Convergence with EU IPPC Policies

Short Guide for ENP Partners and Russia

IPPC

EUROPEAN COMMISSION

environment

Convergence with EU IPPC Policies

Short Guide for ENP Partners and Russia

Policy Guide: A European Approach to Tackle Industrial Pollution: Integrated Pollution Prevention and Control

July 2007

Alexander Neubauer (Ecologic)

With Contributions by Clive Lipchin, Arava Institute for Environmental Studies and Nataliya Andrusevych, Analysis Center Society and Environment

This guide was prepared and composed by
Ecologic – Institute for International and European Environmental Policy
Pfalzburger Str. 43-44, D-10717 Berlin, Tel. +49 30 86 88 00, Fax +49 30 86 88 0100
www.ecologic.eu, raggamby@ecologic.de

ISBN number 978-92-79-08299-3
Catalogue number KH-30-08-212-EN-C

Contents

1 Introduction

The European Neighbourhood Policy (ENP) was created in 2003/2004 and is now well established as the principal vehicle for cooperation with the neighbour countries. It is a collective EU response to the aspirations of its Eastern and Southern neighbours to jointly promote prosperity, stability and security in our region.

The recent historic enlargement of the EU in 2004 and 2007 contributed to the creation of a large zone of democracy and prosperity in Europe. The political, economic, social and environmental gaps between the Union and its neighbours to the East – Belarus, Ukraine, Moldova and the Southern Caucasus, and to the South, in the Mediterranean region, are worryingly large and in certain cases increasing. The EU wants to prevent the emergence of new dividing lines between the enlarged EU and its neighbours.

The European Neighbourhood Policy represents a new approach in the EU's relations with its neighbours. This "partnership for reform" is offered by the EU to 16 partner countries to the South and to the East of the EU[1]. It goes beyond classical co-operation: it consists of intensified political dialogue and deeper economic relations, based on shared values and common interest in tackling common problems. The ENP is not about membership of the EU – if an accession perspective were to be offered at some point in the future to any of the countries covered by the ENP, this would be a separate process.

The necessary legal and institutional framework for intensified cooperation with ENP partners are Partnership and Cooperation Agreements or Association Agreements. The tools, however, to deliver concrete results are jointly agreed, tailor-made ENP Action Plans[2] with short and medium term priorities (3–5 years). They cover a wide range of issues: political dialogue and macro-economic reforms, trade, co-operation in Justice, Liberty and Security, various sector-policies (transport, energy, environment and climate change, research, information society, social policy and employment) as well as a deep human dimension – people to people contacts, education, health, civil society. The ENP Action Plans also provide a means of technical and financial support in the partner's own reform efforts and modernisation.

The European Neighbourhood and Partnership Instrument (ENPI), as a "policy driven" financial instrument, will support in the period 2007–2013 the implementation of the ENP Action Plans, and, in the case of Russian Federation, which is not covered by the ENP[3], the road-maps for the four common spaces. In that context, it goes further than promoting sustainable development and fighting poverty to encompass, for example, considerable support for measures leading to progressive participation in the EU's internal market. Legislative and regulatory convergence and institution building is supported through mechanisms such as the exchange of experience, long term twinning arrangements with Member States or participation in Community programmes and agencies. The ENPI replaces MEDA and TACIS and other existing geographical and thematic instruments.

The Commission has set up a web-site explaining the ENP and its processes and containing key ENP documents such as the Strategy Papers, the Action Plans and Progress Reports. Please refer to: http://ec.europa.eu/world/enp/index_en.htm.

ENP partner countries are expected to benefit considerably from full implementation of the ENP Action Plans, including from enhanced convergence with the EU approaches. For benefits resulting from enhanced environment protection, including convergence, please refer to Chapter 3.

1 Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Israel, Jordan, Lebanon, Libya, Moldova, Morocco, the Occupied Palestinian Territory, Syria, Tunisia, Ukraine.

2 With exception of Algeria, Belarus, Libya and Syria ENP Action Plans have been agreed with all the countries mentioned

3 The EU and Russia are linked by the Strategic Partnership.

In order to help partner countries to realise these benefits, the European Commission has decided to provide information on EU environment policy and legislation in key policy areas. To this end, the European Commission has initiated the production of **six short guides** on the following topics:

- **Water quality**, with a focus on the Water Framework Directive and related developments, such as the Flood Directive or the Groundwater Directive;
- **Waste management**, with a focus on the Waste Framework Directive;
- **Air quality**, with a focus on the Framework and Daughter Directives;
- Environmental **Impact Assessment**, Strategic Environmental Assessment, Access to Information, Participation in Decision-Making, and Reporting;
- **Nature protection**, with a focus on the Habitats and Birds Directives (e.g. cross-border co-operation) and the Natura 2000 network (e.g. ways to establish measures or monitoring);
- **Industrial pollution**, including the Integrated Pollution Prevention and Control Directive.

Where relevant the guides address the seven Thematic Strategies under the 6th Environment Action Programme (EAP).[4] The Thematic Strategies constitute the framework for action at EU level in each of the concerned priorities and cover the following fields: soil and the marine environment (in the priority area of biodiversity), air, pesticides and urban environment (in the priority area of environment, health and quality of life) and natural resources and waste recycling (in the priority area of natural resources and waste).[5]

Climate change issues are becoming an increasingly important component of the EU's environmental cooperation with partner countries, which bilateral dialogues will increasingly address. Documents on this crucial topic of common interest will be issued separately from this series of guides.

The **purpose** of this policy guide on IPPC is to provide information on EU policy and legislation by describing the policy background and explaining how progress can be achieved through the prioritisation and sequencing of activities. The guide shows how gradual or partial convergence with the EU environment policy and legislation can assist the ENP partner countries and Russia in addressing environmental concerns.

The policy guide sets out the key principles and concepts of the relevant pieces of legislation and outlines the main policy instruments used within the EU. This includes summarising the main provisions of the legislation. The guide also addresses the current general policy situation of Eastern and Mediterranean ENP partners and looks at potential challenges to convergence. Finally, it identifies useful steps to be taken to promote convergence. Since the individual situation in partner countries varies considerably, the guides take a general approach and references to specific countries are not made. The relevance of full or partial convergence is also to be seen in this light.

4 For the 6th EAP please refer to: http://ec.europa.eu/environment/newprg/index.htm.
5 For the seven Thematic Strategies please refer to: http://ec.europa.eu/environment/newprg/strategies_en.htm.

2 In a Nutshell

The problems that this policy aims to address

Industrial production processes account for a considerable share of the overall pollution in Europe (for pollutants such as greenhouse gases, acidifying substances, wastewater emissions and waste).

In essence, the Directive 96/61/EC concerning integrated pollution prevention and control (IPPC Directive) is about minimising pollution from various industrial sources throughout the European Union. Operators of industrial installations covered by Annex I of the IPPC Directive are required to obtain an authorisation (environmental permit) from the authorities in the EU countries. About 50,000 installations are covered by the IPPC Directive in the EU including the energy sector, production and processing of metals, the mineral industry, the chemical industry, certain waste management activities and intensive farming.

How the policy addresses these problems

The IPPC Directive lays down measures designed to prevent or, where that is not practicable, to reduce emissions in the air, water and land from the above-mentioned activities (installations), including measures concerning waste, promoting energy efficiency and ensuring accident prevention and damage limitation, in order to achieve a high level of protection of the environment taken as a whole (see below in detail).

The Directive ('the IPPC Directive') imposes a requirement for industrial and agricultural activities with a high pollution potential to have a permit which 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.

In order to receive a permit an industrial or agricultural installation must comply with certain basic obligations. In particular, it must:

- use all appropriate pollution-prevention measures, namely the best available techniques (which produce the least waste, use less hazardous substances, enable the recovery and recycling of substances generated, etc.);
- prevent all large-scale pollution;
- prevent, recycle or dispose of waste in the least polluting way possible;
- use energy efficiently;
- ensure accident prevention and damage limitation;
- return sites to their original state when the activity is over.

In addition, the decision to issue a permit must contain a number of specific requirements, in particular including:

- emission limit values for polluting substances (with the exception of greenhouse gases if the emissions trading scheme applies – see below);
- any soil, water and air protection measures required;
- waste management measures;
- measures to be taken in exceptional circumstances (leaks, malfunctions, temporary or permanent stoppages, etc.);
- minimisation of long-distance or transboundary pollution;
- release monitoring;
- all other appropriate measures.

New installations, and existing installations subject to "substantial changes", have been required to meet the requirements of the IPPC Directive since 30 October 1999. Other existing installations must be brought into compliance by 30 October 2007. This is the key deadline for the full implementation of the Directive.

The permit conditions have to reflect the best available techniques, meaning the most effective and advanced technologies available on a large scale and suited for implementation under economically and technically viable conditions, guaranteeing the minimisation of emissions and impacts to the environment as a whole.

The best available techniques in Europe are identified and described via a Europe-wide information exchange process, managed by the European IPPC Bureau, a bureau within the Joint Research Centre, a European Commission dependent agency in Seville.

However, the IPPC Directive contains elements of flexibility by allowing the licensing authorities, in determining permit conditions, to take into account the technical characteristics of the installation, its geographical location and the local environmental conditions. The Directive ensures that the public has a right to participate in the decision making process, and to be informed of its consequences.

Benefits to be expected include

The benefits of the IPPC policy include the minimisation of emissions and other negative impacts on the environment caused by industrial installations subject to the IPPC Directive.

The stipulation to base all permits on best available techniques will foster the diffusion of advanced technology in Europe and force operators to invest in environmentally sound technology.

The requirement for "existing" installations to abide by the requirements of the IPPC Directive by October 2007 will force "outdated" industrial installations in Europe to either adapt to new standards or cease operation.

3 Expected Benefits of Convergence

The expected benefits arising from convergence with the EU's Policy on Integrated Pollution Prevention and Control (IPPC) lie in the modernisation of existing industrial technology, the minimisation of emissions and other environmental impacts from industrial installations and public surveillance over the environmental impact of industrial activities.

The IPPC Directive aims at fostering the best available techniques (BAT). Many types of industrial installations must be permitted on the basis of the best available techniques. In order to give guidance as to what is considered BAT, an information exchange process has been established at the European level to identify BAT. This process also raises awareness of best available techniques and results in publicly accessible documents describing BAT (Best available techniques Reference Documents, BREFs) concerning the different types of installations.

The requirements of the IPPC Directive are addressed at new and existing installations and thus promote an adaptation of old technologies to current standards, improving their environmental performance.

The public must be informed of any permit application regarding industrial activities covered by the IPPC Directive and can comment on these before the competent authorities reach their decision. The public must also be informed of the final decision and the results of the monitoring of releases. Thus, the IPPC Directive also strengthens public participation in the permitting and surveillance of industrial activities.

Finally, the European Pollutant Release and Transfer Register lists the sources of industrial emissions from industrial installations covered by the IPPC Directive and gives an overview to the public and the authorities where these sources are situated and how they develop.

Since the IPPC Directive focuses on permitting conditions and procedures, benefits of converging with the IPPC Directive are mainly expected to show in the permitting process itself. However, an IPPC consistent permitting process will lead to industrial modernisation and thus to the minimisation of environmentally harmful emissions from industry, especially emission abatement.

4 Overview of EU Policy

4.1 Introduction: IPPC Directive as a horizontal instrument for emission abatement

Industrial emissions are one of the main sources of environmental pollution; therefore, the European Union has decided to apply a two-fold approach to tackle this problem.

On the one hand, the different economic sectors are subject to **"sector" directives** that set standards and lay down requirements for the respective economic activities. The Large Combustion Plant Directive and the Waste Incineration Directive are examples of such sector directives.

The **IPPC Directive**[6], on the other hand, is a **horizontal instrument** for preventing and controlling emissions from industrial installations in the EU. The IPPC Directive encompasses most industrial activities (see Annex I of the Directive), including the following:

- energy industries;
- production and processing of metals;
- mineral industry;
- chemical industry;
- waste management;
- other activities (short enumeration of specific activities in the Directive, like slaughterhouses, installations for the intensive rearing of poultry/pigs, etc.).

However, the Directive does not apply to all installations used for these activities; rather, it gives exact definitions (e.g. capacities, treated materials, etc.) of the installation to which it applies. In many cases, installations are subject both to sector-specific directives setting minimum requirements and the more flexible IPPC Directive.

The basic principle of the IPPC Directive is that – in order to operate legally – all of the installations in Annex I must be **permitted** by the competent authorities in the Member States. The IPPC Directive comprises a set of common requirements that the permitting procedure must fulfil.

The IPPC Directive is one of the **command-and-control instruments** of European law that impose certain legal restrictions to economic activities for environmental reasons.

4.2 Integrated Permits on the basis of Best Available Techniques (BAT)

The permits issued to the installations mentioned in Annex I of the IPPC Directive must be:

- **integrated** (i.e. all relevant impacts on the environment have to be taken into account); and
- based on the **best available techniques** (BAT), without prescribing the use of any technique or specific technology while taking into account the technical characteristics of the installation concerned, its geographical location and the local environmental conditions (see in detail 4.2.4). This concept concerns all new installations and existing installations subject to "substantial changes" from 30 October 1999 and all other existing installations from 30 October 2007.

6 Directive 96/61/EC concerning integrated pollution prevention and control.

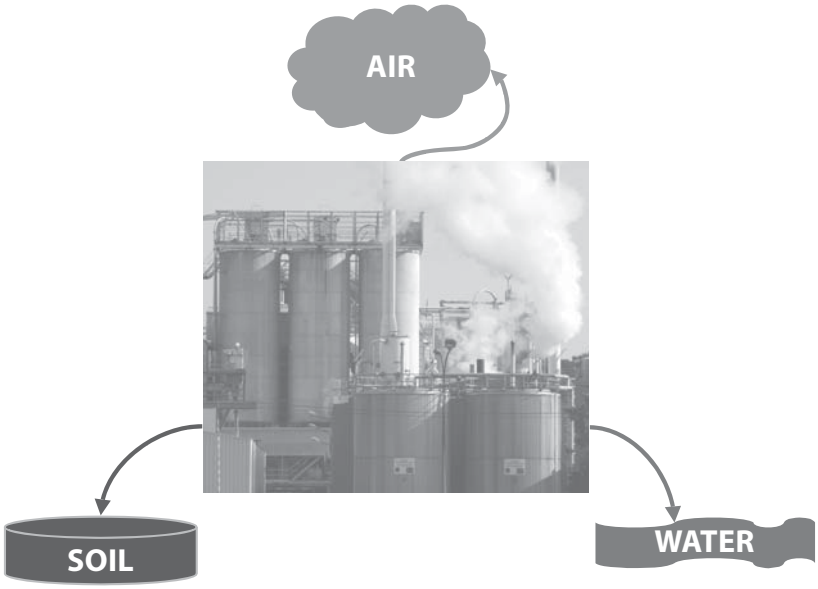
4.2.1 Basic permitting requirement

One of the basic requirements of the IPPC Directive is that all installations mentioned in Annex I must be permitted by the competent permitting authorities. Thus, authorities must examine all such installations with regard to their potential environmental impacts, as stipulated in the IPPC Directive. The conditions for operation of these installations are laid down in the permit according to the gravity of the potential impacts.

4.2.2 Requirements for Integrated Permits

Contrary to traditional permitting concepts, a permit for an industrial installation under the IPPC Directive must cover all emissions into air, water and soil, impose conditions for efficient energy use in the industrial process and contain provisions for efficient waste management (i.e. reduction of industrial waste and recovery where not possible, or as a last resort, sound disposal of waste). The permits also must contain provisions for the prevention of accidents (and limits on their consequences), as well as provisions for the necessary measures to be taken upon definitive cessation of activities to avoid any pollution risk and return the site of operation to a satisfactory state.

Ultimately, the permit(s) must address activities allowed in the framework of the permit holistically by focussing on all aspects relevant to the environment (water, air, soil, energy and waste) as well as for the security of employees.



According to Article 7 of the IPPC Directive, Member States shall take the measures necessary to ensure that the conditions and procedures for granting permits are fully co-ordinated when more than one competent authority is involved in order to guarantee an effective integrated approach. The requirement of an integrated permit **does not necessarily** mean that only one permit has to be issued[7]; there is still the possibility to issue several permits as long as all the aspects contained in the IPPC Directive are taken into account and the authorities co-ordinate their activities.

7 http://ec.europa.eu/environment/enlarg/pdf/convergence_guide_en.pdf (7 March 2007).

4.2.3 Requirement of permits based on Best Available Techniques

The IPPC Directive requires that industrial installations be based on best available techniques (BAT), the legal definition of the term is as follows:

> **Best available techniques** means the most effective and advanced stage in the development of activities and their methods of operations. The techniques should indicate the practical suitability of particular techniques for providing, in principle, the basis for emission limit values designed to prevent, and, where this is not practicable, generally to reduce emissions and the impact on the environment as a whole.
>
> **Technique** includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.
>
> **Available** techniques means those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member States in question, as long as they are reasonably accessible to the operator.
>
> **Best** shall mean most effective in achieving a high general level of protection of the environment as a whole.

To put it more simply, BAT means the most effective and advanced techniques available on a large scale and suited for implementation under economically and technically viable conditions that guarantee the minimisation of emissions and impact on the environment as a whole.

4.2.4 European information exchange process to describe BAT per sector

It is most important to note that the Directive itself **does not lay down** what is to be construed as BAT for the respective sectors in Annex I. Therefore, the IPPC Directive **does not define any maximum emission limit values (ELVs)** for the different economic activities and installations. For indication as to what is to be regarded as "best available techniques", a European information exchange process, the so-called Seville Process was created. The emission limits for the different installations laid down in the permits have to be derived from Best Available Techniques-associated emission levels, i.e. the levels of emissions achieved by those technologies identified as "best available techniques".[8]

4.2.4.1 Information Exchange on BAT ("Seville Process")

Art 16(2) IPPC Directive calls upon the European Commission to organise an exchange of information on BAT for the different Annex I activities with the Member States and industries concerned. This exchange of information is a quintessential requirement of the IPPC Directive.

The exchange of information is co-ordinated by the European IPPC Bureau in Seville (Spain)[9] and is carried out for every sector listed in Annex I-activities; in some cases there are also information exchanges for sub-sectors (for example waste incineration as opposed to waste treatment). The IPPC Bureau carries out its work through Technical Working Groups (TWGs) for each sector comprising nominated experts from EU Member States, EFTA countries, Accession countries, industry and environmental NGOs. These experts provide information and data and then review the draft documents the Bureau produces.

4.2.4.2 Best Available Techniques Reference Documents (BREFs): A basis of the permitting procedure in the Member States

The final results of this information exchange process are technical working documents, the so-called Best Available Technique Reference Documents (BREFs).

---

8 See for further information http://www.ecologic-events.de/ippc/en/documents/synwg_1.pdf (15 November 2007).

9 Because of the exchange-sessions taking place in Seville the process is also called Seville-process.

BREFs include empirical data from installations of the various sectors that are viewed by the TWG to represent best available techniques, including information on the monitoring of emissions from the installations. The BREFs are thus intended to describe the BAT found within the European Union, regardless of the specific standard of a specific Member State where a permit has to be issued.[10]

As a result, EU Member States that are technologically more advanced will be able to influence the description of BAT in the BREFs in their favour. In turn, Member States that feature installations with a technological standard much inferior to the BAT described in the BREFs, and where BAT technologies have so far not been employed, will have to base their permits for existing and new installations on BAT, as reflected by the BREF. The implementation of BAT across Member States stimulates the development of new techniques and technologies.

The most practical, relevant data contained in the BREFs are the empirical emission levels of installations. In order to apply the BREF information to the respective installation, the permitting authority has to deduce the concrete **emission limit values** from the BREF's empirical emission levels of BAT installations and impose the emission limit value on the installation.

The BREFs are not legally binding for the Member States, but the European Commission expects the information contained in the BREFs to be taken into account by the Member States when they issue IPPC-conform permits.[11]

The BREFS are published by the European Commission and can be downloaded[12]. The information process is a continuing process. The BAT Reference documents are updated on a regular basis, typically every five to seven years.

Member States practice:

In most EU Member States the permitting authorities work on a **case-by-case basis**. Thus, the permitting authorities have to come up with the permitting conditions tailored for the specific installation to be permitted. It is up to the permitting authorities to identify what BAT is for each specific case. **Estonia, Lithuania, Slovenia or Ireland** for instance report that they use the BREF information directly when they finalise permitting requirements on a case-by-case basis.[13]

A few Member States **(Austria, Germany and Hungary)** derive from the BREFs **general binding rules (GBRs).** GBRs are limit values or other conditions usually defined in environmental laws, regulations and orders at sector level or wider, that are given with the intention to be used directly to set permit conditions. They provide direct conditions or minimum standards. (i.e. national laws or regulations) that lay down general emission limit values, energy efficiency levels, monitoring requirements, etc. for the different types of industrial installations. Hence, in these states the permitting authorities have to comply with national law, which is supposed to reflect what BAT is for the different industrial installations. These general binding rules are binding for the permitting authorities and constitute minimum requirements. The general binding rules help to prevent the permitting practice from becoming too divergent within a Member State (e.g. by different interpretations of BAT by different authorities in different regions) whilst reducing the administrative burden when issuing a permit. In many cases, these general binding rules were in force in the respective Member State prior to the IPPC Directive,[14] but in some cases had to be adapted to the BAT as described in the respective BREF.

---

10 If e.g. a permit has to be issued for a waste incineration plant in Latvia or Spain, it is not relevant what are best available techniques in Latvia or Spain but what are the best available techniques on the EU level. This standard has to be deduced from the BREF waste incineration.

11 See Summary of IPPC Conference "On the Road to Sustainable Production in the Enlarged EU", http://www.ecologic-events.de/ippc/en/documents/summary_final.pdf , p. 4.

12 http://eippcb.jrc.es/pages/FActivities.htm (1 March 2007).

13 http://www.ecologic-events.de/ippc/en/documents/wg1.pdf (6 March 2007).

14 See Report from the Commission to the Council and the European Parliament: Report of the Commission on the implementation of Directive 96/61/EC concerning integrated pollution prevention and control, http://eur-lex.europa.eu/LexUriServ/site/en/com/2005/com2005_0540en01.pdf, p. 5 (6 March 2007).

One of the countries employing general binding rules is **Germany**. In the event that BREFs or advanced drafts existed at the time of the adoption of the German general binding rules, their information was taken into account in determining the emission control requirements. A system for automatically updating the basic emission law (TA Luft) when a BREF provides new BAT standards has been established. When a new or revised BREF is published by the Commission, an Advisory Committee set up by the Federal Environmental Ministry (BMU) examines to what extent the new BREF contains requirements that go beyond, or that supplement the requirements in the TA Luft. If the committee concludes that the state of techniques has developed or that the specifications of the TA Luft need to be supplemented, the BMU provides notification of this following a defined procedure. The licensing and monitoring authorities must then take into account changes to the state of techniques.[15]

4.2.5 Application of BAT on new and existing installations in the EU

The permit requirement for the installations subject to the IPPC Directive has been applied to "new" installations since 30 October 1999. For existing installations, those installations that were put into operation or permitted before the implementation of the Directive[16], full compliance with the Directive is required by 30 October 2007. Existing installations must comply prior to the October 2007 deadline where they undertake a "substantial change" to their activity.

The immediate effect of these requirements is that existing installations have to be adapted to the Best Available Techniques (BAT) and new installations have to conform to BAT prior to start up.

Through the implementation of BAT for both new and existing installations the IPPC Directive acts as **an instrument to modernise industrial installations throughout the European Union**.

4.2.6 Requirement to reconsider and update permits

According to Art. 13 of the IPPC Directive, Member States must take the necessary measures to ensure that competent authorities periodically reconsider and, where necessary, update permit conditions. This is *inter alia* the case:

- if the pollution caused by the installation is of such significance that the existing emission limit values of the permit need to be revised or new such values need to be included in the permit; or
- if substantial changes in the best available techniques make it possible to reduce emissions significantly without imposing excessive costs.

4.2.7 Informing the Public

4.2.7.1 Informing the Public on Permitting Procedure and Monitoring

The IPPC Directive requires Member States to take the necessary measures to ensure that applications for permits for new installations or for substantial changes, are made available for an appropriate period of time to the public, to provide adequate opportunities for their comments prior to the competent authority reaching its permitting decision. That decision, including at least a copy of the permit, and any subsequent updates, must then be made available to the public. (Art. 15(1) IPPC Directive)

The results of monitoring of releases as required under the permit conditions referred to in Article 9 of the IPPC Directive and held by the competent authority must also be made available to the public (Art. 15(2) IPPC Directive).

15 http://www.ecologic-events.de/ippc/en/documents/wg1.pdf (6 March 2007), p.2.
16 The legal definition of "existing installation" is a little more complex, please see for this Art. 2 Nr. 4 of the IPPC Directive.

4.2.7.2 The Public European Pollutant Emissions Register (EPER) and E-PRTR (European Pollutant Release and Transfer Register)

To inform the public on emissions from industrial installations, the EU has set up an inventory of the principal emissions and sources responsible to be published on a regular basis, by the Commission on the basis of the data supplied by the Member States.

The Decision of the European Commission on the implementation of a European Pollutant Emission Register (EPER) solidifies the obligations laid down in Art. 15(3) IPPC Directive. Member States shall report to the Commission on emissions from all individual facilities with one or more activities, as mentioned in Annex I of Directive 96/61/EC. The reports must include emissions to air and water for all pollutants. The report covers 50 pollutants that must be included if the threshold values indicated in Annex A1 of the EPER Decision are exceeded. The emission data is reported for each facility and the Member States provide the Commission with an overview report including the national totals of all reported emissions for each of the source categories within the main Annex I activity (see Art. 1 No. 3 and 4 of the Decision of the Commission).

As successor of the EPER, the European Pollutant Release and Transfer Register (European PRTR) has been created by Regulation (EC) No 166/2006, adopted on 18 January 2006. The PRTR's first edition is expected to be published in the autumn of 2009 and will include data for the first reporting year 2007.

The European PRTR will be more comprehensive than EPER as it will cover more than 91 substances emitted from industrial installations in 65 different sectors of activity (respectively 50 substances and 56 sectors under EPER). Operators carrying out one or more of the activities listed in Annex I of the PRTR Regulation have to submit information to the competent national authority if their activities involve releases or transfers of pollutants exceeding certain threshold values. The PRTR will include transfers of waste and wastewater from industrial facilities to other locations, as well as data on emissions caused by accidents on facilities' sites. The European PRTR will also be published annually, a much shorter time period than the triennial reports under EPER.

Existing data on releases from diffuse sources such as road traffic, agriculture, domestic heating, shipping, etc. will be included; a first pilot inventory on those releases from diffuse sources is already accessible.

In order to facilitate the implementation of the European PRTR, the European Commission in co-operation with the Member States and other stakeholders, has published a Guidance document for implementation of the European PRTR.

In its 2005 report on the implementation of the IPPC Directive, the European Commission announced that it will increase the use of the European Pollutant Emission Register to identify the main industrial emitters and scrutinise the application of the IPPC Directive to these installations. In particular, the European Commission identified installations that were responsible for important emissions of a specific pollutant and will monitor the measures taken by Member States to ensure that these installations fully comply with the IPPC Directive by 30 October 2007.[17]

Benefits of EPER in the Member States and for the European Commission

The collection of emissions data by the Member States enables the Member States and the European Commission to identify the most polluted industrial sites in the respective Member States and allows the permitting authorities to set priorities in their monitoring and inspection activities. Since the register is publicly available, the public and NGOs have a solid instrument to identify polluting sites in their proximity. This may facilitate campaigns for a higher environmental standard, especially for emission abatement in certain areas. Therefore, the EPER/E-PRTR makes the industrial processes more transparent to the "outside world". In addition, the fact that the emissions data are publicised on the internet may increase public pressure on the biggest polluters and will enable environmental stakeholders to gain information that they would otherwise not easily have access to.

[17] http://www.ec.europa.eu/environment/ippc/pdf/table_largest_emitters_jan_06.pdf (6 March 2007).

5 Current situation with respect to Policy Sector

5.1 Main environmental pressures

Since industrial installations in the **East European ENP partners and Russia** often date from Soviet times, in many cases the technology is outdated. Such installations are not efficient with regard to energy, waste production and waste recovery. In these areas, activities such as oil and gas extraction, along with transportation and industrial production (especially energy production), have been the source of severe air, water, and soil pollution (e.g. in the Caspian region). Important sources for pollution are oil and gas extraction (oil fields) and refineries, as well as agricultural, industrial and municipal waste that is often discharged without any treatment into the sea, causing significant marine pollution.[18]

As for the **Mediterranean ENP partners**, all of these countries have gone through a period of industrialisation in recent times. Industrial pollution and inefficient energy use is common. More efficient and waste-reducing technologies are needed. The main sources of air pollution are energy and industrial production and vehicle emissions.[19] Stationary sources, such as power generation stations, refineries, fertiliser plants, cement manufacturing, and some desalination plants also significantly contribute to air quality deterioration, especially where power generated from low-quality fuel is used.[20] The protection of the Mediterranean Sea from industrial effluents that are insufficiently treated is another significant environmental pressure in the region.[21]

5.2 Particular concerns and challenges

The modernisation of outdated industrial installations is a great challenge that must be addressed in order to improve the environmental situation. Such installations generate emissions that far exceed the environmental standards set by EU law (e.g. by the sectoral directives and the IPPC Directive).

5.2.1 Mediterranean Neighbours

The Mediterranean Partners include the North African states of Tunisia, Algeria, Morocco, Egypt and Libya, as well as Israel, Jordan, Lebanon, the Palestinian Authority and Syria in the Middle East. In most of the **ENP Action Plans** concerning these countries, the enhancement of administrative capacities for the issuing of integrated permits as well as for the enforcement and inspections is included.

Legislation is needed to control industrial emissions and provide economic incentives to foster BAT. In some countries sector-specific legislation exists.[22] A monitoring and self-monitoring system could greatly improve environmental performance of industries, especially if combined with a policy of economic incentives for the private sector.

18 See http://www.eia.doe.gov/cabs/caspenv.html
19 Report for DG Environment, Support to DG Environment for the development of the Mediterranean De-pollution Initiative "Horizon 2020", p. 46.
20 See ibidem.
21 See ibidem, p. 189.
22 See Report for DG Environment, Support to DG Environment for the development of the Mediterranean De-pollution Initiative "Horizon 2020", p. 50.

5.2.2 Eastern European Neighbours and Russia

The EU's Eastern ENP partners are comprised of Belarus[23], Moldova, Ukraine, as well as Georgia, Armenia and Azerbaijan in the Caucasus. In most of the **ENP Action Plans** concerning these countries, the enhancement of administrative capacities for the issuing of integrated permits as well as for the enforcement and inspections is included. The EU-Russia Common Economic Space road map includes actions to implement environmental cleaner production policies and the use of natural resources saving technologies, as well as to reduce risks of accidents and to reduce the effects of pollution.

The following regulatory challenges for reform of the existent permitting systems can be identified:

- Requirements for installations should be inter-linked.
- Environmental permitting requirements and procedures should be proportionate to the polluting impact of installations; there should be differentiation between small and large sources.
- The environmental permitting should consider the overall environmental impact of an installation.
- Environmental permits should not be limited to medium-specific emission limit values (ELVs) and should include conditions for energy efficiency, use of raw materials and water, emergency preparedness, decommissioning, reporting and accident notification, etc.
- Economic and technical assessments of the feasibility of permit requirements are needed to ensure realistic ELVs.
- Public involvement in the permitting process should be strengthened.

Institutional challenges include:

- The co-ordination between the competent authorities should be strengthened and administrative processes simplified.
- Co-operation between environmental permitting authorities and environmental enforcement officers in setting and ensuring compliance with permit requirements should be improved.
- The environmental authorities should manage and make better use of information on polluters gathered through regular environmental and statistical reporting.

5.2.3 Common Challenges for all ENP partners

Although the countries in Eastern Europe feature environmental laws that form a framework for the permitting procedure for industrial installations, there is no requirement to employ BAT to operate industrial installations. In addition, a clear definition of BAT is lacking for those countries willing to employ BAT.

While the modernisation of the existing industrial installations is of paramount concern, national legislation in the ENP partners and Russia does not compel industries to adapt their technologies to best technical standards. The authorities in these countries do not have a list of industrial installations and their current emission levels.

[23] Although the European Neighbourhood Policy also applies to Belarus, it is not yet "activated" due to the fact that to date no Partnership and Cooperation Agreement or Association Agreement between the EU and Belarus is in force. Therefore, no Action Plan exists for this country.

6 Conclusions for ENP and Russia

EU funding for ENP

From the beginning of the new Financial Framework 2007–2013, the EU is providing financial support for the ENP through a dedicated **European Neighbourhood and Partnership Instrument (ENPI)**. It targets various areas of co-operation including sustainable development and the environment, supporting jointly agreed reform priorities in the ENP Action Plans. The ENPI will target sustainable development and convergence with EU policies and legislation, and bring a radical improvement in capacity to support cross-border cooperation along the EU's external borders – thus giving substance to the aim of avoiding the creation of new dividing lines and promoting harmonious territorial development across the EU external border. The ENPI replaces MEDA (for the Southern Mediterranean neighbours) and TACIS (for the Eastern neighbours and the Russian Federation).

Guided by the agreed priorities in the ENP Action Plans, the ENPI provides for assistance under national, regional, cross-border and interregional programmes. There are also a certain number of thematic programmes with global scope from which the ENPI countries can benefit. This includes a thematic programme for environment and sustainable management of natural resources including energy.

The ENPI budget is fixed at around € 12 billion for the period 2007–2013. In real terms it means as increase of 32% as compared with the previous financial framework.

As a means of delivering technical assistance under the ENP, the **Technical Assistance and Information Exchange (TAIEX) instrument** and long-term **twinning** arrangements have been made available to the ENP partner countries:

- **TAIEX** provides technical support and training in areas related to the implementation of the ENP Action Plans, including with regard to the convergence, application and enforcement of legislation. It is largely demand driven and channels requests for assistance and contributes to the delivery of appropriate tailor-made expertise to address problems at short notice[24].
- **Twinning** aims to help beneficiary countries in the development of modern and efficient administrations. It can also facilitate gradual convergence to EU legislation where relevant and appropriate.

The IPPC Directive and the accompanying Commission Decisions establishing EPER and E-PRTR have created a new approach in controlling and reducing emissions from industrial installations. The requirement of basing permitting for new **and existing** industrial installations on BAT is an instrument to foster the modernisation of all installations within a country.

As one of the most fundamental problems in the ENP partners and Russia is outdated technology, the approach of the IPPC Directive could be of significant interest for these countries.

Taking into account all requirements of the IPPC Directive, a step-by-step approach is recommended:

24 http://taiex.ec.europa.eu/

6.1 Step-by-step approach to control emissions from industrial installations

This step-by-step approach could include the following steps and substeps:

- Introduction of a permit requirement for industrial installations (Step 1), which includes
  - Simple permit requirement (substep 1) or integrated permit requirement (substep 2);
  - Formulation of minimum standard requirements on which to base the permit;
- Best Available Techniques as a basis for a permit to be issued (Step 2)
- and as an additional step, the publication of emission levels.

6.1.1 Permit requirement and minimum standard requirements for a permit to be issued (Step 1)

Simple Permit requirement (Substep 1)

The most fundamental step needed to control industrial installations with considerable impacts on the environment is the introduction of the **basic obligation** for the (future) operator of these installations **to have the installations permitted** before they start operating. This permit requirement must be strictly enforced, giving the authorities an overview of the most important industrial activities likely to cause emissions into air, water, soil and that consume a high proportion of energy and producing industrial waste.

Integrated Permit requirement (substep 2)

Ideally, the permit requirement will encompass all emissions into air, soil and water, the production/treatment of waste and the use of energy as well as the issues of accident prevention/damage limitation and the return of sites to their original state when the activity is over.

Permits should, therefore, be issued as integrated permits. The permit must set conditions in a holistic way and take into account all possible environmental effects that could be caused by the industrial installation in question. This does not necessarily mean that only one permit is required, or that only one authority examines all relevant aspects. Instead, it implies that the potential impact of a certain industrial activity on the environment as a whole is assessed in the permitting procedure.

Either way, the public should be given an opportunity to comment on permit applications before the competent authority reaches its decision and have access to the permit-related information after the permit has been awarded.[25]

The first step in the transition to the integrated permitting system should be to determine the scope of the integrated permitting system—that is, establish a list of industrial sectors and the minimum size of installations to be controlled under the integrated permitting regime.[26]

Environmental minimum standard requirements for a permit to be issued

The environmental requirements on which the permits are to be based should force the operator of the installations to emit as few emissions as possible, use energy in an efficient way and reduce/recover/recycle industrial waste typical for the various industrial activities.

In order to achieve this objective, permitting laws could be passed prescribing minimum environmental requirements for the operation of the different installations (general binding rules). As an alternative, the laws could refrain from naming minimum requirements and leave it to the authorities to deduce the permit conditions from currently available information regarding the respective technologies, e.g. also BREFs.

---

25 Further information concerning the adaptation of the permitting system to an integrated permitting system can be found in: http://www.oecd.org/dataoecd/54/31/35056678.pdf (25 may 2007).

26 For this see: Integrated Environmental Permitting Guidelines for Countries of Eastern Europe, Caucasus and Central Asia (EECCA) http://www.oecd.org/dataoecd/54/31/35056678.pdf

In order not to stifle economic growth, the environmental laws regarding industrial installations (i.e. the material law outlining the operating conditions for the industrial installations) should be ***gradually*** tightened to improve the environmental performance of the installations.

In the event that the respective country should develop general binding rules, they should encompass:

- emissions into air, soil and water (e.g. emission limit values, monitoring requirements, reporting requirements, and risk management);
- energy use (definition of energy efficiency in the different industrial activities, especially in the area of energy production in power plants); and
- industrial waste (obligation to reduce, recycle or recover waste in an environmentally sound way);
- measures taken upon the closure of an installation.

The legislation should take into account the particularities of the different industrial activities and must be binding for the operators of the industrial installations.[27] The requirements must be addressed to all new industrial installations as well as to existing installations, where the latter could profit from a transition period. This would be the decisive lever to foster the modernisation of the industrial installation existing in the ENP partners and Russia.

In order to be effective, the permitting authorities must strictly enforce the requirements laid down by the national permitting laws. Thus, an effective structure of authorities that control the compliance of the industrial installations with the conditions laid down by the permits is necessary. Best practice examples of such a structure should be exchanged between the countries.

6.1.2 Best Available Techniques as a basis for a permit to be issued (Step 2)

In order to achieve a sophisticated technological level and to enhance environmental protection, the ENP partners could engage – similar to the EU – in their own **information exchange process among themselves** to determine the BAT in the region. Once the BAT is identified through this exchange, it should be used as a guideline to modernise existing installations and permit new installations. This process will require a significant organisational effort by the different countries to analyse the best available technologies available in their territory and/or affordable for their industry.

Another alternative would be to use the existing BREFs published by the European Commission as a basis to identify BAT for the region. The information contained in the BREF could convey what is achievable by the best available technique in Europe and could be adapted to the situation in the ENP partners. Thus, the factual emission limit values set in the permits could be higher in the ENP partners than in the EU Member States in order to avoid overcharging the industry and thereby stifling economic growth in the region.

Nonetheless, it should be a long-term target to converge the technical standards of the Eastern and Mediterranean countries to the standard common in the European Union. In order to achieve this, there should be a constant exchange between the Eastern and Mediterranean countries/Russia with European experts and the European IPPC Bureau. This could be done on a bilateral or multilateral level, in an informal or formal way. European experts should include representatives of the National Focal Points for the Information Exchange on best available Techniques according to IPPC Directive in the EU Member States. This exchange could help identify the Best Available Techniques in the ENP Countries and Russia, and give guidance as to the approximation of the technical standards of the ENP countries to the EU's standard. Here, the experience and strategies of the Member States of the European Union to bring all of their industrial installations in compliance with the IPPC Directive and BAT by 30 October 2007 could be useful to guide the technological development of the Neighbouring Countries/Russia.[28] Given that a fair share of EU Member States have

---

27 Notwithstanding the fact that the IPPC Directive does not provide any economic incentives for operators of industrial installations to "motivate" them to comply with the Directive, the national laws in the ENP partners and Russia could include economic incentives for the operators of industrial installations if they adapt their installations quickly and/or employ technology that surpasses the minimum requirements by the law.

28 Up until now, the European Commission has expressed worries that a big number of installations in the European Union, i.e. the existing installations, have not yet been given a permit in accordance with the IPPC Directive. Thus, the EU Member States have to devise strategies how to comply with the requirement of the IPPC Directive to operate all existing industrial installations based on BAT as from 30 October 2007. These strategies might prove useful for the Neighbouring Countries.

not met the deadline of October 2007 to adapt all IPPC installations to the requirements of the Directive, the strategies devised by these States to catch up and counter any infraction procedures could give some indication for ENP in technology adaptation.

Moreover, the observation of the development of the BREFs (i.e. the foreseen "updates" of the BREFs every three years) by the neighbouring countries could be a useful strategy to pursue this aim. It is, for example, conceivable that techniques no longer considered BAT in the European Union would constitute a considerable improvement in the technological standard in the neighbouring countries of the EU.

6.1.3 Publication of emission levels in the Eastern and Mediterranean Countries (additional step)

In order to achieve transparency and to inform the population about the current emission levels in the different regions and localities, the Eastern and Mediterranean countries could institute an instrument modelled on the EPER or E-PRTR.[29]

Implementing such a registry would help the public and NGOs identify polluting sites in their regions, and, if needed, could motivate political or legal action aimed at reducing pollution from these sites. In turn, it would provide an additional measure to motivate operators of industrial installations to make efforts to decrease industrial emissions.

6.2 Challenges to Convergence and Costs

A challenge to convergence is that the IPPC Directive is rather demanding in its stipulations, possibly overburdening some countries that do not currently have an elaborate permitting system in place.

As can be observed in the European debate about the implementation of the IPPC Directive, the concept of permits based on BAT, as well as the requirement that all existing installations comply with the Directive by October 2007, is a challenge for several EU Member States.

The experiences of implementation and enforcement of the IPPC Directive in the European Union can provide some valuable orientation for the ENP partners. This information can be gathered *inter alia* at the national focal points for the information exchange process according to the IPPC Directive, for example the German Umweltbundesamt. Implementation reports from the Member States can also be found at the European Commission's IPPC website: http://ec.europa.eu/environment/ippc/index.htm .

Apart from the administrative costs emerging from introducing a permitting system oriented towards the IPPC Directive, the costs for industry must be considered. The imposition of a "high-level" BAT in the ENP partners and Russia may constitute a significant burden on industry striving to gain competitiveness after the dissolution of the Soviet Union. Permit requirements that demand a high level of technology and emission abatement could stifle economic growth, depending on the industry. Thus, a step-by-step approach would be well advised, giving industry "planning security" and gradually improving the environmental standard of industry and the environmental situation near industrial sites.

Also, the environmental awareness of permitting authorities might need to be raised, as well as the capacity of the authorities to formulate holistic, i.e. integrated, permit conditions for the operation of industrial installations. This will require a certain level of co-operation and self-co-ordination between the authorities. It also requires that one authority takes the lead in the permitting process and consults with all other authorities concerned by a certain industrial activity. In this way, all aspects referred to in the IPPC Directive can be examined.

Finally, the facilitation of public participation, i.e. public information and involvement in the permitting process, can be a highly effective strategy to foster high quality environmental conditions in industrial permits and will also help to ensure compliance of the industrial operators with these conditions.

---

[29] Some of the Eastern Neighbouring Partners are signatory countries of the Protocol on Pollutant Release and Transfer Registers, see http://www.unece.org/env/pp/prtr/docs/2007/ENVSEC_PRTR_prop_%202007_07_final_rev2.pdf, see endnote 8.

7 Literature and Further Reading

European Commission's Information on the IPPC Directive
http://ec.europa.eu/environment/ippc/index.htm (in English)
German Environmental Agency, Best Available Techniques,
http://www.bvt.umweltbundesamt.de/index.htm (in German)
Information about IPPC on the EU Commission's Conference "On the Road to Sustainable Production in the Enlarged EU – Integrated Pollution Prevention and Control (IPPC), all information in English
http://www.ecologic-events.de/ippc/en/index.htm
European Environmental Agency, Information about E-PRTR, http://www.environment-agency.gov.uk/business/444255/446867/255244/255298/256998/257000/1420909/?version=1&lang=_e
European IPPC Bureau – Producer of BAT Reference Documents, http://eippcb.jrc.es

8 Directives

COUNCIL DIRECTIVE 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control
DIRECTIVE 2000/76 of the Council and the European Parliament of 4 December 2000 on the incineration of waste
DIRECTIVE 2001/80 of the Council and the European Parliament of 23 October 2001 on the limitation of emissions of certain pollutants into the air from large combustion plants
COMMISSION Decision of 17 July 2000 on the implementation of a European pollutant emission register (EPER)according to Article 15 of Council Directive 96/61/EC concerning integrated pollution prevention and control (IPPC)
REGULATION (EC) No 166/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC

KH-30-08-212-EN-C

ISBN 978-92-79-08299-3