



**Improving existing institutional frameworks,
legislation and policy related to Emission Limit
Values (ELV) for industrial effluents, industrial
permitting and monitoring systems according to the
IPPC principles and CP concepts**

IPPC Seminar

October 2nd □ 3rd 2011 Rammallah



Integrated Pollution Prevention and Control

- **Environmental Legislation and Enforcement**
- **Implementation of the IPPC - requirements in Germany**
- **Scope: Installations Subject to Licensing**

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Implementation of the IPPC -requirements in Germany

1. The implementation took place in a multilevel system
2. Federal Immission Control Act (BImSchG)
3. Different Ordinances (under the regulatory regime of BImSchG)
4. General Administrative Regulations e.g.
 - Technical Instructions on Air Quality Control – *TA - Luft*
 - Technical Instructions on Noise Protection – *TA - Lärm*
5. Notices of the Federal Environment Ministry



Aim of the Federal Immission Control Act - BImSchG

Protection

and

Precaution

It is the purpose of this Act to protect human beings, animals and plants, soil, water, the atmosphere as well as cultural objects and other material goods against any harmful effects on the environment and to prevent the emergence of any such effects.



Aim of the Federal Immission Control Act - BImSchG

In the case of installations subject to licensing, the Act shall also

- **ensure integrated prevention and reduction** of any harmful effects on the environment caused by emissions to air, water and soil by securing the participation of the waste management sector in order to **achieve a high level of protection for the environment as a whole** and
- **ensure protection** and the **taking of precautions** against any hazards, significant disadvantages and significant nuisances caused in any other way.
- **Permit is necessary** for construction and operation of installations



Installations Subject to Licensing (§ 4 BImSchG)

- The **construction and operation of installations** which, on account of their nature or operation, are particularly likely to **cause any harmful effects on the environment** or otherwise endanger or cause any **significant disadvantages** or significant nuisances to the general public or the neighbourhood, **and the construction and operation of stationary waste disposal plants designed to store or treat wastes shall be subject to licensing.**
- the Federal Government specified by ordinance (4. BImSchV, annex), with the consent of the Länder (Bundesrat), those types of installations which require licensing (installations subject to licensing)
- Definition for installations which require licensing in IE- (IPPC-) Directive (EC)
 - installations whose potential for pollution is significant
 - installations which are likely to have significant negative environmental effects
 - IE-Directive, chapters III, IV, V, VI
 - Annex 1 IE-Directive; 88 categories of industrial activities



Obligations of Operators of Installations Subject to Licensing (§ 5 BImSchG) ¹

Installations subject to licensing shall be constructed and operated in such a way that, in order to ensure a high level of environmental protection altogether,

1. harmful effects on the environment or any other hazards, significant disadvantages and significant nuisances to the general public and the neighborhood are avoided (**duty to protect**)
2. precautions are taken to prevent any harmful effects on the environment or any other hazards, significant disadvantages or significant nuisances, in particular by such measures as are appropriate according to the best available techniques (**duty to precaution**)



Obligations of Operators of Installations Subject to Licensing (§ 5 BImSchG) ²

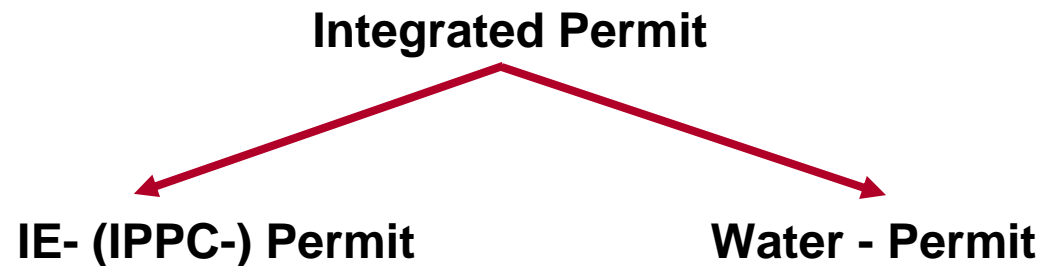
3. wastes are avoided, unavoidable wastes are recovered, and non-recoverable wastes are disposed of without impairing the public welfare; wastes shall be deemed to be unavoidable if avoidance is not technically feasible or not reasonable; avoidance shall be deemed to be inadmissible if it leads to more adverse effects on the environment than would be the case with the option of recovery; recovery and disposal of wastes shall be based on the provisions of the Closed Substance Cycle and Waste Management Act and on any other provisions applicable to wastes **(duty to avoid (1st step), recover (2nd) or dispose (3rd) waste)**
4. economical and efficient energy use is ensured **(duty for energy efficiency)**



Permitting Procedure - Permit (§§ 10 - 13 BImSchG)

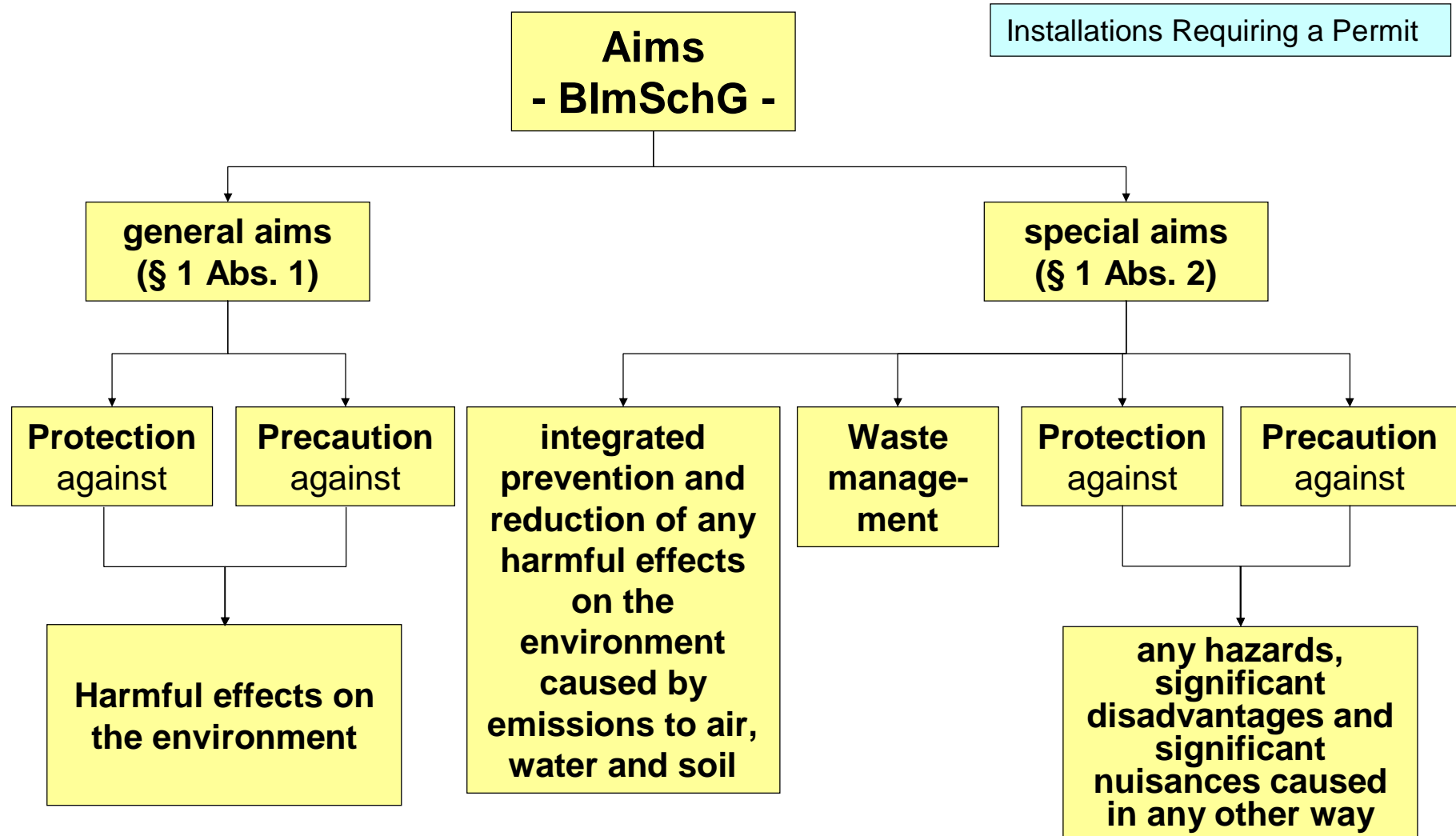
- Permitting authority has to check and to assess if all obligations of operators are fulfilled.
- Precondition for starting the permitting procedure is a complete **and** written application.
- The permit includes all necessary permits under public law related to the plant (permitting authority has to ensure it)
 - Exception:** *plan approvals, approvals of operation plans under mining law, official decisions based on the Atomic Energy Act and permits and authorisations under water law pursuant to Articles 7 and 8 of the Federal Water Act*
- Insofar as a permit in accordance with any other laws is required for the project itself, the permitting authority **has to ensure full coordination** of the permitting procedures as well as the substantive and collateral provisions

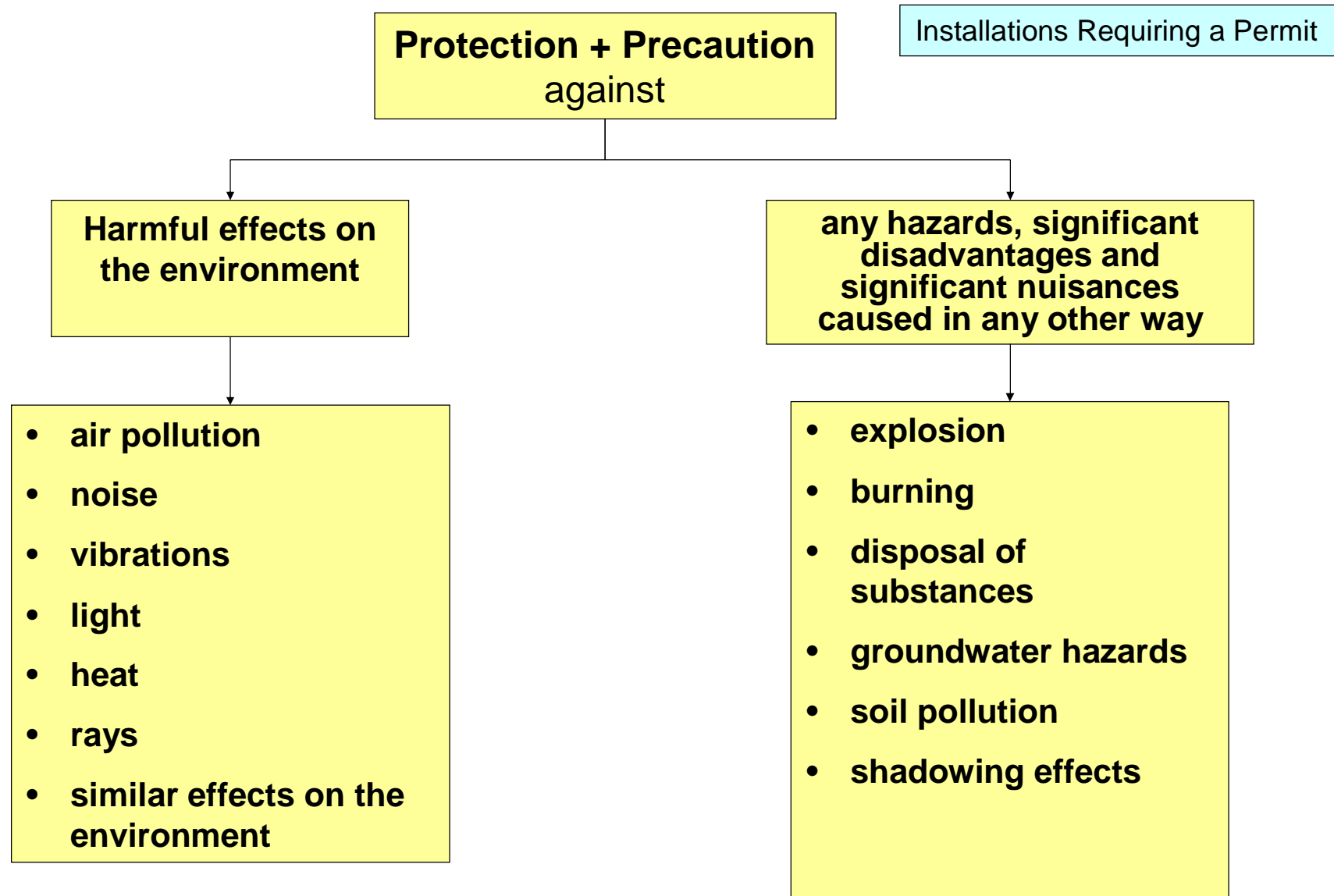
Coordination of permitting procedures

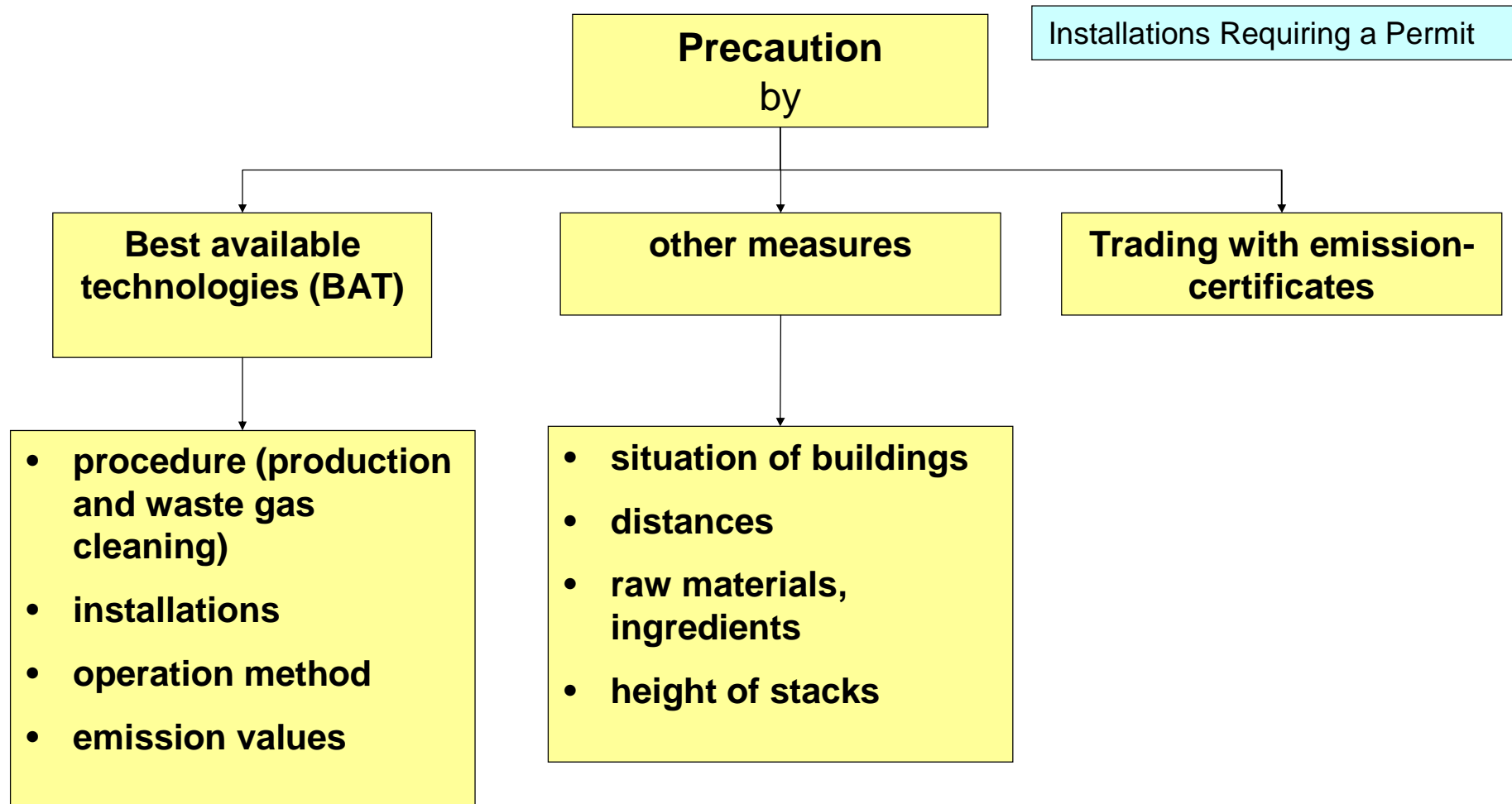


Current situation in Bavaria to fulfil the requirements >> 2 possibilities:

- 1 permitting authority, 2 different procedures ⇒ 2 permits
Coordination by:
 - ⇒ Information exchange (before application and during permitting procedure)
 - ⇒ As regards content and obligations permanent adjustment (EIA ...)
 - ⇒ Both permits are precondition to realize the project
- 2 permitting authorities, 2 different procedures ⇒ 1 permit
⇒ The superior authority will include the water- permit and issue only 1 common permit









Ordinance on Installations Requiring a Permit – 4. BImSchV

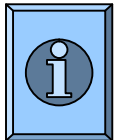
The need for a permit shall cover all planned:

- parts of installations or process stages which are required for the operation of the installations and
- auxiliary facilities associated with parts of installations and process stages according to sentence 1 in terms of location and operation
- several installations of the same kind are closely linked in terms of location and operation (common installation)
- If parts of an installation or auxiliary facility which require a permit themselves are linked to another installation, only one permit shall be required.
- If the increase in capacity of an existing installation leads for the first time to the exceedance of the capacity or size of the installation, for which a permit is required, the entire installation shall require a permit.



Ordinance on Installations Requiring a Permit – 4. BImSchV

- **Annex to 4. BImSchV contents all types of installations requiring an environmental permit**
- **The types of installations are split up into following chapters:**
 - Heat generation, mining, energy
 - Non-metallic minerals, glass, ceramics, construction materials
 - Steel, iron and other metals including their processing
 - Chemical products, pharmaceuticals, mineral oil refining and further processing
 - Surface treatment using organic substances, production of plastic sheets, other forms of processing resins and plastics
 - Wood, pulp
 - Food, beverages, tobacco and animal feed, agricultural products
 - Recovery and disposal of wastes and other materials
 - Storage, loading and un-loading of chemical compounds and preparations
 - Miscellaneous





Further Ordinances for Installations Requiring a Permit

- **Ordinance on Large Combustion Plants and Gas Turbine Plants**
(Thirteenth Ordinance on the Implementation of the Federal Immission Control Act – 13. BImSchV; corresponding to IE-D chapter III)

- **Ordinance on Waste Incineration and Co-Incineration**
(Seventeenth Ordinance on the Implementation of the Federal Immission Control Act - 17. BImSchV; corresponding to IE-D chapter IV)

- **Ordinance regarding the reduction of VOC emissions resulting from the use of organic solvents in specific installations**
(31st Ordinance on the Implementation of the Federal Immission Control Act - 31. BImSchV; corresponding to IE-D chapter V)

- **Must be adjusted to get in compliance with IE-Directive (07. January 2013)**



First general administrative regulation to the Federal Immission Control Act (Technical Instructions for Air Quality Control – *TA Luft*)

- Shall be observed when examining applications for a permit to build and operate a new facility as well as to alter the location, nature or operation of an existing facility,
- The requirements concerning emission control shall not apply to installations subject to licensing insofar as requirements are made to the prevention and to the determination of emissions of air pollutants in Ordinances issued by the Federal Government
- Binding for all IE- (IPPC-) installations, except LCP, VOC and (co-) incineration of waste



Structure of the Technical Instructions for Air Quality Control – *TA Luft*)

- Scope of Application
- Definitions of Terms and Units of Measurement
- General Principles for Licensing, Preliminary Decisions and Permissions for Early Start
- Requirements for the Protection against Harmful Effects on the Environment
 - Protection of Human Health
 - Protection of Vegetation and of Ecosystems
 - Determination of Immission Indicators
 - Observation of Immission Values



Structure of the Technical Instructions for Air Quality Control – *TA Luft*)

- Requirements to Provide Precautions against Harmful Effects on the Environment – Emission Values
 - General Requirements to Emission Limits
 - Measuring and Monitoring Emissions
 - Special Provisions for Certain Types of Facilities
 - 10 categories like
 - Heat Production, Mining, Energy
 - Cement, Glass, Ceramics and Building Materials
 - Steel, Iron and Other Metals, including their Processing
 - Chemical Products, Drugs, Refining and Processing of Mineral Oil
 -
- Waste Gas Disposal
- Subsequent orders



Structure of the Technical Instructions for Air Quality Control – *TA Luft*)

- Guarantee that emission levels are in compliance with BAT?
 - Advisory committee is established by the Federal Environment Ministry
 - expert representatives of the parties concerned
 - Every new BREF will be checked in comparison with existing requirements
 - Advisory committee will give advise to the Federal Environment Ministry
 - The Federal Environment Ministry will publish the new requirements

- Advantage
 - BREF documents must not be checked by the competent authority in every permitting procedure
 - In every permitting procedure comparable obligations to the operators will be issued
 - Emission limit values are not subject of individual assessment



Supervision of Installations Requiring a Permit 1

Federal Immission Control Act - BImSchG

Article 26 Measurements Taken for Special Reasons (Emission and Immission)

Article 28 Initial and Recurrent Measurements in the Case of Installations Subject to Licensing (Emission and Immission)

Article 29 Continuous Measurements (Emission and Immission)

Article 29a Orders Regarding Safety Checks

Article 30 Costs of measurements and Safety Checks

The costs for the determination of emissions and immissions as well as for the safety checks shall be borne by the operator of the installation.

Article 31 Information regarding emissions and immissions measured



Supervision of Installations Requiring a Permit 2

Federal Immission Control Act - BImSchG

Article 52 Supervision

- **The competent authorities shall supervise the implementation of this Act and of any ordinance issued hereunder.**
- **Regular review of any licenses as defined in at regular intervals and, where necessary, update them by means of subsequent orders pursuant to Article 17**

Article 62 Administrative Offences

- **Administrative Offences class 1: payment of a fine up to 50.000 €**
- **Administrative Offences class 2: payment of a fine up to 10.000 €**
- **Notice: Operating an installation without license required means criminal offense in Germany (§ 327 StGB)**



***Thank you very much for
your attention!***



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your attention!***



Item „Installations“

“Installations” as used herein shall mean:

- any operating plants and other stationary facilities, especially IE-, (IPPC-) installations
- any machines, equipment and other non-stationary technical facilities as well as vehicles and craft unless they are subject to the provisions of Article 38 below and
- any premises used to store or deposit materials or to carry out work likely to cause emissions, with the exception of routes used for public transport.

The following text of the Fourth Ordinance for the Implementation of the Federal Immission Control Act (Ordinance on Installations Requiring a Permit – 4. BImSchV) is a legally non-binding version. Legally binding is only the latest version resulting from the Federal Law Gazette (Bundesgesetzblatt).

**Fourth Ordinance
for the Implementation of the Federal Immission Control Act
(Ordinance on Installations Requiring a Permit – 4. BImSchV)**

of 24 July 1985 (Federal Law Gazette I (1985), p. 1586),
in the version of the announcement from 14 March 1997 (Federal Law Gazette I (1997), p. 564),
as last amended by the "Artikelgesetz" of 6 January 2004 (Federal Law Gazette I (2004), p. 2, 19)

(4. BImSchV – Verordnung über genehmigungsbedürftige Anlagen)

Article 1

Installations requiring a permit

(1) The construction and operation of installations listed in the Annex shall require a permit if it is to be expected according to existing circumstances that they are to be operated on the same site for longer than twelve months following the date of commissioning. Sentence 1 shall also apply to installations listed under category 8 of the Annex, except installations for treatment at source if they are to be operated at the same site for less than twelve months following the date of commissioning. For the installations listed under categories 2.9, 2.10 column 2, 7.4, 7.5, 7.25, 7.28, 9.1, from 9.3 to 9.8 and from 9.11 to 9.35 in the Annex, sentence 1 shall apply only if they are operated for commercial purposes or are used within the framework of commercial undertakings. If the need for a permit for the installations listed in the Annex is dependent on a certain capacity or size of installation being reached or exceeded, the legally and technically possible operational capacity shall be used as a basis.

(2) The need for a permit shall cover all planned

1. parts of installations or process stages which are required for the operation of the installations and
2. auxiliary facilities associated with parts of installations and process stages according to sentence 1 in terms of location and operation which may be relevant to
 - a) the occurrence of harmful environmental impacts
 - b) precaution against harmful environmental impacts or

c) the occurrence of other risks, significant drawbacks or significant disturbances.

(3) The prerequisites defined in the Annex shall also be given where several installations of the same kind are closely linked in terms of location and operation (common installation) and, in total, they reach or exceed the specified installation capacities or sizes. Installations are closely linked in terms of location and operation if they are

1. situated on the same site,
2. linked to common operation facilities and
3. have a comparable technical purpose

(4) If parts of an installation or auxiliary facility which require a permit themselves are linked to another installation, only one permit shall be required.

(5) If the increase in capacity of an existing installation leads for the first time to the exceedance of the capacity or size of the installation, for which a permit is required, the entire installation shall require a permit.

(6) Installations shall not require a permit if their purpose is research, development or testing of new raw materials, fuels, products or processes at laboratory or pilot installation scale, this includes such installations at laboratory or pilot installation scale in which new products are produced in a quantity required for their testing by a third party before market launch if the new products are to be further investigated or developed.

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