $\geq 1\,000$ MWth	42 – 44	33,5 – 42,5	75 – 97
Coal-fired, $< 1\,000$ MWth	36,5 – 41,5	32,5 – 41,5	75 – 97
Lignite-fired, $< 1\,000$ MWth	36,5 – 40	31,5 – 39,5	75 – 97

Example of narrative BAT-AEPLs: LCP BAT Conclusions – BAT 13 - BAT-associated on reduction of water usage and volume of contaminated wastewater discharge:

Technique	Description	Applicability
a. Water recycling	Residual aqueous streams , including run-off water, from the plant are reused for other purposes . The degree of recycling is limited by the quality requirements of the recipient water stream and the water balance of the plant	Not applicable to waste water from cooling systems when water treatment chemicals and/or high concentrations of salts from seawater are present
b. Dry bottom ash handling	Dry, hot bottom ash falls from the furnace onto a mechanical conveyor system and is cooled down by ambient air. No water is used in the process.	Only applicable to plants combusting solid fuels. There may be technical restrictions that prevent retrofitting to existing combustion plants

(4(ii) Margin of discretion of competent authorities

- On the one hand, the BAT Conclusions are THE reference for setting permit conditions (Art. 14(3) IED:
- On the other hand, no equivalent IED provisions than Art. 15(3) IED for emissions !

VIII.

IED KEY FEATURES

SOIL CLEAN-UP

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IED is a key instrument of EU law regarding soil remediation (when pollution caused by an IED installation)

(1) General

- IED as a key instrument to help achieve the main objectives of the Thematic Strategy on Soil Protection
- Activities carried out by IED installations may lead to serious soil and groundwater contamination
- Art. 22 IED applies without prejudice to the Environmental Liability Directive (2004/35/EC), the Water Framework Directive (2000/60/EC) and the Groundwater Directive (2006/118/EC).
- IED focuses on three key aspects with regard to soil and groundwater protection:
 1. Preventive measures
 2. Monitoring
 3. Site closure and remediation upon definitive cessation of activities.

(2) The prevention of contamination (Art. 14(1)(b)(e) IED)

- **'Pollution'** includes land – Art. 3(2) IED
- **Permit conditions to include:**
 - requirements ensuring protection of the soil and groundwater
 - requirements for regular maintenance and surveillance of measures taken to prevent emissions to soil and groundwater
 - requirements on the periodic monitoring of soil and groundwater in relation to relevant hazardous substances likely to be found on site and having regard to the possibility of contamination

(3) Monitoring requirements (Art. 16(2) IED)

- Monitoring to be based on BAT conclusions when available
- Frequency of monitoring to be specified by CAs (in permit or general binding rules)
- As a minimum: Monitoring for soil **at least every 10 years** and groundwater at **least every five years** unless monitoring based upon a systematic appraisal of the risk of contamination.

(4) Site closure and remediation – baseline report (Art. 22)

➤ **Problem definition under 2008/1/EC IPPC Directive**

- IPPC = return the site to a “satisfactory state”
- Wide differences of interpretation across Member State - Large variation in the level of environmental protection

➤ **IED approach**

- “historical contamination” = risk-based regime
- “future contamination” = prevention

➤ **Elaboration of a baseline report**

- “baseline report = *“info. on the state of soil and groundwater contamination by relevant hazardous substances”* (Art. 3(19))
- Application for permits now includes ‘description of the site conditions’ and “*where applicable a baseline report*” (Art. 12)

As an important part of the application for permits a baseline report needs to be provided by the operator (next to the description of the site conditions)

➤ **Baseline report required when the activity involves the:**

- use, production or release of relevant hazardous substances and
- having regard to the possibility for contamination from the installation

➤ **Baseline report prepared:**

- before starting operation or
- before a permit is updated for the first time after 07/01/2013

➤ **Baseline report to contain information:**

- necessary to determine state of soil and groundwater contamination (existing info or new measurements)
- to enable a quantified comparison (extent and degree of contamination) with state upon cessation of activities (info. on the present use and, where available past uses)

➤ **2014 Commission guidance on baseline reports :**

- ❑ Provides details on 8 stages relevant to prepare a baseline report

The guidance document is not legally-binding, but aims at helping the operators to establish their baseline reports

(5) Site closure - Remediation - Routine case - (Art. 22(3)(1st sub§) IED)

➤ **Situation**

- Definitive cessation of the activity of the installation

➤ **Action by the operator**

- ✓ assesses state of soil and groundwater contamination by relevant hazardous substances.
- ✓ compares the final assessment and the initial baseline report.
- ✓ If **significant pollution** of soil or groundwater: must take the 'necessary measures' to return the site to **the initial state established in the baseline report**.
- ✓ technical feasibility of measures may be taken into account

(6) Site closure - Remediation – Case where “significant risk”– (Art. 22(3)(2nd sub§) IED)

➤ **Situation**

- Definitive cessation of the activity
- Contamination of soil and groundwater poses a **significant risk** to human health or environment
- Contamination caused by the operator’s activities carried out before the first update of the permit after 07/01/2013

• **Action by operator:**

- ✓ take ‘necessary measures’ **to remove risk** (may include removal, control, containment or reduction of hazardous substances.)
- ✓ can take into account current or approved future site use, but no mention of ‘technical feasibility’

(7) Site closure - Remediation - Case where no baseline report required – (Art. 22(4) IED)

➤ **Situation**

- No baseline report was required
- Definitive cessation of activities
- Contamination of soil and groundwater poses **a significant risk** to human health or environment
- Contamination caused by the operator's permitted activities on the site

• **Action by operator:**

- ✓ take 'necessary actions' so that site **ceases to pose significant risk** (may include removal, control, containment or reduction of hazardous substances).
- ✓ can take into account current or approved future site use, site conditions in permit application (Art. 12(1)(d) IED), but no mention of 'technical feasibility'

IX.

IED

***SPECIAL FOCUS ON LARGE
COMBUSTION PLANTS***

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Slides on large combustion plants were skipped in the presentation



LCP subject to specific EU legislation since 1984

- 1981 CLRTP Decision (81/462/EEC)
- 1984 Directive on industrial air pollution (84/360/EEC)
- 1988 Directive on large combustion plants (88/609/EEC)
- 2001 Large Combustion Plants Directive (2001/80/EC)
- 2010 Industrial Emissions Directive (2010/75/EU)
- 2017 LCP BAT conclusions

(1) IED sets stricter ELVs (Annex V) as "EU minimum requirements" compared to LCP Directive (2001/80/EC)

❖ Status as "EU minimum requirements" confirmed

- IED makes clear that ELVs set out in Annex V are "EU minimum requirements"
- IED permits may have to set stricter ELVs if requires by BAT, BAT-AELs and/or the need to ensure compliance with applicable EU EQS.

❖ Stricter ELVs for SO₂, NO_x and dust

- Aligned with BAT-AELs (upper-end of range) defined in LCP BREF (2006)
- Applicable on 07/01/13 for "new" LCP and on 01/01/16 for "existing" LCP

(2) IED Clarification: "Plant" = "common stack" + de minimis rule

- Art. 29(1) IED: when 2 "plants" release emissions via a common stack: 1 single LCP
- Art. 29(2) IED: when 2 plants authorised post-1987 could release their emissions via a common stack: 1 single LCP
- Plants of at least 15 MW are covered by aggregation rule

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(3) Transitional flexibility: Opt-out/limited lifetime derogation (Art. 33 IED): up to 31/12/2023

- Only “**existing**” LCP, save those which were granted an opt-out derogation (2008-2015) under LCP Directive (2001/80/EC)
- Derogation to IED **Annex V (Part 1) ELVs**
- Operator must commit in written form by 07/01/14 that his LCP will **not operate more than 17.500 h** between 01/01/16 and 31/12/23
- ELVs set in permits must however maintain the **ELVs that were applicable on 31/12/15** pursuant to the IPPC and LCP Directives
- 24 MS have provided by 01/01/16 list of LCP covered with associated info (e.g. rated thermal input)
 - BE, BG, CZ, CY, DE, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LT, LV, PL, PT, RO, SE, SI, SK, and UK
 - All except AT, LU, MT, and NL

(4) Transitional flexibility: Small isolated systems derogation (Art. 34 IED): up to 01/01/2020

- Only “**existing**” **LCP**, which were part to a small isolated systems by 06/01/11
- Derogation to IED **Annex V (Part 1) ELVs**, save for LCP > 500 MW post-1987 that must complied with IED ELVs (Annex V (Part 1) set for NOx)
- Derogation applicable between 01/01/16 and 01/01/20. Installation may then be covered by an opt-out derogation (Art. 33) until 31/12/23
- ELVs set in permits must however maintain the **ELVs that were applicable on 31/12/15** pursuant to the IPPC and LCP Directives.
- 7 MS have provided by 07/01/13 a list of LCP covered with associated info (e.g. energy consumption):
 - CY, EL, ES, FR, MT, PT and UK

(5) Transitional flexibility: District heating plants derogation (Art. 35 IED): up to 01/01/2022

- Only **LCP of maximum 200 MW authorised before 27/11/02** or complete permit application after 27/11/02 and in operation by 27/11/03 **and where 50% at least of useful heat production** is delivered as steam or hot water to a public network for district heating
- Derogation to IED **Annex V (Part 1) ELVs**
- Derogation applicable between 01/01/16 and 01/01/22. Installation may then be covered by an opt-out derogation (Art. 33) until 31/12/23
- ELVs set in permits must however maintain the **ELVs that were applicable on 31/12/15** pursuant to the IPPC and LCP Directives.
- 13 MS have provided by 01/01/16 list of LCP covered with associated info (e.g. rated thermal input)
 - BG, CZ, DE, DK, FI, HR, HU, LT, PL, RO, SE, SI and SK
- MS provide annually info on the share of heat production that was delivered as steam or hot water to a public network for district heating

(6) Transitional flexibility: Transitional national Plans (Art. 32 and Cion Implementing Decision 2012/115/EU of 10/02/12): up to 30/06/2020

❖ **Objective**

- To allow MSs to grant, under certain conditions, a 4 ½ years transitional period (01/01/16 – 30/06/20) to some LCP to comply with ELVs set in Annex V (Part I) IED.

❖ **Scope: “existing” combustion plants**

- Only *LCP authorised before 27/11/02* or which completed permit application before that date and were in *operation before 27/11/03*
- **EXCLUDED:**
 - ❖ plants benefiting from a limited lifetime or district heating plants derogation
 - ❖ plants opted out under LCP Directive (Art. 4(4))
 - ❖ plants firing gasified refining residues or distillation/conversion residues

❖ **Scope: pollutants**

- emissions of SO₂, NO_x and dust
- MSs can include 1 or more of these pollutants in TNPs and *to determine, for each TNP plant, for which pollutant(s)* the TNP applies (save for gas turbines: only NO_x)

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❖ **Emission ceilings**

- TNP must include, for each pollutant concerned, an *emission ceiling* for 2016, 2017, 2018, 2019 and 1st semester 2020, applicable to all TNP plants taken together.

❖ **ELVs at plant level**

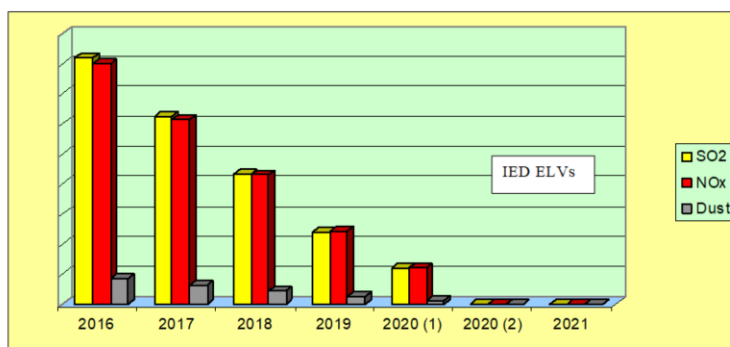
- ELVs set in permits must however maintain the *ELVs that were applicable on 31/12/15* pursuant to the IPPC and LCP Directives
- for *post-July 1987 plants > 500 MW* firing solid fuels: IED NOx ELVs apply
- compliance from 01/07/20 on with ELVs set in Annex V (Part 1) IED

❖ **Information to include in TNP**

- Information listed in Art. 32(4) IED and Art. 2 of Cion Implementing Decision 2012/115/EU (e.g. list of plants, rated thermal input, type of fuels etc.) and use of the templates set in the latter.

Transitional National Plan (TNP) option

Annual ceilings with linear decrease: LCP → IED limit values



❖ **Subsequent changes to a TNP**

- Changes (e.g. closure of a plant) must not lead to an increase in total annual emissions for the remaining TNP plants and must be communicated to Cion.

❖ **Monitoring, reporting and remedial action**

- CAs must monitor emissions of SO₂, NO_x and dust from each TNP plant by verifying the operator's monitoring/calculation data. When there is a risk that emissions would exceed TNP ceilings, measures have to be taken to prevent this risk to materialise.
- Cion is to be informed on annual basis of emissions of each TNP Plant.

❖ **Evaluation and approval / rejection of TNP by Cion**

- 15 MSs communicated their TNPs to Cion by 01/01/2013
 - BG, CZ, EL, ES, FI, HR, HU, IE, LT, PL, PT, RO, SI, SK and UK
- Cion assessed TNPs in accordance with Art. 32(2-4) IED and Cion Implementing Decision 2012/115/EU.
- ✓ If Cion raises no objections within 12 months: TNP approved
- ✓ If Cion raises objections: MS can submit a revised TNP. Cion will then have 6 months to assess it.

X.

Assess IED implementation:

***MONITORING EMISSIONS AND
COMPLIANCE ASSESSMENT***

(1) Emission monitoring requirements must be set in permits or General Binding Rules

- Art. 14(1)(c) IED: IED permits / GBR must specify the measurement methodology, frequency and evaluation procedure

(2) Monitoring requirements

- Art. 16(1): Monitoring requirements shall be based on conclusions on monitoring set in BAT conclusions where applicable
- If not set in BAT conclusions, specific IED provisions apply, including e.g.
 - ✓ LCP: Art. 38 and Annex V (part 3)
 - ✓ Waste (co-)incinerators: Art. 48 and Annex VI (Parts 6 and 7)
 - ✓ VOC activities covered by Chapter V: Art. 70 and Annex VIII (Part 3)

(3) Compliance assessment with applicable emission limit values

- Art. 14(1)(h) IED: IED permits / general binding rules must set conditions for compliance assessment with the applicable emission limit values
- Annexes to the IED set rules on compliance assessment, including e.g. for LCP (Annex V, part 4) and waste (co-)incinerators (Annex VI, Part 8)

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Monitoring requirements are mostly found in BAT Conclusions, otherwise the IED contains specific provisions

XII.

Assess IED implementation:

INSPECTIONS

(1) Environmental inspections plans

- All Annex I installations must be covered by an environmental inspection plan (to be regularly updated) at national / regional or local level, which includes, a.i. the list of the installations covered, the geographical area concerned.

(2) Environmental inspections programmes

- CAs regularly draw up programmes for routine environmental inspections, including frequency of site visits for the different types of installations
- ✓ *Frequency*: defined on basis of risk appraisal of installations, but minimum yearly (higher risk) up to 3-yearly (lowest risk)
- ✓ *Criteria*: potential/actual impacts, compliance track with permit conditions etc.
- ✓ If *important case of non-compliance*: additional site visit within 6 months.

(3) Non-routine Environmental inspections

- To investigate serious complaints on breach of permit conditions
- If serious environmental accidents/incidents and occurrence of non-compliance with environmental law

(4) Environmental inspection reports

- After each site visit: report notified to operator and then *made public* within 4 months.

The inspection programmes are created based on the environmental inspection plans

XIII.

Assess IED implementation:

REPORTING

(1) General reporting obligation to the Commission: annual reporting

- Art. 72(1) IED: MS shall report electronically to the Commission on implementation of the IED, including emissions data, application of the BAT etc.
- The Commission has established a reporting format by means of Implementing Decision 2018/1135/EU of 10/08/2018: Legal basis: Article 72(2) IED
 - ✓ It covers all installations listed in Annex I, LCPs and (co-)incinerators
 - ✓ Requires information on i.a. permit granted, derogation Art. 15(4) IED, inspection reports emission monitoring data etc.. And implements reporting obligations set under Art. 51(4), 55(2) and 59(1-3) IED on (co-)incinerators

(2). Additional specific reporting obligations on LCP, e.g.

- **Annual emission inventory** for each LCP (starting 01/01/16) – Cion makes publicly available every 3 years a summary of the comparison and evaluation of national inventories (Art. 72(3) IED)
- Annual data on the number of operating hours of **LCP operating < 1.500 H/year** as a rolling average over a period of 5 years (Art. 72(4))
- Information on **LCP that benefit from a derogation** (e.g. list of LCP that benefit from the "small isolated system" derogation)



(3) Other reporting obligation to the Commission under E-PRTR Regulation 166/2006, now being amended by Commission implementing Decision (adoption foreseen on 23/09/2019)

- Will require annual reporting per each installation on:
 - ✓ Air emissions
 - ✓ Water releases
 - ✓ Land releases
 - ✓ Off-site transfer of waste water treatment
 - ✓ Off-site transfers of hazardous and non-hazardous waste

E-PRTR = European Pollutant Release and Transfer Register

→ web-based register established by Regulation (EC) No 166/2006

XIII.

WHEN NON-COMPLIANCE WITH PERMIT CONDITIONS ARE IDENTIFIED

(1) Obligation of operators (Art. 8(2)(a)(b) IED)

- immediately **inform the competent authorities** of a breach of its permit conditions
- immediately **take measures to restore compliance** as soon as possible

(2) Obligations of competent authorities (Art. 8(1)(a)(b) IED)

- As a general duty, they must ensure that compliance with permit conditions is ensured (need to ensure that monitoring, inspections and reporting take place)
- They require the operator to take any **appropriate complementary measures** if need be to restore compliance
- They must **suspend the operation of the IED installation** when the breach of permit conditions:
 - ✓ poses an immediate danger to human health or
 - ✓ threatens to cause an immediate significant adverse impact on the environment

XIV.

ROLE OF THE PUBLIC AND NGOs

(1) Public participation in IED permitting procedure (Art. 24(1) IED)

❖ **"Public concerned" (Art. 3(17) IED)**

"Public affected or likely to be affected by, or having an interest in, the taking of a decision on the granting or the updating of a permit or permit conditions, (...), (NGOs) promoting environmental protection and meeting any requirements under national law shall be deemed to have an interest"

❖ **The 'public concerned' is entitled to express comments and opinions before the granting/updating of an IED permit in the following cases:**

- ✓ for new IED installation
- ✓ for a substantial change to an IED installation
- ✓ when an installation relies upon Art. 15(4) IED derogation
- ✓ when ELVs in an IED need to be revised given significant pollution caused by the installation (Art. 21(5)(a) IED)

❖ **Details of the public participation procedure set in Annex IV IED as minimum requirements to ensure timely and effective input**

- ✓ Provisions on the communication of all relevant information ex-ante
- ✓ Duty of competent authorities to take opinions and comments into account

➤ **Apply without prejudice to:** Directive 2011/92/EC on Environmental Impact Assessment

(2) Information to be made available to the 'public' once IED permit granted (Art. 24(2, 3, 4) IED): more compared to 2008/1/EC IPPC Directive

- **Apply without prejudice to:** *Directive 2003/4/EC on access to environmental information*
- **By means of Internet:**
 - ✓ Content of decision to grant/update permit and copy of the permit granted/updated
 - ✓ Reasons on which the decision is based
 - ✓ Reasons for granting Art. 15(4) IED derogation
 - ✓ Relevant information on measures taken by operator upon definitive cessation of activities in accordance with Art. 22 on soil clean-up
- **Other information to be made available to the 'public':**
 - ✓ Applicable BREF and BAT conclusions to the installation
 - ✓ How ELVs set in the IED permit compare to the applicable BAT-AELs
 - ✓ Result of emission monitoring
 - ✓ Extent to which opinions / comments expressed have been taken into account
 - ✓ Inspection reports (Art. 23(6) IED)
- **Other provision: e.g. Waste (co-incinerators) with capacity < 2t/hour (Art. 55 IED)**
 - ✓ List of such installations to be available to the public

"Burning: The Evidence. How European Countries Share Industrial Pollution Permit Information Online. A case study on Large Combustion Plants" EEB, 2017

- Assessment against multiple areas: permits, reports, other information, ease of use
- Quality and availability of information across the EU is very diverse
- Minimum requirements of IED are not met in every MS



Figures from interactive map here:

https://eeb.org/Burning_TheEvidence_Map/public/index.html

(3) Access to justice to 'public concerned'/NGOs (Art. 25 IED)

➤ Who can have access

- ✓ **Members of the 'public concerned'** who have a sufficient interest and, if required by national law, maintain the impairment of a right as a pre-condition (must be interpreted in such a way as to give wide access to justice)
- ✓ **NGOs promoting environmental protection** and meeting other national law

➤ For which reasons

- ✓ To challenge the substantive or procedural legality of decisions referred to in Art. 24(1) IED related to the granting/updating of IED permit for e.g.:
 - for new IED installation or for a substantial change to an IED installation or when an installation relies upon Art. 15(4) IED derogation
 - Breach of public participation procedure requirements set in Annex IV
- ✓ To challenge breach of Art. 24(1)(last sub§) on public participation requirements and of Art. 24((2, 3) on access to information

➤ Before which body:

- ✓ Court or another independent body established by law.
- ✓ Prior preliminary review before an administrative authority may be required by national law

XV.

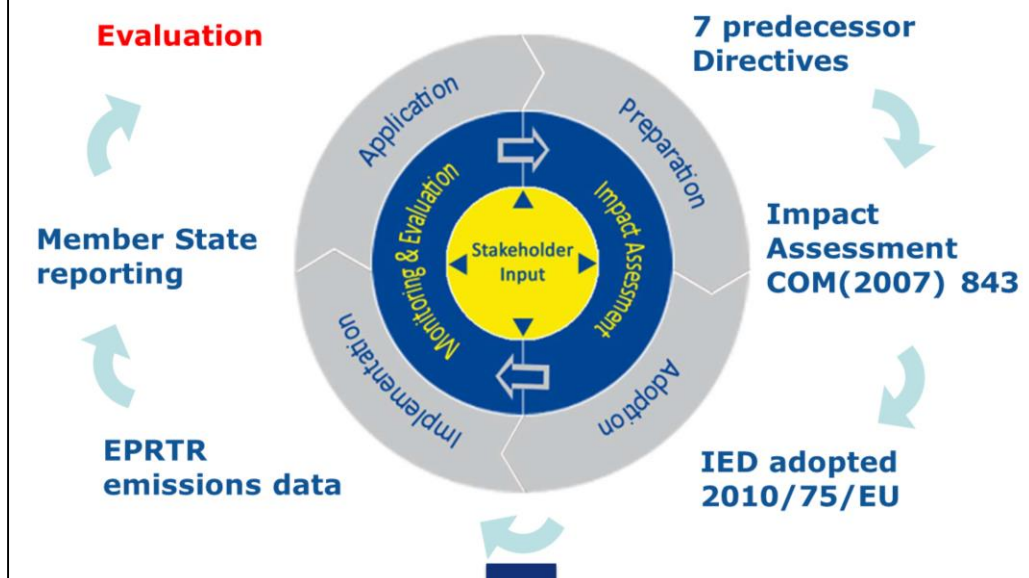
FUTURE OF THE IED

EVALUATION

Why?



IED Evaluation



Evidence-based judgement

- **Ex-post** - how (well) does the IED work?
- Assess performance versus initial objectives
- Gather a factual basis for assessment
- Assess:
 - What has happened?
 - Why has it happened?
 - How much has changed due to the IED?
 - What are intended / unintended effects?
- Evidence of causality
- Broad public and stakeholder consultation



IED initial objectives

Generic

- prevent, reduce and as far as possible eliminate pollution arising from industrial activities



Specific (from impact assessment)

- Increase legislative effectiveness by supporting MS to implement BAT based permitting
- Strengthen provisions on enforcement and environmental improvement, while stimulating innovation,
- Cutting unnecessary administrative burden and simplifying legislation,
- Better contribute to the objectives of the Thematic Strategies⁶⁰

Effectiveness:

- The extent to which the IED objectives have been achieved;
- The process of elaborating BREFs and BAT Conclusions;
- The emissions monitoring and reporting process.

Efficiency:

- The extent to which the costs are justified, given the impact of the IED and the benefits it has delivered;
- Whether there are significant differences between Member States in implementation;
- Whether efficiency could have been improved;
- The extent to which administrative burden has been reduced with respect to initial expectations.

Relevance:

- The extent to which the IED objectives still correspond to the needs of the EU;
- Whether the IED is able to respond to new or emerging environmental issues.

Coherence:

- The extent to which the IED is internally consistent and coherent;
- The extent to which the IED is coherent with other EU environmental and wider EU policies, and with market based instruments.

EU added value:

- What the added-value from the IED is, compared to what is likely to have been achieved by Member States in its absence.



The 5 criteria on the basis of which the IED is being assessed

When?



IED Evaluation

Evaluation process (indicative timing)

- Political validation ✓
- Roadmap published* ✓
- Comments assessed ✓
- 2019: Bulk of the process (in progress)
 - assistance from contractors
 - addressing evaluation questions
 - mid-2019: stakeholder consultations
- 2020: Dissemination & Follow-up

EVALUATION ROADMAP	
Roadmaps aim to inform citizens and stakeholders about the Commission's work to allow them to provide feedback and to participate effectively in future consultation activities. Citizens and stakeholders are to participate online to provide views on the Commission's understanding of the problem and possible solutions and to share any relevant information that they may have.	
TITLE OF THE EVALUATION	Evaluation of the Industrial Emissions Directive
LEAD DG – RESPONSIBLE UNIT	ENV, C.4 Industrial Emissions & Safety
INDICATIVE PLANNING (PLANNED START DATE AND COMPLETION DATE)	Q4 2018 and complete Q1 2020
ADDITIONAL INFORMATION	http://ec.europa.eu/environment/industry/evaluation/index.htm
The Roadmap is provided for information purposes only. It does not prejudice the final decision of the Commission as whether this initiative will be pursued or on its final content. All elements of the initiative described by the document, including its timing, are subject to change.	
A. Context, purpose and scope of the evaluation	
Context Directive 2010/75/EU on industrial emissions (the IED) controls the environmental impact of the around 50 000 largest industrial installations in an integrated manner to achieve a high level of protection of the environment taken as a whole. Various industrial sectors including for example the large and medium combustion plants, refineries, iron and steel manufacturing, waste treatment and incineration, or the intensive rearing of poultry and pigs, are in the scope of the IED. Permits must be issued for these installations by national authorities with conditions based on the use of best	



Commission Staff
Working Document

* https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2018-4758971_en

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*Thank you for your
attention!*