Environmental Administration and Legislation

Mikkeli University
of Applied Sciences
Autumn 2016

REVISION

What did you learn last week?

To begin at the beginning…

The environmental impact assessment must identify the direct and indirect effects of a project on:

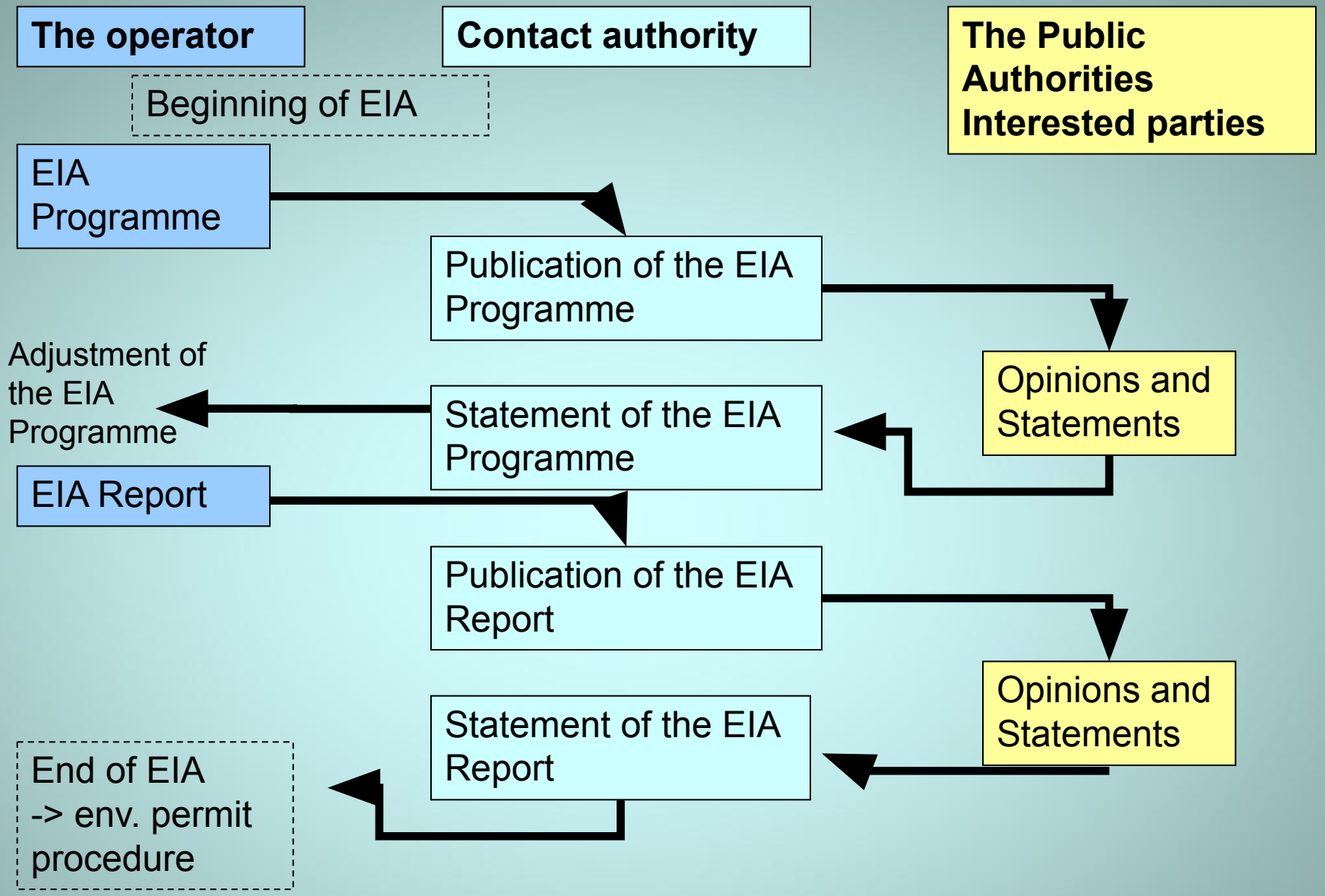
- man, the fauna and the flora,
- the soil, water, air, the climate,
- the landscape, the material assets and cultural heritage
- and the interaction between these various elements.

Projects

An assessment is obligatory for certain projects:

- dangerous industrial facilities such as oil refineries, nuclear fuel or nuclear waste treatment facilities, integrated chemical installations;
- power stations of more than 300 megawatts or nuclear power stations;
- transport infrastructure such as railways, airports, motorways, inland waterways and ports when the infrastructure exceeds certain specific thresholds;
- waste and water treatment facilities;
- large mining facilities (large quarries, large gas or oil rigs);
- water transport or storage facilities, and dams;
- installations for the intensive rearing of poultry or pigs which exceed certain specific thresholds.

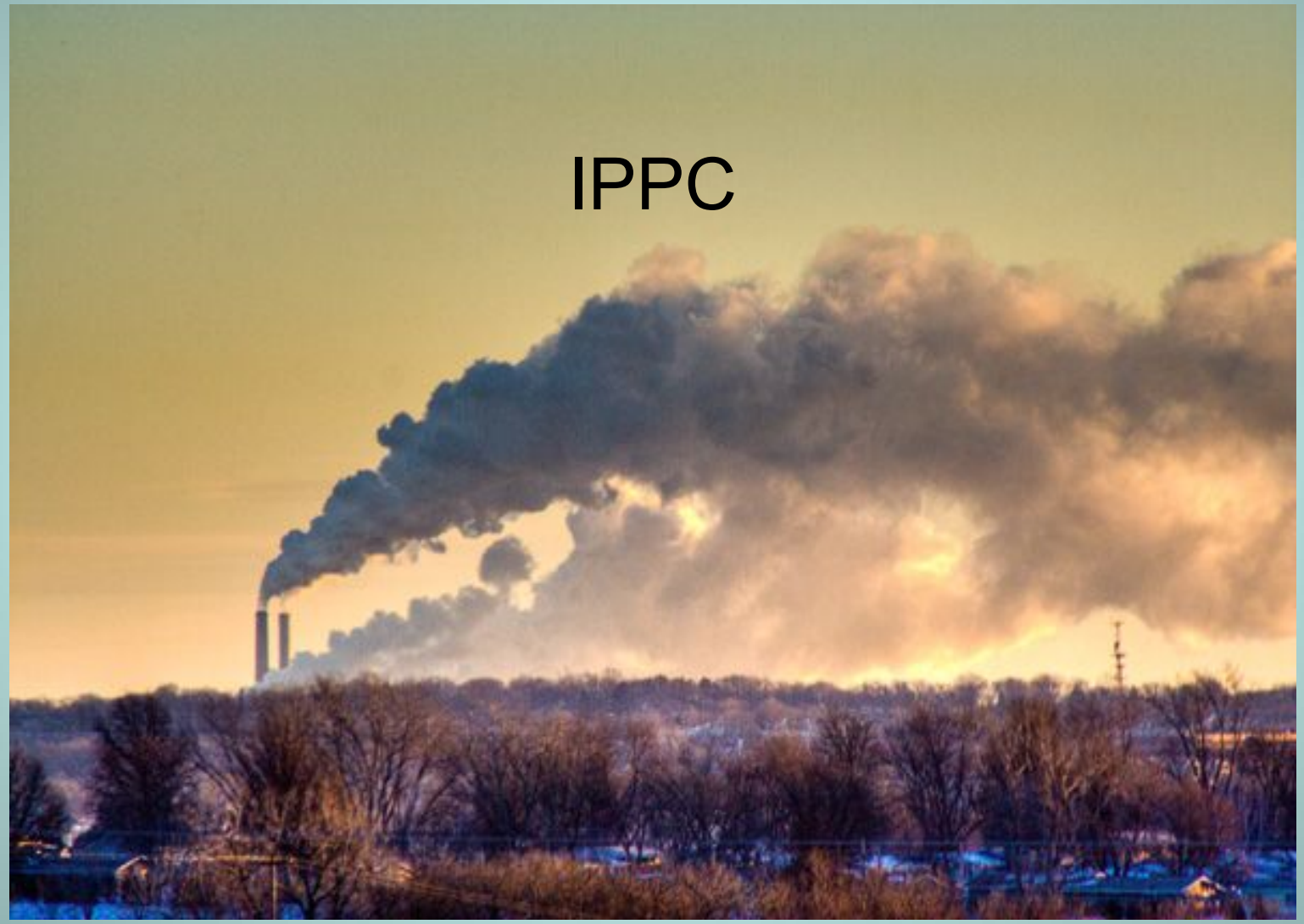
Look for a list in ANNEX II of the directive (and in relevant national legislation)!


The operator
Contact authority
The Public Authorities Interested parties
Beginning of EIA
EIA Programme
Publication of the EIA Programme
Opinions and Statements
Adjustment of the EIA Programme
Statement of the EIA Programme
EIA Report
Publication of the EIA Report
Opinions and Statements
Statement of the EIA Report
End of EIA -> env. permit procedure

Project Participation Opportunities

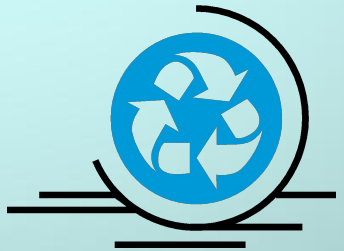
1. Participation opportunity at EIA – programme stage
2. Participation opportunity at EIA –report stage
3. Opinions/ statements on Environmental Permit decision
4. Appeal on Environmental Permit decision

IPPC



- Prevention of discharge of harmfull substances
- Controlling activities leading to specific risks

→ IPPC



Directive 2008/1/EC (2008) concerning integrated pollution prevention and control

- "The IPPC Directive" requires activities with a high pollution potential to have a permit.
- Combines elements of separate environmental media related permitting procedures (water, waste…)
- Environmental permit can only be issued if certain environmental conditions are met, so that the companies themselves bear responsibility for preventing and reducing any pollution they may cause.
- Information on environmental performance must be made available to interested parties
- International environmental agreements?

Industrial emissions IPPC directive

- Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control).
  - Similar obligations as the IPPC Directive
  - Replaced the with effect from 7 January 2014 Directive 2008/1/EC concerning integrated pollution prevention and control
- covers industrial activities with a major pollution potential

Categories of activities

- Energy industries
- Production and processing of metals
- Mineral industry
- Chemical industry
- Waste management
- Other activities, e.g. industrial production of pulp, tanning of hides…

With special provisions for

- combustion plants (≥ 50 MW);
- waste incineration or co-incineration plants;
- certain installations and activities using organic solvents;
- installations producing titanium dioxide.

IE Directive

"To control industrial emissions, the EU has developed a general framework based on integrated permitting. This means the permits must take account of a plant's complete environmental performance to avoid pollution being shifted from one medium - such as air, water and land - to another.

Priority should be given to preventing pollution by intervening at source and ensuring prudent use and management of natural resources."

IPPC obligations*

All installations covered by the directive must prevent and reduce pollution by applying the best available techniques (BATs), efficient energy use, waste prevention and management and measures to prevent accidents and limit their consequences.

The installations can only operate if in possession of a permit and have to comply with the conditions set therein.

IPPC obligations*

The BAT conclusions are the reference for setting the permit conditions.

Emission limit values must be set at a level that ensures pollutant emissions do not exceed the levels associated with the use of BATs. However they may, if it is proven that this would lead to disproportionate costs compared to environmental benefits.

IPPC obligations*

- Competent authorities need to conduct regular inspections of the installations.
- The public must be given an early opportunity to participate in the permitting process.

Environmental Permit

Legislative Instruments

A permit is a powerfull tool for execution of environmental legislation – without the permit the operator is not allowed to operate and by applying for the permit he subjects the operation to assessment by the authorities and the public.

Other permits, reminder

Besides the IPPC (environmental) permit, there are other permit procedures in environmental legislation as well:

- Nature conservation permits
- Water legislation permits
- Land extraction permits
- Building permits
- Transfrontier shipments of waste…

IPPC permit includes*

- emission limit values for polluting substances
  - listed in Annex II;
- any soil, water and air protection measures required;
- waste management measures;
- measures to be taken in exceptional circumstances;

IPPC permit includes*

- requirements concerning the maintenance and surveillance of soil and groundwater;
- minimisation of long-distance or transboundary pollution;
- emission monitoring; requirements concerning emission measurement methodology, frequency and evaluation procedure;

IPPC permit includes*

- an obligation to inform the competent authority of the results of monitoring, at least annually
- conditions for assessing compliance with the emission limit values.
- all other appropriate measures.

Who needs a permit?

Environmental Permits: Finland

According to Finland's environmental protection legislation, permits are needed for all activities involving the risk of pollution of the air and water or contaminating the soil. One important condition for permits is that emissions are limited to the levels obtainable by using Best Available Techniques (BAT).

Environmental Protection Act includes a list of activities that need an environmental permit.

Environmental Permits: Finland

Environmental Protection Act includes a list of activities that need an environmental permit:

1. Energy industries
2. Production and processing of metals
3. Mineral industry
4. Chemical industry
5. Waste management
6. Other activities

Environmental Permits: Finland

In addition to those, the relevant authority may- after consideration – require a permit from other activities that (e.g.)

- may cause pollution of a water body,
- referred activities that may place an unreasonable burden on the surroundings, referred to in section 17(1) of the Adjoining Properties Act (26/1920);
- treatment of waste on a professional basis or at an installation, within the scope of application of the Waste Act;
- test drilling for oil or gas, the exploitation of a deposit and other related activities in Finnish territorial waters and in Finland's exclusive economic zone.

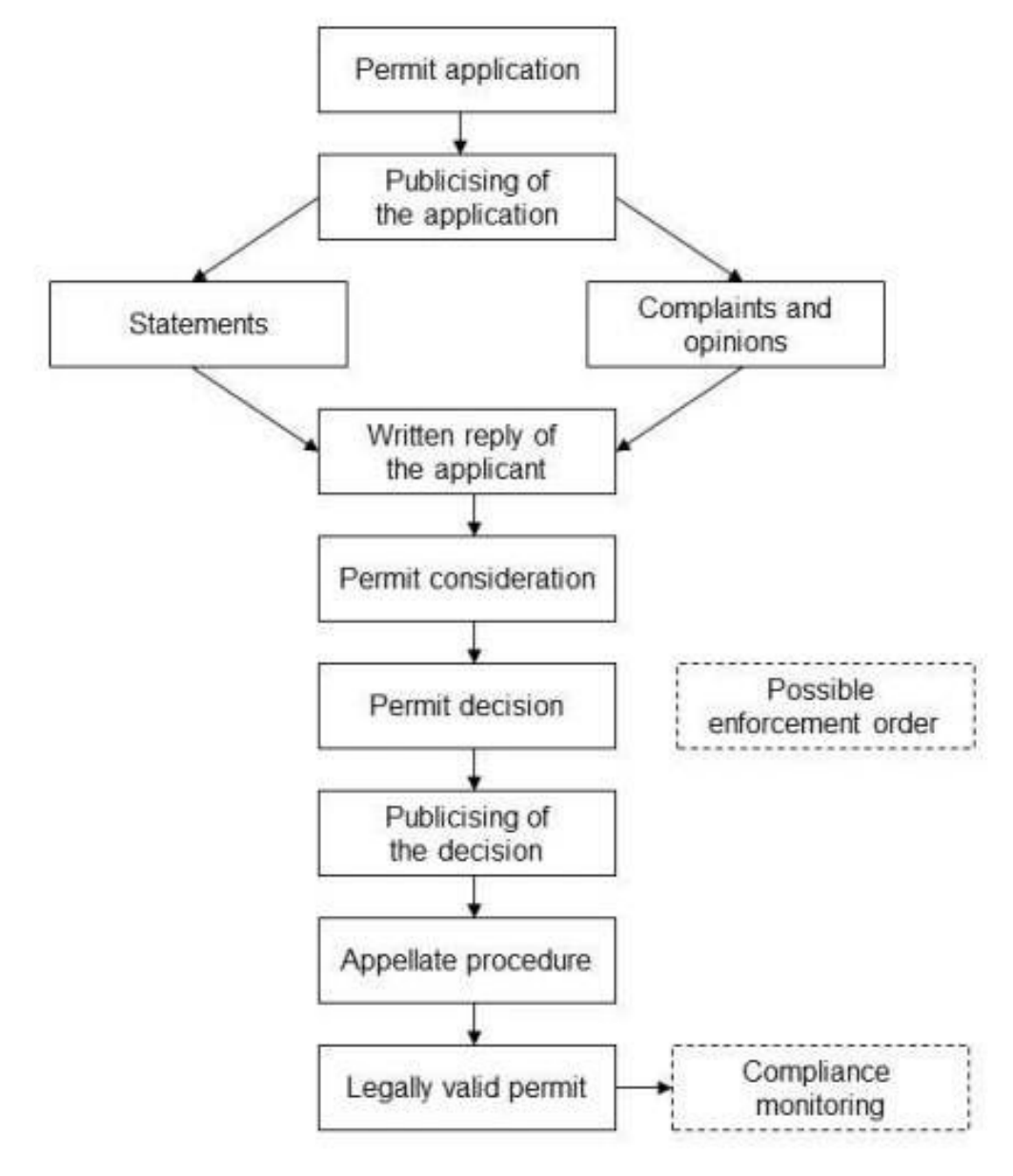
IPPC permits

- E.g. in Finland the permit procedure and the contents of a permit are desrcibed in the Environmental Protection Act.
- Permits are issued by environmental authorities, as also described in the Environmental Protection Act
- Authorities monitor compliance with the permit requirements.

Environmental Permits: Finland

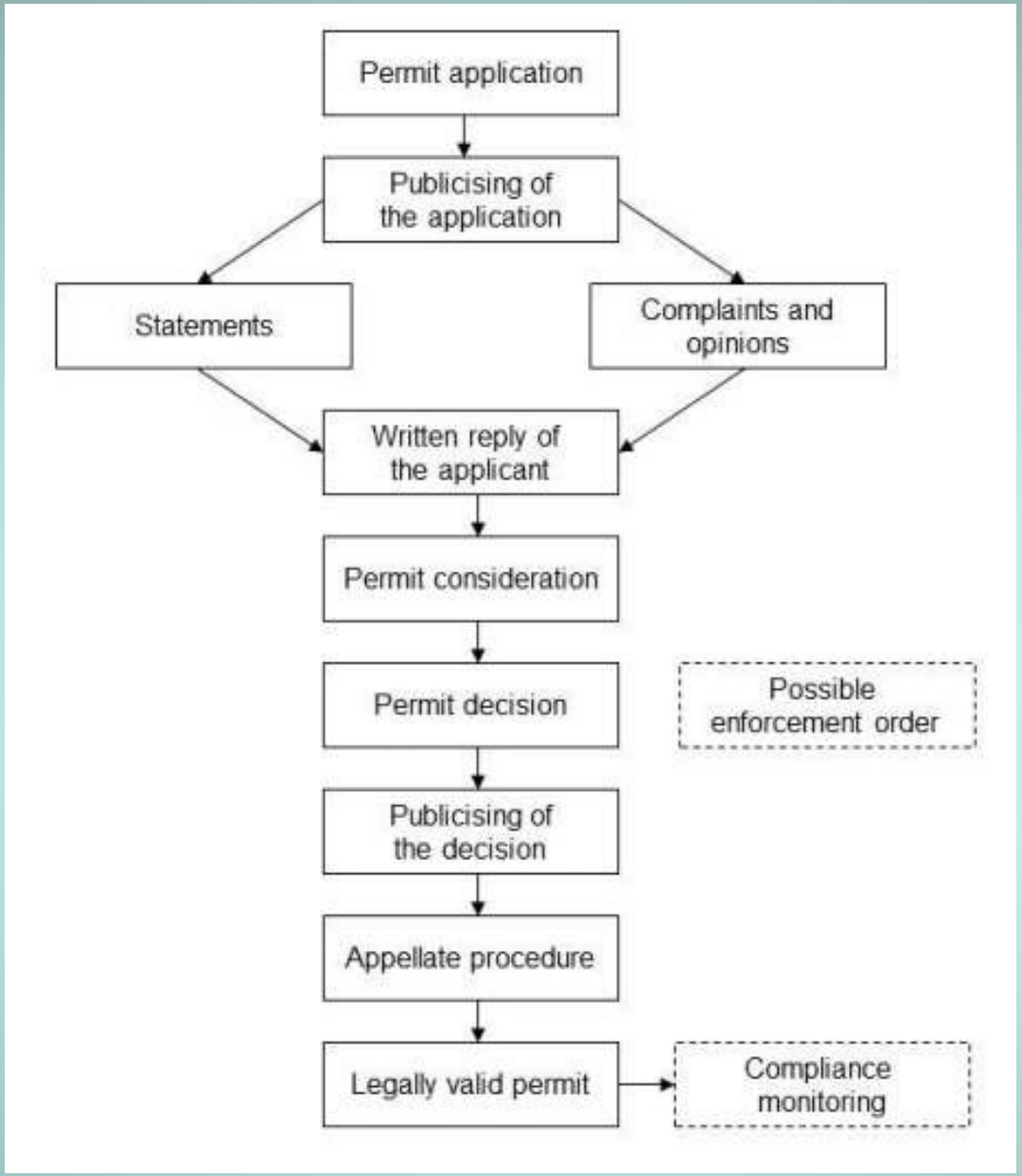
Applications must be made to the relevant authority, as defined in the Environmental Protection Act and Decree.

Reminder: Permit authority and supervising authority



The use of BAT must be considered, when deciding on the permit, More about defining BAT later...

IPPC
Permit Procedure and Public Participation
Finland as example


Permit application
Publicising of the application
Statements
Complaints and opinions
Written reply of the applicant
Permit consideration
Permit decision
Possible enforcement order
Publicising of the decision
Appellate procedure
Legally valid permit
Compliance monitoring

1. Permit application*

- Applications must be made in writing to the competent authority, as defined in the Environmental Protection Act and Decree.

Why in writing?

- Prior to environmental permit application EIA (when applicable) must be completed!

Content of the application

1) the name and contact details of the applicant plus the name, business sector and location of the facilities concerned;

2) details of the property and the facilities and activities located thereon plus the proprietors of said facilities;

Content of the application

3) a general description of the activities concerned;

4) information on output, processes, equipment, structures and their location which is relevant to consideration of the application;

5) information on the location of activities and local environmental conditions;

Content of the application

6) information on the quality and quantity of discharges into water, air and soil and on noise and vibration caused by the activities;

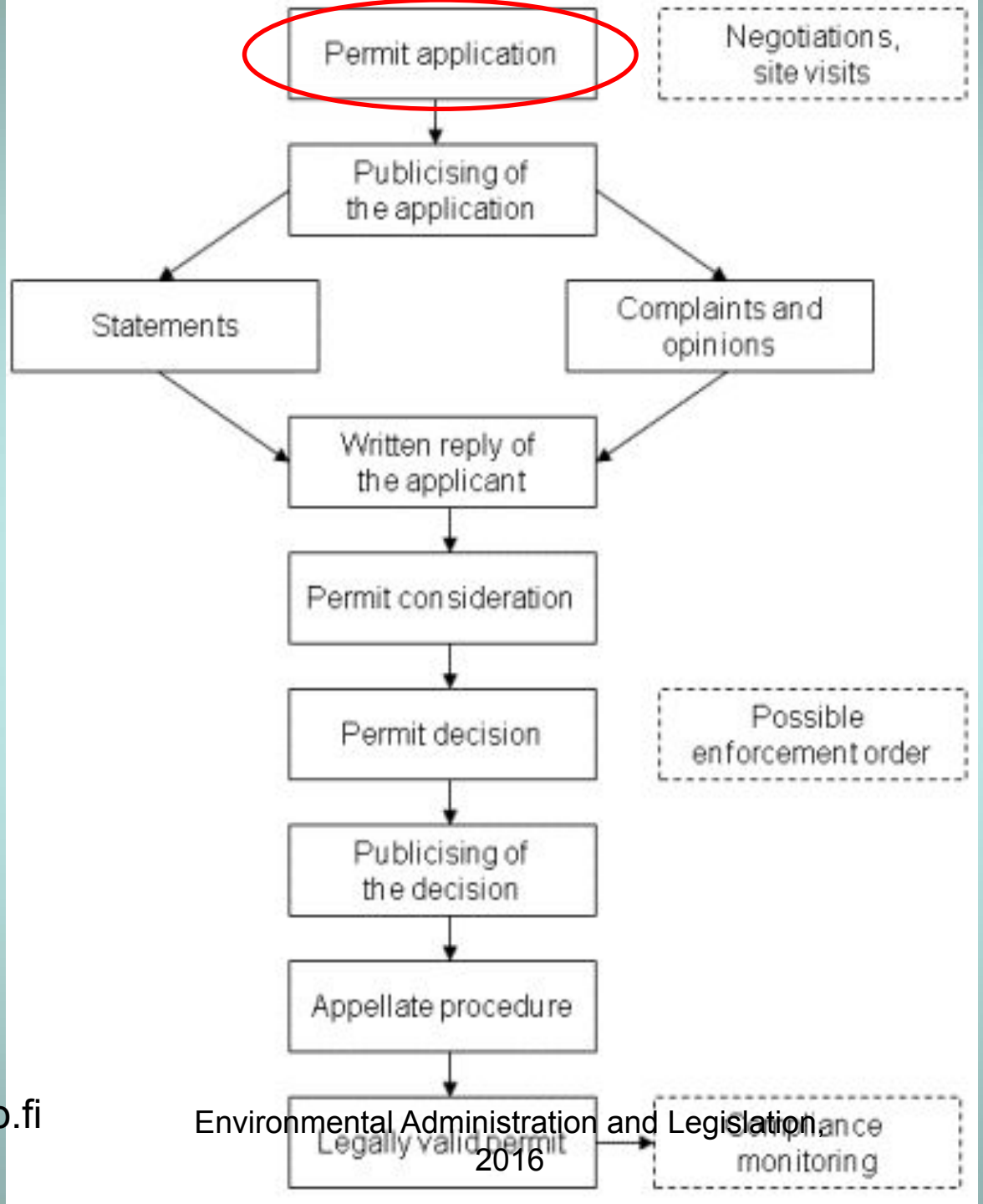
7) information on the types, quantities and properties of waste generated by the activities;

8) an assessment of the environmental impacts of the activities;

Content of the application

9) the scheduled date for the commencement of activities; note: it is possible to apply for permission to commence regardless of appeals!

10) an account of the immediate neighbours bordering on the site of the activities and any other interested parties who could be especially affected by the activities and their effects.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Negotiations, site visits
Publicising of the application
Statements
Complaints and opinions
Written reply of the applicant
Permit consideration
Permit decision
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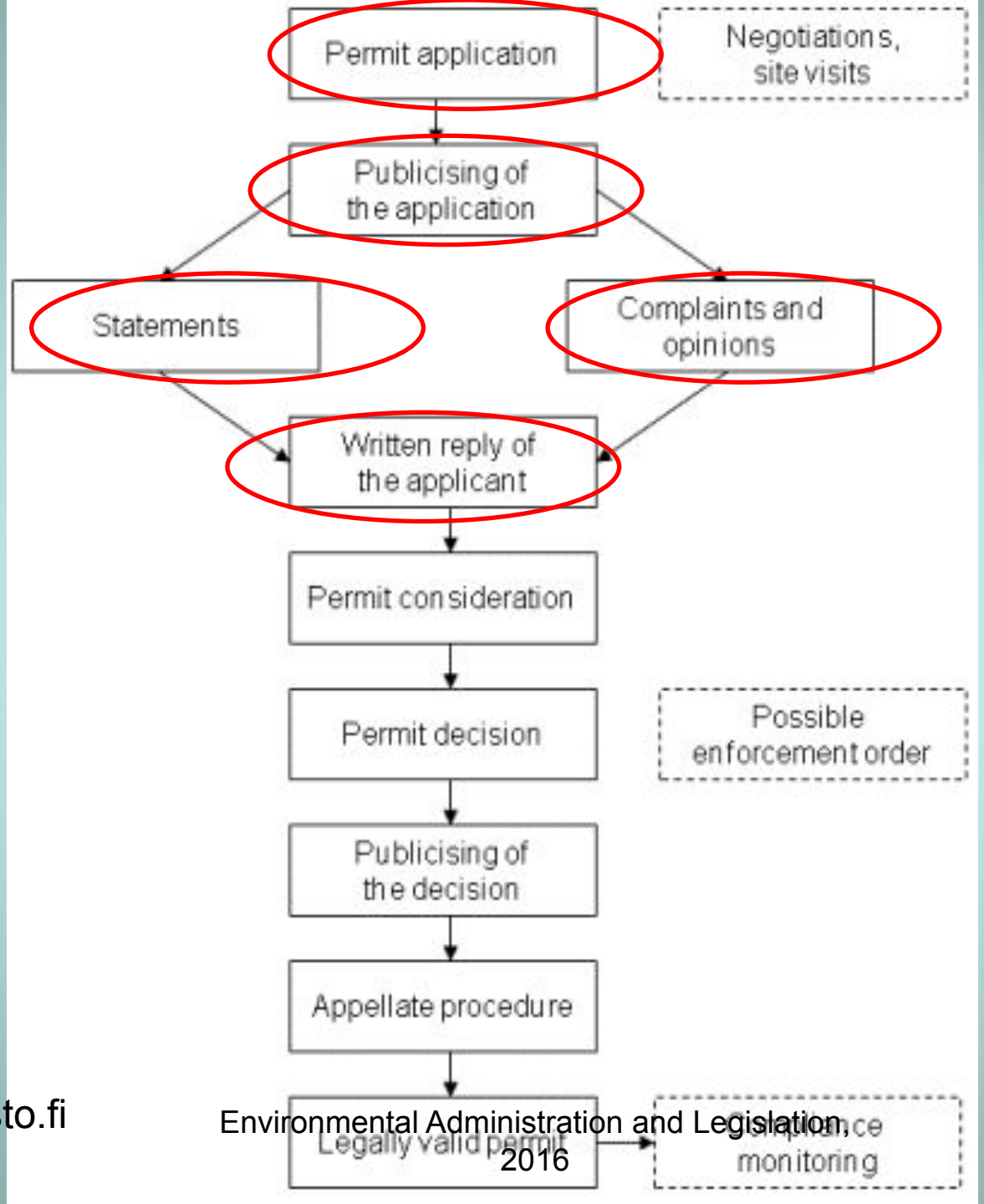
Publicising of the decision
Appellate procedure
Legally valid permit
monitoring

2. Publicising of the application*

- The authority must make application public!
- The authority asks for statements from relevant parties and gathers opinions and statements

3. Written reply*

The operator is given the possibility to reply to the given statements and opinions in order to affect how the authority will consider them in “permit consideration”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4. Permit consideration*

The authority must consider

- the permit application – the actual activity
  - Including assessment of BAT!
- the given statements and opinions
- reply given by the operator
- relevant <u>environmental</u> legislation
  - Including land use planning and EIA!

Env Protection Act: Chapter 7 - Permit consideration

4. Permit consideration*

Env Protection Act: Preconditions for granting a permit

"Granting a permit requires that the activity, severally or together with other activities, **does not**, taking permit regulations and the location of the activity into account, **result in:**

1) harm to health;

2) other significant environmental pollution or risk thereof;

3) a consequence prohibited in sections 7-9;

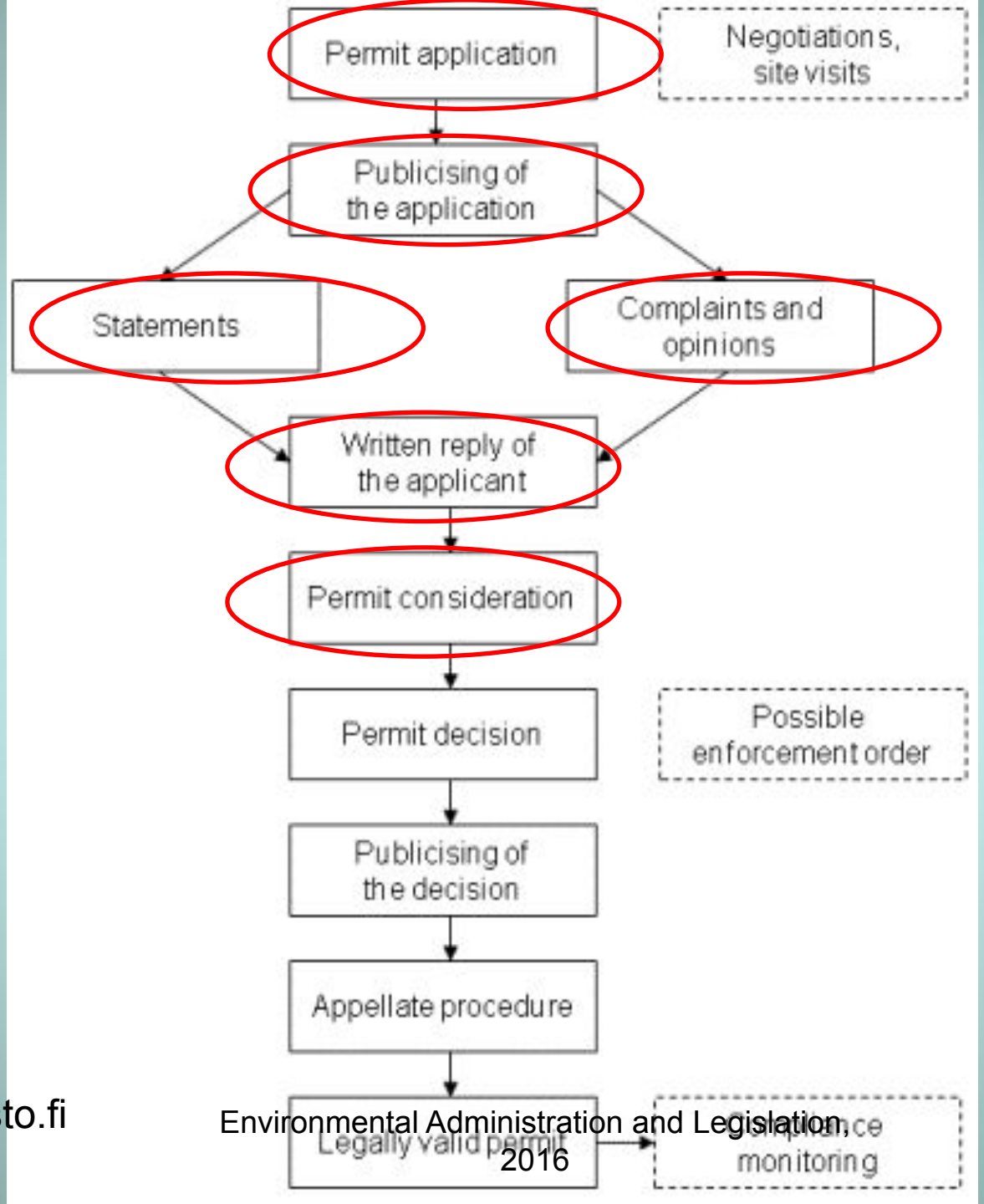
4. Permit consideration*

4) deterioration of special natural conditions or risk to water supply or other potential use important to the public interest in the activity's area of impact;

5) an unreasonable burden referred to in section 17(1), of the Adjoining Properties Act.

Activities may not be located in conflict with a detailed local plan. In addition, the provisions of section 6 apply to location.

Operators engaged in the disposal of waste shall possess expertise that is sufficient considering the type and extent of the activities.”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5. Permit decision*

- Permits are granted if the preconditions are met.
- Possible enforcement orders!
  - can be made where there is imminent risk of irreparable environmental damage.
- Must show how EIA (if applicable) has been implemented

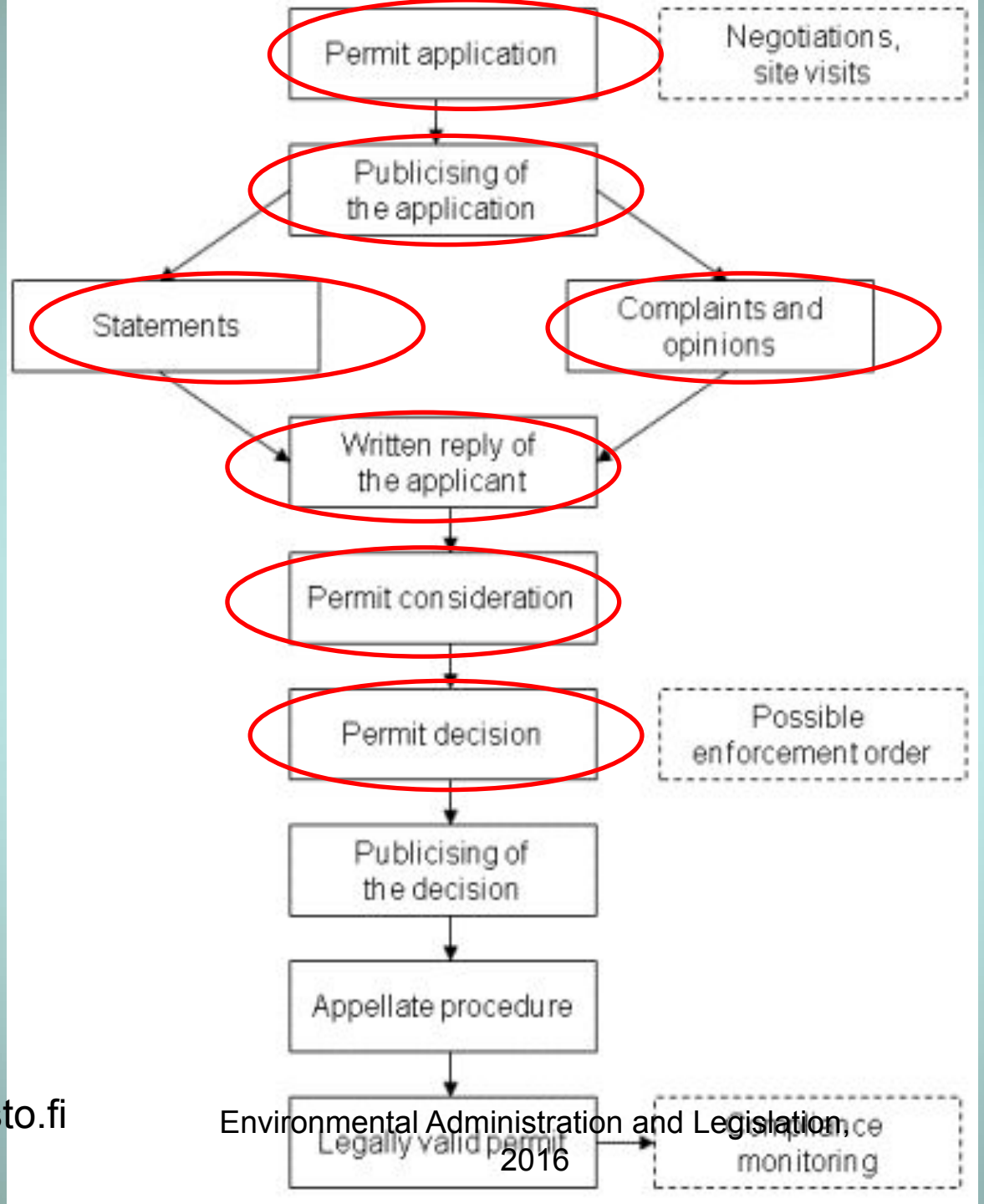
5. Permit decision*

Env Protection Act: ***Chapter 8- Permit decisions Contents of a permit decision***

- **Time of validity** *"Depending on the matter concerned, environmental permits are issued either until further notice or for a fixed period."*
- **Grounds for the decision** "*The grounds and justification of the ruling shall be indicated in the permit decision. The decision must respond to separate demands made in opinions and complaints."*
- **EIA:** "*When the Act on Environmental Impact Assessment Procedure is applied to a project, the permit decision must indicate how the assessment has been taken into account in the permit decision..."*
- **Details:** "*More detailed provisions concerning the content of permit decisions are issued by decree."*

5. Permit decision*

- ***Permit regulations*** *for the purpose of preventing pollution*
- *Monitoring and supervision regulations*
- *Regulations concerning emissions into a sewer*
- *Impact of certain plans and programmes*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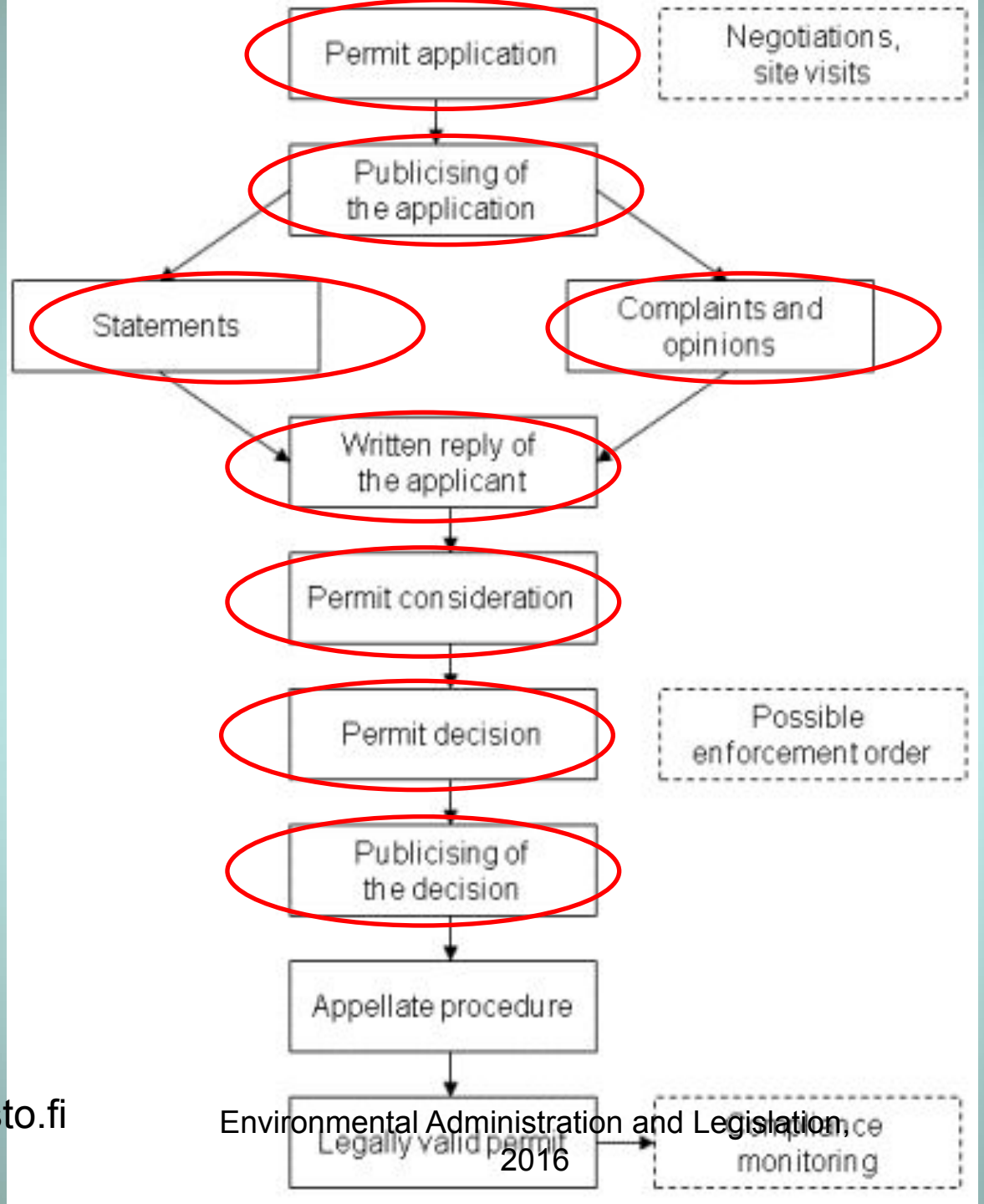
6. Publicising of the permit decision*

- Again, the decision must be made available to all interested parties
- Who is an “interested party”?
  - *Why is it made public?*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7. Apellate procedure*

- Definition of interested party is important, since only the “interested party” has the right of appeal!
- Appeals on environmental permit decisions in Finland are made to the Administrative Court of Vaasa, then to the Supreme Administrative Court within 30 days!

8. Legally valid permit*

- After the appellate procedure or – if there are no appeals – after the appellate time the permit becomes legally valid and binding.
- Environmental impacts of the activity in question are managed via the permit requirements -> authorities monitor compliance
- There is a fee for the permit decision!

This should not be confused with penalty fees! It is a fee for the processing of the permit application.

Validity of Environmental Permit

Validity of Environmental Permit*

Permits are granted for a fixed period or until further notice

- A permit granted for a fixed period expires when the period ends.
- Permits granted until further notice must set the date by which an application for the review of permit regulations must be made and specify any reports that must be submitted in that connection unless such an order is deemed manifestly unnecessary.

Lapsing of a permit

- The authority granting a permit may decide that the permit lapses if:
  - the activity has been **suspended for at least five** consecutive years, or the operator reports that the activity will not be started or that it has been discontinued permanently;
  - the activity or measures essential to its initiation **have not been started** or taken within five years of the permit becoming legally valid, or within a longer period stipulated in the permit; or
  - the **application to review permit regulations** has not been made.
- The case must be processed similarly to a permit application.
- The case may be initiated by the permit authority on its own initiative, a supervisory authority, operator, municipality or party suffering harm.

Amending a permit

On application by the permit holder, supervisory authority, the relevant authority protecting the public good or a party suffering harm, the authority that granted the permit shall amend it if:

- the pollution or risk thereof caused by the activity is **substantially different** than was expected;
- the activity has **a consequence prohibited** in this Act;
- **emissions may be reduced considerably** without undue cost due to advances in best available technology;

-the grounds for a permit condition are found to be incorrect and amending the condition does not create the need to reconsider the preconditions for granting the permit; (588/2011)

-circumstances have changed substantially since the granting of the permit; or

-it is necessary for the observation of provisions issued for the purpose of fulfilling an international obligation binding on Finland.

Revoking a permit

On the initiative of the supervisory authority the authority granting the permit may revoke it if:

- the applicant has provided erroneous information that is material to the preconditions for granting the permit;
- permit regulations have been violated repeatedly despite a written reminder from the supervisory authority so that the activity poses a risk of environmental pollution; or
- preconditions for continuing the activity cannot be met by amending the permit in accordance with section 58.

The case shall be processed similarly to a permit application, as appropriate.

BAT

BAT- history

- Concept of BAT first used in the UK “Salmon Fishery Act 1861”
- *Best available techniques not entailing excessive costs (BATNEEC)* introduced with the 1984 Air Framework Directive (AFD)
- In the US similar concept found in the CWA and CAA
- Included in the first IPPC directive (96/61/EC)

BAT

"The most effective and advanced stage in the development of activities and their methods of operation which indicate the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole"

… to ”break it down”

- "techniques" shall include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned,
- "available" techniques shall mean those developed on a scale which allows implementation, under economically and technically viable conditions,
- "best" shall mean most effective in achieving a high general level of protection of the environment as a whole.

Who determines what is good enough?

- The European IPPC Bureau produces reference documents on BAT, called BREFs.
- BREFs are the main reference documents used by competent authorities in Member States when issuing operating permits for the installations that represent a significant pollution potential in Europe.

Who determines what is good enough?

BAT information exchange is carried out by national technical working groups (BAT working groups), which are composed of representatives from industry and permit authorities and inspectors

- the group chair acts as the national member in the corresponding Technical Working Group (TWG) at EU level information exchange.

Who determines what is good enough?

- National BAT Working Groups comment on draft BREFs prepared by the EIPPCB and gather other relevant background information.
- Results of National BAT information exchange for different industrial sectors are published as National BAT technology reports and many of them have been sent for background information for BREF's preparation.

IPPC Bureau

The European Integrated Pollution Prevention and Control Bureau was set up to organise an exchange of information between Member States and industry on BAT, associated monitoring and developments in them.

“Where the competent authority sets permit conditions on the basis of a best available technique not described in any of the relevant BAT conclusions, it shall ensure that technique is determined by giving special consideration to the criteria listed in Annex III…”

Criteria for determining best available techniques

1. the use of low-waste technology;
2. the use of less hazardous substances;
3. the furthering of recovery and recycling of substances generated and used in the process and of waste, where appropriate;

Criteria for determining best available techniques

4. comparable processes, facilities or methods of operation which have been tried with success on an industrial scale;

5. technological advances and changes in scientific knowledge and understanding;

6. the nature, effects and volume of the emissions concerned;

Criteria for determining best available techniques

7. the commissioning dates for new or existing installations;

8. the length of time needed to introduce the best available technique;

9. the consumption and nature of raw materials (including water) used in the process and energy efficiency;

Criteria for determining best available techniques

10. the need to prevent or reduce to a minimum the overall impact of the emissions on the environment and the risks to it;

11. the need to prevent accidents and to minimise the consequences for the environment;

12. information published by public international organisations.

BAT SELECTION

The selection of Best Available Techniques consists in finding the appropriate balance between environmental performance and technical and economical availability.

This balance depends on a number of parameters, such as the projects environmental requirements and goals, technical constraints, stakeholders expectations and the economic viability of the project.

Practical definition of BAT

1. Scope and identify the alternative techniques under consideration - refer to the BREF(s), relevant site-specific factors, techniques not covered by BREF.
2. Compile an inventory of emissions and resource use for each option - significant emissions/resource use, synergistic effects bioaccumulation, changes within an emissions type

Practical definition of BAT

3. Estimate environmental effects -may be weighted to reflect closeness to environmental benchmark Practical definition of Best Available Techniques.

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

Practical definition of BAT

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

BAT as legislative tool

The requirement of BAT alone doesn’t do much, but combined with permits is a handy tool for putting the pressure for using the best alternative on those who cause environmental impacts.