



**Policy Brief for the EP Environment Committee
EP/IV/A/2003/09/01**

**Progress in the Implementation of Five
Environmental Directives in the
Acceding Countries**

Brief number 06/2003

By

Andrew Farmer (IEEP)

With

**Eva Kružiková
and Eva Adamová**

(Institute for Environmental Policy, Prague)

Andrzej Kassenberg

(Institute for Sustainable Development, Warsaw)

15 December 2003



SUMMARY

1 This brief examines the current state of implementation of the urban waste water treatment (UWWT) Directive (91/271), large combustion plant (LCP) Directive (2001/80), solvent emissions Directive (1999/31), landfill Directive (1999/13) and IPPC Directive (96/61) in the Acceding Countries. It reviews the current state of transposition, aspects of practical implementation, investments required and administrative capacity for enforcement, etc. The briefing provides, for each Directive, a short overview for the ten Acceding Countries, with more detailed case examples for the Czech Republic and Poland.

2 The status of implementation of the five Directives is quite different. Extensive transition periods have been agreed for the UWWT Directive for all countries, but none for the solvent emissions Directive. Some countries also have transition periods for the landfill, LCP and IPPC Directives. It is also important to note that the requirements of the Directives impose different timetables on the countries. For example, IPPC requires BAT to be applied by 2007, but the obligations of the landfill Directive are appropriate at accession (except where transition periods have been agreed). Thus implementation of the five Directives is at different stages.

3 The 2003 Commission regular report on each country made limited comments on each Directive (none at all on UWWT), focusing on remaining transposition problems and very limited issues of practical implementation.

4 The UWWT Directive is a major challenge to most countries. Legal transposition seems to be complete. However, practical implementation has just begun, not least because of the transition periods, some lasting to 2015. The cost estimates for the Directive have varied significantly, though recent national cost estimates are now thought to be likely to be relatively reliable. For many countries this is the most expensive Directive to implement and there are serious concerns over how all of the investment will be met. Usually this is broken into state funds, loans and user charges. However, these have yet to be confirmed or accepted.

5 In the Czech Republic transposition of the UWWT Directive is complete and extensive analysis of infrastructure and the environment is complete. The only significant concern is to achieve the necessary investment, rather than institutional capacity, etc. A similar situation is found in Poland, which has developed a national plan for the Directive. A legal problem does exist in that local governments are not under a legal obligation to develop collection and treatment systems. Coupled with the large cost estimates and concern over the impact of user charges on poor communities, this poses serious questions over longer-term implementation.

6 The LCP Directive imposes major burdens on the energy sector of Acceding Countries, which is dominated by older non-compliant plants. Transposition is still required in Cyprus, Estonia, Lithuania, Malta and Slovenia. The costs of the Directive falls heavily on the energy sector itself, although this also depends upon projects for energy use, which are being questioned. Costs, while significant, are lower than for UWWT and IPPC. As the Directive is to be implemented entirely within the context of IPPC, it should not impose greater administrative burdens than already occur for that Directive.

7 In the Czech Republic transposition is complete and although significant investment costs (\$1,600 million) are required, authorities do not express concern with implementation. Transposition is also largely complete in Poland. A problem has arisen in that while transition periods for the Directive were agreed, the plants will not be able to emit acid gases as they theoretically could have been able, due to limits imposed on the country as a whole by the national emission ceilings Directive. Cost estimates vary from €5.6-7.8 billion and will require closure of many plants. State aid to support this is allowed, but Poland is also examining new measures such as an emission trading scheme to help achieve the objectives.

8 The solvent emissions Directive has been transposed in all countries except Estonia and, partially, Poland. Overall, Acceding Countries do not report significant problems with the implementation of the Directive. However, significant problems will occur with the large number of small installations affected, which are not regulated under IPPC. This will pose financial costs on small businesses and severe capacity problems for, usually, local administrations.

9 The Czech Republic will implement the emission limit values rather than national plan. The overall cost estimate for the private sector is €129 million and the authorities do not suggest that implementation problems will occur. In Poland it is estimated that the Directive will affect 20,000 installations – 17,000 of which are small vehicle coating stations. This illustrates the potential impact on small business. It is suggested that the costs for such businesses will be difficult to meet and the capacity of regional authorities to issue permits and ensure compliance is very limited, indicating the likelihood of future compliance problems.

10 The landfill Directive is a major challenge to Acceding Countries, not just for prescribing how landfills are to be constructed and operated, but also for its implications for waste management generally in order to meet biodegradable waste reduction targets, etc. These countries have poor levels of waste collection, low levels of recycling, low public awareness and inadequate disposal facilities. Costs for implementation are high, in this case not just for constructing new, compliant landfills, but also direct costs for closing older landfills. Given that much waste management is a local issue, there is serious concern over the capacity of such administrations to implement the Directive and, where costs are being passed on to households, concern over the potential for a rise in illegal dumping.

11 The Czech Republic has transposed the landfill Directive and has no transition period. It has a national waste plan and it has already introduced landfill charging that will progressively increase. A problem has arisen, however, in that the Parliament has failed to pass a new Act, which would license landfills from 1 January 2004, after the current permits cease in 2003. Thus from 1 January 2004 these will be illegal and this needs to be addressed. Overall cost estimates are now thought to be lower than expected, due to a change in disposal plans, in that fewer incinerators are now expected to be built. Poland has problems in completing and integrating regional and local waste planning with the national plan. The transition period agreed has interim targets, but there is concern that these will not be met. The regional and local administrations are ill equipped to manage waste.

12 IPPC has presented a major challenge to Acceding Countries and most have responded by radically changing their industrial regulation processes. Transposition is complete in all except Slovenia. In both regards this places them ahead of many Member States. There are many uncertainties with regard to implementation, not least the detailed

interpretation of BAT and how far lower cost options will be found to meet operating requirements. There are significant administrative capacity concerns for most countries, due to problems with staff numbers, poor co-ordination, etc.

13 Implementation of IPPC in the Czech Republic has produced a complex system involving a range of authorities leading to confusion and capacity problems. Currently it is argued that cost estimates for operators are not possible to determine. In Poland permitting and inspection responsibilities have largely been devolved to regional and local administrations, which have major capacity problems. It is the most costly Directive for Poland and there are fears that inadequate supervision will lead to significant compliance problems.

POLICY BRIEF FOR THE EP ENVIRONMENT COMMITTEE
EP/IV/A/2003/09/01

**PROGRESS IN THE IMPLEMENTATION OF FIVE ENVIRONMENTAL
DIRECTIVES IN THE ACCEDING COUNTRIES**

CONTENTS

1	Introduction	1
2	Initial Comments	1
3	Overview from the European Commission	2
4	Directive 91/271/EEC Concerning Urban Waste Water Treatment	4
4.1	<i>Introduction</i>	4
4.2	<i>Overview</i>	4
4.3	<i>Administrative capacity</i>	7
4.4	<i>Czech Republic</i>	8
4.5	<i>Poland</i>	9
4.6	<i>Conclusions</i>	11
5	Directive 2001/80/EC on the Limitation of Emissions of Certain Pollutants into the Air from Large Combustion Plants	12
5.1	<i>Introduction</i>	12
5.2	<i>Overview</i>	12
5.3	<i>Administrative capacity</i>	13
5.4	<i>Czech Republic</i>	13
5.5	<i>Poland</i>	14
5.6	<i>Conclusions</i>	15
6	Directive 1999/13/EC on the Limitation of Emissions of Volatile Organic Compounds due to the use of Organic Solvents in Certain Activities and Installations	16
6.1	<i>Introduction</i>	16
6.2	<i>Overview</i>	16
6.3	<i>Administrative capacity</i>	16
6.4	<i>Czech Republic</i>	17
6.5	<i>Poland</i>	18
6.6	<i>Conclusions</i>	19
7	Directive 1999/13 on the Landfill of Waste	19
7.1	<i>Introduction</i>	19
7.2	<i>Overview</i>	19
7.3	<i>Administrative capacity</i>	21
7.4	<i>Czech Republic</i>	21
7.5	<i>Poland</i>	22
7.6	<i>Conclusions</i>	25
8	Directive 96/61/EC on integration pollution prevention and control (IPPC)	25
8.1	<i>Introduction</i>	25
8.2	<i>Overview</i>	25
8.3	<i>Administrative capacity</i>	28
8.4	<i>Czech Republic</i>	29
8.5	<i>Poland</i>	31
8.6	<i>Conclusions</i>	33

1. Introduction

On 1 May 2004 ten new Member States will join the European Union (EU). EU membership requires that the new Member States fully implement all EU legislation that is in force upon accession, although in a few cases transition periods have been agreed for individual countries and activities that allow additional time for compliance. The EU environmental *acquis* has presented a major challenge to the new Member States, requiring significant investment and changes in approach not only to the protection of the environment, but also to the management of other sectors, such as energy and agriculture, which impact upon the environment. Concern has been expressed that the new Member States will continue to have problems in implementing the *acquis* after accession. Thus, even with EU laws fully transposed into national legislation, practical compliance could be incomplete.

As a result the European Parliament's Committee on the Environment, Public Health and Consumer Policy has requested a written briefing on the practical problems and prospects concerning the implementation in the Acceding Countries of five environmental Directives:

- Directive 91/271/EEC on urban waste water treatment (UWWT);
- Directive 1999/31/EC on the landfill of waste;
- Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants (LCP);
- Directive 1999/13/EC on the limitation of emissions of volatile organic compounds (VOCs); and
- Directive 96/61/EC on integrated pollution prevention and control (IPPC).

In particular the briefing should analyse:

- progress already made in terms of legislation adopted;
- progress made in terms of evidence of enforcement; and
- evidence of problems likely to arise through the inadequate finance available for necessary infrastructure investment and poorly functioning or non-existent administrative capacity.

The five Directives represent a range of implementation issues for the new Member States. Some, such as the landfill Directive, have practical obligations, many of which need to be in operation on the date of accession. Others, such as IPPC, only require practical implementation for new installations by the date of accession and, therefore, there is concern over future implementation after May 2004, especially for existing installations.

This briefing provides a short overview of the situation. It presents general information on the state of implementation for the ten Acceding Countries as a whole and, as case studies, more detailed information about the situation in the Czech Republic and Poland.

2. Initial Comments

There are a number of constraints in determining the progress made by the Acceding Countries in implementing the Directives. Legal transposition can be assessed more easily than practical implementation. Practical enforcement has only just begun, such as the first IPPC permits. As far as we can determine, enforcement issues have not yet reached national courts, etc. This is to be expected, given that implementation has only just begun, existing

activities are mostly still to be affected by the legislation and, even if enforcement problems have been found, legal action can take time. Administrative capacity assessments are also complex. However, significant work has been undertaken on this issue.

A number of studies have sought to estimate the costs of compliance with selected parts of the environmental *acquis*. Often studies show more than one estimate for a Directive for a country and there are often quite large differences in the expected sums. It is beyond the scope of this briefing to examine the detailed basis for the calculations for these estimates. However, it is important to note that they exist and, therefore, that such sums should be treated only as estimates, rather than absolute detailed costings. If one takes IPPC, for example, the investment costs depend upon the requirement to implement BAT. However, it is still not clear what BAT means for different types of installation or how it will be interpreted on a case by case basis. Given the relatively few draft BREFs available when some estimates were made, the uncertainty only increases.

It is also apparent from Member State experience that the estimate of compliance costs upon adoption of a Directive and subsequent real costs are often quite different – industry can find alternatives to heavy investment or, alternatively, implications of compliance can be underestimated. It is also important to note that, of the five Directives, only the UWWT Directive has been in the process on implementation in the Member States for a number of years prior to approximation studies in the Accessing Countries. Thus transfer of understanding (technical, financial, etc) from the Member States to the Accessing States has to take account of the fact that compliance in the Member States has been known to take some years to ‘get right’.

In the accession negotiations transition periods were agreed with the Accessing Countries allowing additional time for the implementation of specific Directives in individual cases. Of the five Directives being considered here, only for the solvent emissions Directive were no transition periods agreed. The details of the remainder are given in Table 1.

Table 1 Transition Periods Agreed for the Five Directives

Country	UWWT (91/271)	Landfill (1999/31)	LCPD (2001/80)	IPPC (96/61)
Cyprus	2012		See note	
Czech Republic	2010		2007	
Estonia	2010	2009 (oil shale only)	2015	
Hungary	2015		2004	
Latvia	2009		2015	
Lithuania	2015	2004		2010
Malta	2007		2005	
Poland	2015	2012		2010
Slovakia	2015		2010	2011
Slovenia	2015			2011

Note: The LCP Directive has given specific emission limits for the Dhekelia and Vasiliko combustion plants (Article 4(3) and Annex IV, part A) in Cyprus.

3. Overview from the European Commission

In November 2003 the Commission published its regular reports on progress made by each of the Accessing Countries. Table 2 provides the comments made by the Commission on each of

the Directives. Interestingly, no specific comments were made on UWWT and comments on the LCPD and solvent emissions Directive only relate to continued need for transposition. Most comments were reserved for the IPPC Directive, in particularly stressing the need for enhanced capacity to issue permits and for the permitting process to proceed with minimum delay. While the Commission reports do express serious concern over the state of implementation of the environmental *acquis* in some Acceding Countries, much of this concern is focused on areas such as nature protection.

Table 2 Comments Made on Specific Directives for Each Country in the November 2003 Commission Reports

Country	Landfill (1999/31)	LCPD (2001/80)	Solvent emissions (1999/13)	IPPC (96/61)
Cyprus		Transposition required.		Need to continue to issue permits subject to IPPC rules
Czech Republic	Legislation on financial security of landfills required.			More attention required to ensure effective implementation. Capacity to issue permits has been strengthened, but particular attention needs to be paid to ensure permits are issued and complied with for all new installations by accession and for existing installations by 2007.
Estonia	Implementing legislation required.	Implementing legislation required.	Implementing legislation required.	Permits need to be issued and complied with for all new installations by accession and for existing installations by 2007.
Hungary				Greater efforts (staffing and training) are required to ensure permits are issued and complied with for all new installations by accession and for existing installations by 2007.
Latvia	Need to construct hazardous waste and asbestos landfills by the end of 2004.			Permits need to be issued and complied with for all new installations by accession and for existing installations by 2007.
Lithuania		Transposition is still required.		Permits need to be issued and complied with for all new installations by accession and for existing installations by 2007. The capacity to issue permits needs to be increased.
Malta	Permit conditions for landfills need to be established by accession.	Transitional arrangement for LCP needs to be transposed.		A licensing strategy for IPPC permits needs to be developed and permits issued and complied with by the deadlines.
Poland			Transposition is still required.	While administrative capacities are in place, enhanced efforts are required to ensure permits are issued and complied with for all new installations by accession and for existing installations by 2007.
Slovakia				While administrative capacities are in place, enhanced efforts are required to ensure permits are issued and complied with for all new installations by accession

				and for existing installations by 2007.
Slovenia	Implementing legislation regarding an amendment to the Environment Protection Act on financial security for landfills is needed.	Transposition is still needed. Establishment of licensing systems for LCPs is needed.		Implementing legislation on IPPC permit procedures is needed. Administrative capacities are in place, but delay in transposition means that the capacity to issue permits and ensure compliance needs to be enhanced to meet deadlines. Permits need to be issued and complied with for all new installations by accession and for existing installations by 2007. Arrangements for stakeholder participation in licensing are needed.

Note: Only comments made on these specific Directives are included. Thus many comments made on administrative capacity in the reports refer to sectors, such as ‘waste’ and not to the landfill Directive. These are not included here. Also reference in the reports to transitional arrangements are not included as these add nothing to Table 1. No specific comments were made in relation to the UWWT Directive.

The Enlargement Unit of DG Environment will continue to monitor progress in the Acceding Countries. From the date of accession it will have no further contact, with compliance being assessed by the same desk officers as with other Member States. Already the Enlargement Unit is preparing the desk officers, passing over information on the Acceding Countries. Interestingly, it is understood that the quantity of information available on these countries can outstrip that available for existing Member States, due to the extensive work undertaken in the last few years. However, this changeover and possible change in priorities might affect the degree of effort that the Commission puts into compliance assessment after accession.

4. Directive 91/271/EEC Concerning Urban Waste Water Treatment

4.1 Introduction

The objective of the Directive is to protect the environment from the adverse effects of the waste water discharges. It achieves this through specific requirements to establish sensitive areas, provide waste water collection systems and appropriate (to size and sensitivity of receiving waters) treatment systems, and to ensure compliance with these requirements.

4.2 Overview

The UWWT Directive presents major challenges to the Acceding Countries. These relate both to the establishment (or improvement) of waste water collection systems and to the development of the necessary levels of treatment to comply with the Directive. The majority of the population of the ten Acceding Countries live in catchments which are considered to be sensitive areas (not least the entire Baltic Sea catchment). This means that the minimum level of treatment required includes nutrient removal. It is also still not clear what levels of disinfection will be required across all of the countries in order to meet bathing water quality standards as these are on a case by case basis.

Legal transposition seems to be complete across the Acceding Countries. However, practical implementation is still far from complete. All Acceding Countries have transition periods, half of them up to 2015. This provides significant additional time to identify the sources of

investment needed and to clarify any specific requirements, such as the extent of sensitive area designations.

Table 3 provides an overview of the estimated costs of implementing the Directive. These are derived from a variety of sources. Cost estimates vary widely between the countries and between estimates for individual countries. Such variations depend upon a number of practical assumptions (eg size of collection systems in relation to treatment plant facilities), which are still being determined. In any case, the level of investments required is significant and represents one of the major costs of implementing the environmental *acquis* as a whole. The sources of such funding have been identified in some cases (see the Czech and Polish case studies below for more detail), but these indicate a variety of approaches across the countries, ranging from a major reliance on investment from the state budget, through to seeking to obtain much of the funds through the use of a water tax. We are, however, unaware of studies which have sought to determine whether such investment strategies are realistic.

A report by Milieu in 2003¹ examined how realistic the costs for the UWWT Directive are for the Acceding countries. This compared cost estimates to those for existing Member States, noting that some Acceding Countries (eg the Czech Republic) already have better connection and treatment rates per capita than some Cohesion countries (eg Portugal). It concluded that:

- recent national cost estimates are higher than earlier international analyses;
- national cost estimates are broadly consistent (on a per capita basis) with those for Cohesion countries, but lower than for other Member States; and
- national estimates for the Czech Republic, Estonia, Poland and Slovakia (on a per capita basis) are broadly consistent with comparable Member States.

It seems, therefore, that national cost estimates are probably reliable and demonstrate the evolution of understanding that has taken place in the Acceding Countries. However, there is debate among some Acceding Countries (and others) concerning the appropriateness of the detailed requirements of the Directive. In particular, the dispersed population in many rural areas in central and eastern Europe is posing problems for the construction of collection and treatment systems and it is being argued that innovative low-technology (and lower cost) options, such as artificial wetlands, might be a more appropriate means of achieving the same water quality objectives (and provide additional biodiversity benefits). If this were the case, then the requirements of the Directive would need to be revisited by the EU institutions.

Table 3 Estimates of Costs for Implementing the UWWT Directive

Country	
Cyprus	MANRE estimates cost of implementing the UWWT Directive is €460 million for collection systems and €210 million for treatment. 27% will come from state budgets, 59% from commercial loans and 68% from local Sewage Boards via loans and user charges.
Czech Republic	World Bank study estimated that total initial investments in waste water treatment will be €878-1,075 million, followed by annual operating and maintenance costs of €62-100 million. A further study has estimated costs of compliance with the Directive at €1,164 million. Latest national estimates are €4,000 million
Estonia	Estonian estimates of the costs of implementing the UWWT Directive are €322.92 million. TME (2000) study estimated that investments in waste water treatment would be €300

¹ Milieu 2003. The enlargement process of the EU: consequences in the field of environment. European Parliament. ENVI 106 EN.

	million. A further study has estimated costs of compliance with the Directive at €168 million.
Hungary	World Bank study estimated that total initial investments in waste water treatment will be €2,100-4,300 million, followed by annual operating and maintenance costs of €158-200 million. TME (2000) study estimated that investments in waste water treatment would only be €1,678 million. The ISPA Strategy estimates cost of implementing the UWWT Directive alone is €3,789 million. A further study has estimated costs of compliance with the Directive at €1,678 million.
Latvia	1999 PHARE DISAE report (LAT-108) estimated costs of compliance with the UWWT Directive at €484 million. TME (2000) study estimated that investments in waste water treatment would need to be €579 million. A national estimate for investment requirements is €545 million.
Lithuania	Compliance costs for the UWWT Directive have been estimated at €525 million (€130 million for treatment plants and €395 million for collection systems). The total annual cost is estimated at €70 million. A further study has estimated costs of compliance with the Directive at €435 million.
Malta	It is estimated that the cost of compliance with the UWWT Directive will be €98 million.
Poland	Phare DISAE 1999 project estimated costs for waste water treatment to be €1,287 million (2000), €3,831 million (2005) and €6,414 million (2010). TME (2000) estimated that required investments for waste water treatment to be €6,414 million. Latest national estimates are €9,100 million. Estimated sources of finance for compliance with the UWWT Directive are: private sector (38.5%), central budget (7%), regional budget (4%), municipal budget (2.5%), environmental fund (23%), credits and loans (7%), foreign sources (11%), other (7%).
Slovakia	The Slovak Water Research Institute estimated that the total costs of implementing the UWWT Directive to be €3,300 million. A further study has estimated costs of compliance with the Directive at €499 million. A 2002 DANCEE project estimates compliance costs to be €2,260 million.
Slovenia	Slovenian estimates of the costs of investments in waste water collection and treatment for 1999-2006 are €456 million. Funding sources for this are estimated to be: waste water tax (40%), state budget fund (3.5%), municipal budget funds (10%), foreign grants (12.5%), other sources (34%). TME (2000) study estimated that required investments in the sewage network only would be €914 million.

In November 2003 WWF produced its latest water and wetland index examining progress in water management in a range of countries across Europe², including some Acceding Countries. The report does not address *acquis* implementation per se, but elements of it do consider issues such as public participation and integrated management, which are fundamental components of water management, including integration of the UWWT Directive. It is important to note that the report presents the opinion of WWF members in each country, ie it is not an objective comparison between countries (what is fair in one country could be considered poor in another) and is, therefore, of limited comparative value. Having said this, the scores of Acceding Countries are presented in Tables 4 and 5. These show generally poor scores both for integration and public participation, which do need to be addressed. However, it should be noted that, overall, the existing Member States also have much improvement to make.

² WWF (2003) *WWF's Water and Wetland Index*. WWF, Paris.

Table 4 Integrated Water Management: scores presented as 2 (very good), 1 (good) 0 (fair), -1 (poor), -2 (very poor).

Country	Integrated approach in water policy	International co-operation	Co-ordination of authorities of different types of water bodies
Estonia	0	-1	-1
Hungary	0	-1	-1
Latvia	-1	-2	-1
Poland	-1	0	0
Slovakia	-1	1	-1
EU average (13-14 Member States' reports)	-0.71	0.38	-0.93

Table 5 Public Participation in Water Management: scores presented as 2 (very good), 1 (good) 0 (fair), -1 (poor), -2 (very poor).

Country	Information provisions	Public consultation	Active involvement
Estonia	0	0	0
Hungary	1	-1	-1
Latvia	-2	-2	-2
Poland	0	-1	-2
Slovakia	0	-1	-2
EU average (14 Member States' reports)	0	0.5	-0.43

4.3 Administrative capacity

The UWWT Directive imposes a number of requirements on public authorities in Member States. These fall into two areas.

- Prior assessments, ie determining the necessary infrastructure requirements and analysis of receiving waters to determine sensitive and less sensitive areas.
- Subsequent enforcement of operating conditions of WWT plants.

Much of the first of these requirements has already been undertaken by authorities, supported by external projects and in negotiation with the Commission. In other words the obligations on the Accessing Countries have largely been determined. The second requirement comes into operation as UWWT plants are upgraded to meet Directive requirements and, therefore, obligations will come on stream up to the end of transition periods. While the Directive establishes requirements to, for example, reduce phosphorus discharges significantly, this is usually implemented by adopting specific technical tertiary treatment measures. Enforcement is relatively straightforward in such cases and studies have not suggested any real concerns over administrative capacity in these cases. Enforcement of the UWWT poses far fewer problems than, for example, the complexities of the IPPC Directive.

4.4 Czech Republic

4.4.1 Transposition

The Czech Republic has a transition period for this Directive to 31 December 2010. The Directive has been transposed by:

- Act 254/2001 S.B., on waters and on changes of certain acts (Water Act).
- Act 274/2001 S.B., on water supply and sewerage systems and on changes of certain acts (Act on water supply and sewerage systems).
- Government Regulation 61/2003 S.B., on standards and values of admissible pollution of surface and waste waters, requirements for the content of applications for waste water discharges to surface waters and to sewerage systems and on sensitive areas.

4.4.2 Implementation measures

The whole territory of the Czech Republic is designated as a sensitive area. A 2000 study showed that while 18 agglomerations greater than 10,000 pe will comply with the requirements of the Directive from 31 December 2002, 36 other agglomerations greater than 10,000 pe and all 73 agglomerations greater than 2,000 pe will be able to comply with these requirements only from 31 December 2010. Overall this represents waste water from 11 million pe.

An action programme of construction of sewerage in agglomerations greater than 2,000 pe was approved by the government as a part of the updated Strategy of financing of the Directive and the implementation of the programme is being carried out according to approved schedules.

The updated strategy of financing and a concept of financial support for the construction, reconstruction and intensification of urban waste water treatment plants in agglomerations over 2000 pe was established and is being carried out.

For waste water treatment plants for agglomerations greater than 10,000 pe:

- the analysis of the situation was completed in 2000;
- the adjustment of permits to discharge waste water to sensitive areas is being carried out by competent authorities;
- the Programme of reconstruction and intensification of urban waste water treatment plants was approved and is being implemented to schedule; and
- regular checks of implementation of relevant permits are carried out by the Czech Environmental Inspectorate.

For agglomerations of lower than 2,000 pe in sensitive areas:

- the analysis of the situation was completed in 2000; and
- a programme to implement adequate waste water treatment including updated state of financing and financial support was established and is being implemented in accordance with the schedule.

In order to ensure monitoring of plants to ensure they meet requirements the following are occurring:

- the updating of technical norms and rules is being carried out;
- guidelines for competent permitting authorities concerning issuing permits for construction and operation of plants and sewerage systems were issued by the Ministry of Agriculture; and
- permits are being issued that ensure compliance with the Directive and the regular checks of permits take place.

Requirements for the discharge of industrial waste water and sludge management are being implemented by:

- the analysis of the situation was completed in 2000;
- competent water management authorities issue permits for construction and operation of waste water treatment plants; and
- regular checks of permits take place.

The key competent authority responsible for the implementation of the Directive is the Ministry of Agriculture. The Ministry of Environment is responsible for the following issues: sensitive areas, setting up requirements for the quality of discharged waste waters, disposal of sludge, discharges waste waters from industrial pollution sources, monitoring of the water quality and reporting to the Commission. Regional authorities, municipalities and the Czech Environmental Inspectorate also have specified competencies.

The problem of the implementation of this Directive is the costs of investments, particularly for waste water treatment plants. According to the water management policy in relation to municipalities, a mix of different instruments will be used: changes of permits, economic instruments, charges for pollution discharges, and programmes of support for sewerage systems and waste water treatment plants from national financial sources (National Environmental Fund, state budget). The estimates (from 1999) of necessary investments costs are about 65 billion CZK³ (€ 2,100 million) in the private sector and about 60 billion CZK (€ 1,900 million) from the state budget.

4.5 Poland

4.5.1 Introduction

During negotiations Poland received a 13-year transition period (to 2015). There are some interim objectives for years 2005, 2010 and 2013 including the size of agglomerations and relating to these, percentages of waste water loads.

4.5.2 Transposition

The requirements of the Directive are fully transposed into Polish law by:

- Act of 18 July 2001 Water Law,
- Act of 7 June 2001 on Collecting Delivery of Water and Sewage,

³ the current exchange rate 1€ =31,5 CZK

- Decree of Minister of Infrastructure of 17 October 2002 on conditions of the disposal of waste water into collecting stations,
- Decree of Minister of Infrastructure of 20 July 2002 on methods of fulfilment of duties of deliverers of industrial waste water and conditions on the disposal of waste water into sewage,
- Decree of Minister of Environment of 1 August 2002 on urban sludge,
- Decree of Minister of Environment of 23 December 2002 on criteria identifying sensitive areas for pollution caused from agricultural sources,
- Decree of Minister of Environment of 29 November 2002 on conditions of the disposal of waste water into water or the ground and on substances specially dangerous for the water environment, and
- Decree of Minister of Environment of 31 January 2003 on acceptable amounts of substances, which can be conducted into industrial waste water.

4.5.3 *Implementation*

To meet the requirements of the Directive, it is necessary to build and modernise waste water plants and collecting systems in 1,378 agglomerations, including 1,163 waste water plants in 1,068 agglomerations and about 21,000 km of collecting systems.

The National Programme of Municipal Waste Water Treatment (NPMWWT) has been finalised by the Ministry of Environment and it is to be approved by the Cabinet by the end of 2003. This provides information about building or modernising waste water plants and collecting systems in the context of interim objectives. The NPMWWT is the first stage of implementation. Local authorities should prepare local programmes, showing costs and sources of financing investments. The NPMWWT covers:

- the elaboration investment solutions for local authorities and water-supply firms;
- the assurance of the financing of investments, including use of EU funds;
- the preparation of the investment schedule for each agglomeration after co-operation with local authorities and water-supply firms; and
- capacity enhancement of authorities to monitor and report the effects of the nitrogen and phosphorus reduction in sewage.

Implementing such expensive and long-term activities is beyond the financial possibilities of local authorities. The Directive is one of most expensive (€9.1 billion) and requires the longest time to adopt.

The law has not placed clear obligations on local communities to develop waste water plants and collecting systems. The NPMWWT will put the obligations on the state administration but not on self governments, yet waste water plants and collecting systems are the responsibility of local self-governments, not the state administration. In this context nobody can legally push the local self-governments to build or modernise the waste water plants or collecting systems to fulfil the requirements of the Directive.

At present the number of projects is too low compared to the demand in the draft NPMWWT. One of the barriers for local communities is lack of credit ability (in Poland the limit for credits for local communities is no more than 60 per cent of the yearly budget). Another barrier is the high cost of project preparation.

It is expected that the incomes of environmental funds will be lower and the abilities of local authorities to finance local infrastructure will decrease. Thus the role of private sector (waste water enterprises) should increase. These enterprises will transfer a large part of the costs to consumers through water prices (about a 10-30 per cent rise). In regions of high unemployment this is highly problematic for poor families. The legality of support from environmental funds (with the exception of the EcoFund) could also create a problem, because EU regulations on state aid will replace the Polish Act on admission of public aid for enterprises by accession. It is also important to note that the needs of urban and rural areas are very different and these need to be accounted for in investment strategies.

4.5.4 Conclusions

To improve implementation the following are probably necessary:

- a change in the status of NPMWWT to an obligatory legal act;
- placing a penalty on local self-governments for not building or modernising waste water plants or collecting systems, and transferring the money to environmental funds;
- creating a system of financial support for local self-governments. The elements of such a system already exist. The National Fund for municipal projects with environmental effects has provided the opportunity, before the end of 2005, for co-financing (up to 50 per cent) preparation work but no more than 2.5 per cent of total investment costs in the form of loans. The loans will be partly remitted if the environmental objectives are achieved on time.
- increasing cooperation between the municipalities and state administration, including with more direct and reliable information; and
- local budgets cannot cover the necessary investments - these should be financed by water users (currently some categories of users do not pay for discharges of pollution). The new system needs to be developed to introduce the polluter pays principle but taking into account local conditions and social issues. The system needs to be flexible and implementable.

4.6 Conclusions

The UWWT Directive is a major challenge to most countries. Legal transposition seems to be complete. However, practical implementation has just begun, not least because of the transition periods, some lasting to 2015. The cost estimates for the Directive have varied significantly, though recent national cost estimates are now thought to be likely to be relatively reliable. For many countries this is the most expensive Directive to implement and there are serious concerns over how all of the investment will be met. Usually this is broken into state funds, loans and user charges. However, these have yet to be confirmed or accepted.

In the Czech Republic transposition is complete and extensive analysis of infrastructure and the environment is complete. The only significant concern is to achieve the necessary investment, rather than institutional capacity, etc. A similar situation is found in Poland, which has developed a national plan for the Directive. A legal problem does exist in that local governments are not under a legal obligation to develop collection and treatment systems.

Coupled with the large cost estimates and concern over the impact of user charges on poor communities, this poses serious questions over longer-term implementation.

5 Directive 2001/80/EC on the Limitation of Emissions of Certain Pollutants into the Air from Large Combustion Plants

5.1 Introduction

The objective of the Directive is to control pollution from large combustion plants with a rated thermal input equal or exceeding 50 MW in order to reduce acidifying emissions from the above mentioned plants. The specific requirements include minimum emission limits from specified existing and new LCPs, licensing requirements and to ensure full compliance.

5.2 Overview

The LCP Directive poses significant burdens on the Acceding Countries. The energy sector of many of these countries is dominated by old combustion processes with inadequate pollution control technology. While a number of these have been closed down or are operating at lower capacity, implementation of the Directive will still mean significant investment in new technology. The estimated costs of implementing the Directive (Table 6) are significant, but, for most countries, lower than Directives such as UWWT and IPPC. Two countries have very significant cost projections – the Czech Republic and Poland – and these are covered in the case studies below.

The projected costs of implementing the Directive not only reflect the need to upgrade existing power plants, but they also need to reflect the projected requirements for energy production in the future. Figures for energy production vary significantly. For example, in 1998 the capacity of the power sector in Cyprus was 690 MWth and this is projected to increase to 1,100 MWth in 2008, representing an annual growth of 4.77 per cent. Figures for Slovakia over the period 1995 to 2020 predict an annual growth in the power sector of 1.47 per cent, including a switch to gas from 11 per cent of the sector in 1995 to 42 per cent in 2020. While the switch to gas would assist in reducing emissions, the projected energy growth is probably unrealistically low.

Table 6 Estimates of Costs for Implementing the LCP Directive

Country	
Cyprus	See IPPC table.
Czech Republic	TME (2000) study estimated that the costs of compliance would be €1858 million.
Estonia	Cost estimates for the Eesti and Balti power plants for compliance with the Directive are estimated at a total of €170 million. TME (2000) study estimated that the costs of compliance would be €312 million.
Hungary	Compliance with the Directive is estimated to cost €76-113 million. TME (2000) study estimated that the costs of compliance would be €878 million.
Latvia	TME (2000) study estimated that the costs of compliance would be €43 million. Latvia estimated the costs of applying BAT to LCPs to require €210-320 million in investment.
Lithuania	TME (2000) study estimated that the costs of compliance would be €74 million.
Malta	Uncertain.
Poland	Poland spent over €2,200 million on compliance between 1990 and 1999 and it is estimated that €1,500-5,500 will need to be spent between 2000 and 2010. TME (2000) study estimated that the costs of compliance would be €3456 million.

	Recent national estimates for compliance costs range from €5,600 to 7,800 million.
Slovakia	Costs of compliance are estimated at around €46-129 million per year until 2010. TME (2000) study estimated that the costs of compliance would be €796 million.
Slovenia	TME (2000) study estimated that the costs of compliance would be €180 million.

5.3 Administrative capacity

LCPs are all IPPC installations and, therefore are to be permitted and inspected in this context. The LCP merely sets minimum emission limit values to be achieved. Thus the Directive should not impose additional significant administrative capacity requirements and comments on this issue can be found in the section on IPPC.

5.4 Czech Republic

5.4.1 Transposition

The Directive was transposed by:

- Act 86/2002 S.B., on the air protection and on changes of certain other acts;
- Act 100/2001 S.B., on environmental impact assessment and on amendments of certain relevant acts;
- Regulation 352/2002 S.B., establishing emission limits and further conditions for operation of other stationary sources polluting air, in effect from 14 August 2002; and
- Decree of the Ministry of Environment 356/2002 S.B., establishing list of pollutants, general emission limit values, form of handing over reports and information, identifying the volume of discharged pollutants, the darkness of smoke, permissible level of smell nuisance and smell intensity, conditions for the authorisation of persons, requirements for managing operational evidence of air pollution sources and conditions of their application (in effect from 14 August 2002).

The Czech Republic has a transition period for implementation of this Directive to 31 December 2007 because of two new boilers of more than 50 MW for existing sources that were constructed after 1 July 1997.

5.4.2 Implementation

The key enforcement authority is the Ministry of Environment, which co-ordinates activities of all ministries and all other central administration bodies within the scope of environmental protection. Another important enforcement body is the Czech Environmental Inspectorate. It controls the sources of air pollution and is empowered to impose sanctions and remedial measures. The Czech Hydrometeorological Institute ensures the emission inventory and its assessment and projection of emission balances. The Ministry of Industry and Trade is responsible (among others) for internal trade, protection of consumers, foreign trade, support of export, legislation concerning technical norms and inspection in this respective area. The Ministry of Regional Development is the central administrative body responsible also for regional development including the support of undertaking, land use planning, and investment policy. Regional and municipal authorities also have responsibilities for implementation.

The investment costs of implementation in the private sector (2 power plants) are about 1,000 million CZK (€ 32 million), which will increase to 50 billion CZK (€ 1,600 million) from 2016. As for the private sector it is not possible to estimate costs because the Czech Republic has chosen to implement the Directive by using a national programme.

The Czech Republic does not have substantial problems with implementation. More professionals will be needed in the competent authorities, but according to information from the Ministry of the Environment, they are available.

5.5 Poland

5.5.1 Transposition

Poland has the following transition periods for the LCPD:

- until 31.12.2015 for 36 installations in respect of SO₂;
- until 31.12.2017 for 21 installations in respect of NO_x;
- until 31.12.2017 for 29 installations in respect of dust; and
- until 31.12.2010 for 77 installations in respect of SO₂ and dust.

The Directive is almost fully transposed into Polish law through the following.

- General regulations are transposed by the Environmental Protection Act (27 April 2001).
- Regulations referring to certain activities and obligations connected with emissions from LCP are transposed in particular by the Decree of Ministry of Environment concerning emission standards from installations (4 August 2003).
- Regulations referring to methods of measurement of emissions are transposed by the Decree of the Ministry of Environment concerning requirements in respect of measurement of emissions (13 June 2003).

There is no reference in Polish law to requirements to examine the technical and economic feasibility of providing for the combined generation of heat and power (point (d) of key elements). Formally there is also no legal obligation to prepare a national emissions reduction plan.

5.5.2 Implementation

Taking into account the high costs for the Polish energy sector to comply with the LCPD (estimated at €5.6- 7.8 billions), transition periods were agreed. However, the NEC Directive imposes emission limits for the whole sector – these limits are *lower* than forecasted emissions referring to the transition periods for the LCPD, which means that the energy sector is unable to make full use of the adjustment periods.

Poland declared that compliance would be achieved either in the form of emission standards, or a national emission reduction plan (applying to SO₂ and NO₂). The plan should be presented by the date of accession. By November 2003 no guidelines for the plan have been adopted. Thus there is extremely little time to prepare, consult and accept the plan.

The reduction plan, along with an emission trading scheme, is seen as a tool that – under the conditions of the Directive – shall have the most favourable effects on the energy sector, according to a report.⁴ The report assesses different scenarios in respect of closure of some installations, level of emissions and final energy prices. It concludes that up to 50 per cent of power from existing installations has to be replaced by 2020, as over 80 per cent of plants are older than 15 years. The lowest level of replacement applies to a national emission reduction plan. Additional costs for operators running installations over 100 MW concern the need for continuous monitoring. Progress on this issue is unknown. It should also be noted that only in Poland are energy installations allowed to receive financial support from the state budget of up to 50 per cent of investment costs.

5.5.3 Conclusions

There is an urgent need to prepare, negotiate and accept a national emission reduction plan before accession. In this process many stakeholders need to be involved including business associations, NGOs, financial institutions and representatives of local governments. Each operator also needs to prepare strategic plans, based on the national plan, taking into consideration the remaining operational time and deciding whether an installation should be closed or modernised.

On the basis of current EU energy policy it is necessary to prepare a new long-term strategy for the sector, aimed at fulfilling emission targets, liberalisation processes and development of renewable energy sources.

The National Fund and EcoFund, with cooperation from commercial banks, need to draw up a framework (including allowed state aid) for providing support for installations undergoing technical changes to comply with the Directive.

In the process of privatisation, compliance with the Directive needs to be an important element of negotiations and final agreement.

To achieve the limit of SO₂ emission in 2008, it is necessary to increase the operating time for ‘clean’ installations and reduce the operation time for ‘dirty’ installations, especially those based on lignite. To achieve the limit in 2012 additional investments and activity are needed. One possibility is to introduce an emission trading system for SO₂ and NO_x and some work on this is proceeding.

5.6 Conclusions

The LCP Directive imposes major burdens on the energy sector of Acceding Countries, which is dominated by older non-compliant plant. Transposition is still required in Cyprus, Estonia, Lithuania, Malta and Slovenia. The costs of the Directive falls heavily on the energy sector itself, although this also depends upon projects for energy use, which are being questioned. Costs, while significant, are lower than for UWWT and IPPC. As the Directive is to be implemented entirely within the context of IPPC, it should impose no greater administrative burdens than already occur for that Directive.

⁴ Evaluation of technical, economic and legal conditions of implementing in Poland Directive 2001/80/EC. June 2002. Prepared by the energy sector for the Ministry of Environment and the Ministry of Economy.

In the Czech Republic transposition is complete and although significant investment costs (\$1,600 million) are required, authorities do not express concern with implementation. Transposition is also largely complete in Poland. A problem has arisen in that while transition periods for the Directive were agreed, the plants will not be able to emit acid gases as they theoretically could have been able, due to limits imposed on the country as a whole by the national emission ceilings Directive. Cost estimates vary from €5.6-7.8 billion and will require closure of many plants. State aid to support this is allowed, but Poland is also examining new measures such as an emission trading scheme to help achieve the objectives.

6 Directive 1999/13/EC on the Limitation of Emissions of Volatile Organic Compounds due to the use of Organic Solvents in Certain Activities and Installations

6.1 Introduction

The aim of the Directive is to prevent or reduce the direct and indirect effects of emissions of volatile organic compounds into the environment, mainly into air, and the potential risks to human health, by providing measures and procedures to be implemented for specified activities, in so far as they are operated above specified solvent consumption thresholds. The main requirements of the Directive include requirements to register specified installations, to meet individual emission limits or an equivalent national emission reduction plan, to ensure full compliance with the Directive.

6.2 Overview

Acceding Countries do not report significant problems with the implementation of the solvent emissions Directive. There are no transition periods for the Directive and transposition is largely complete, except for Estonia and Poland (see Table 2). Unlike the other Directives being considered in this briefing, the cost implications have been less apparent in more general studies of approximation. However, the case studies provide information on two countries on this issue.

6.3 Administrative capacity

We are unaware of studies on the administrative capacity that have focused specifically on the solvent emissions Directive. General studies on, for example, industrial regulation capacity have included the Directive, but attention has always been focused on IPPC and the assumption has largely been that the solvent emissions Directive imposes just more obligations for permitting and inspection. The following points, however, should be noted.

- Some installations covered by the solvent emissions Directive are IPPC installations and, therefore, emission limits will be imposed in that permitting process and should not result in any additional capacity requirements.
- A large number of activities affected by the Directive are not covered by IPPC and may be regulated by other authorities (eg local government). Where local government is involved in implementing EU environmental legislation in other areas, concern is always expressed as to capacity to meet its obligations in terms of staffing, training, equipment, etc.
- The solvent emissions Directive is far simpler than IPPC in terms of permitting, ie there is no requirement for complex BAT determinations. This means that, with

sufficient staff, training to meet the obligations of the Directive should be relatively straightforward.

6.4 The Czech Republic

6.4.1 Transposition

It is thought that the Czech Republic does not have any substantial problems with the implementation of this Directive and it does not have a transition period for it.

The Directive was transposed by Act No. 86/2002 S.B., on the air protection and on changes of certain other acts, and particularly by the Decree of the Ministry of Environment No. 355/2002 S.B., establishing emission limits and other conditions of operation of other stationary sources of air pollution emitting volatile organic compounds from processes applying organic solvents and from storage and distribution of petrol. The Decree has been in force since 11 July 2002.

The categories of obligations are covered by Decree 355/2002 S.B. and the first questionnaire concerning years 2002 and 2003 will be submitted to the Commission before 30 September 2005. The regular report on the implementation of the Directive will be submitted to the Commission by the Ministry. The first one will be submitted nine months after accession and then every three years. To elaborate the report the Ministry will co-operate with the Czech Environmental Inspectorate, Czech Hydrometeorological Institute, regions and municipalities.

Sources of VOC emissions must be permitted before their operation begins. The biggest ones are under the regime of Act 76/2001 S.B., on IPPC. Others must be granted a construction permit and an approval from environmental protection authorities.

6.4.2 Implementation

The key enforcement authority is the Czech Environmental Inspectorate, which is empowered to impose sanctions (fines) for breaches of legal obligations which differ according to the kind of obligation breached. It can also impose remedial measures if an operator does not comply or require that the operation cease. Other enforcement authorities include the Ministry of Environment, regions and municipalities. Duties concerning registers, collection and storage of data are carried out by the Czech Hydrometeorological Institute (an organisation established and managed by the Ministry of Environment). The Institute is delegated by the Ministry to manage the Register of emissions and sources of pollution.

The Czech Republic does not consider it necessary to elaborate a national plan, as it will follow an emission limit approach. It is, therefore, only necessary to amend and modify the emission limit values to reach a full compliance with the Directive.

The implementation of the Directive concerns mostly private pollution sources (with the exception of a couple of pollution sources that are the responsibility of the Ministry of Defence and the Ministry of Interior). The investments concerning the private sector are estimated as 4 billion CZK (€ 129 million). The costs to the state budget, including personnel costs, are estimated as 137 million CZK from 2000 to 2005 (€ 4,420,000).

The main implementation difficulty is a technical-economic one concerning the substitution of materials and products with a high content of solvents. It will be necessary to create favourable political and economic conditions to achieve this. The replacement of raw materials with a high content of organic solvents is also not sufficiently supported in the Czech Republic. One option to tackle this problem would be to use tax incentives.

6.5 Poland

6.5.1 Transposition

The requirements of the directive are almost fully transposed into Polish law by:

- general regulations (i.e. public access to information) are transposed by the Environmental Protection Act (27 April 2001);
- regulations referring to certain activities and obligations connected with VOCs emissions are transposed by the Decree of Ministry of Environment concerning emission standards from installations (4 August 2003); and
- regulations referring to methods of measurement of emissions are transposed by the Decree of Ministry of Environment concerning requirements in respect of measurement of emissions (13 June 2003).

There is no reference to a reporting system in Polish law, as are requirements concerning a national plan for reducing emissions.

6.5.2 Implementation

According to a report⁵ there are about 20,000 installations in Poland covered by the Directive, of which 17,000 are small vehicle coating stations. Estimated costs of compliance with requirements of the Directive for all installations are at €26.7 – 100 million.

The small installations are expected to have great difficulties in achieving compliance. So far, no implementation plan has been presented. It seems that for these activities it would be more favourable to adopt a national emission reduction plan. This is also lack of evidence concerning installations applicable to exemptions.

The regulations are recent and the Voivodeships Inspectorate of the Environmental Protection inspectors has only just received training on methods and measurement equipment. The difficulties occur with many small installations that currently operate without clear legal status, including some that operate illegally. The capacity for control and monitoring are so limited that the Voivodeships Inspector of Environmental Protection very rarely visits these installations.

6.5.3 Conclusions

Preparing a national plan is the most urgent task. Poland should also finally prepare the required information system, in particular providing periodical reports to the Commission with respect to progress in achieving compliance with regulations.

⁵ Effects of the implementing in Poland Directive 1999/13/EC. PHARE/POLOHAN Project. 21/2010264 (May 2001)

To ensure full compliance it is necessary to employ more inspectors, possibly at the powiat level of the local office of Voivodeships Inspector of Environmental Protection. It is also necessary to purchase suitable equipment for monitoring.

6.6 Conclusions

The solvent emissions Directive has been transposed in all countries except Estonia and, partially, Poland. Overall, Acceding Countries do not report significant problems with the implementation of the Directive. However, significant problems will occur with the large number of small installations affected, which are not regulated under IPPC. This will pose financial costs on small businesses and severe capacity problems for, usually, local administrations.

The Czech Republic will implement the emission limit values rather than a national plan. The overall cost estimate for the private sector are €129 million and the authorities do not suggest that implementation problems will occur. In Poland it is estimated that the Directive will affect 20,000 installations – 17,000 of which are small vehicle coating stations. This illustrates the potential impact on small business. It is suggested that the costs for such businesses will be difficult to meet and the capacity of regional authorities to issue permits and ensure compliance is very limited, indicating the likelihood of future compliance problems.

7 Directive 1999/31/EC on the Landfill of Waste

7.1 Introduction

The objective of the Directive is to provide for measures, procedures and guidance to prevent or reduce as far as possible negative effects on the environment, in particular the pollution of surface water, groundwater, soil and air, and on the global environment, as well as any resulting risk to human health, from landfilling of waste, during the whole life-cycle of the landfill. The main requirements of the Directive include requirements to have a national biodegradable waste strategy, to classify landfills according to waste type, to ensure landfills are operated in accordance with the specifications of the Directive, to ensure only specific wastes are accepted for landfill, to ensure all landfills are permitted, and to ensure financial and other security for operation and after-care.

7.2 Overview

The EU waste management *acquis* presents one of the greatest challenges to the Acceding Countries. Transposition of the Directive has largely been completed, although further transposition is required in Estonia and Malta and on financial security of landfills in the Czech Republic and Slovenia. A report published in September 2003⁶ examined waste management practices in the Acceding Countries. It made the following conclusions.

- Successful waste management in the Acceding Countries is little more than ‘small pockets of success’ – organised collection of municipal waste does not cover the whole country in any Acceding Country.

⁶ Cameron, E (2003) *Governance, Finance and Capacity: A Review of Waste Management Practices in the 12 EU Accession Candidates*. Cameron SDS, Brussels.

- Citizen awareness and participation is virtually non-existent.
- Economic systems in the Acceding Countries are plagued by high energy and material demands and over-dependence on virgin materials.
- Levels of waste recycling are significantly lower than in the EU.
- Municipalities suffer from an overwhelming shortage of experience and funds, so reducing capacity and transfer of new technologies. The costs of efficient waste management are too large for the municipalities to meet.
- Non-enforcement of environmental laws is serious due to inadequate institutional structures, threatening implementation of EU legislation.
- Failure to communicate is ‘the most striking problem’, within and between local authorities.
- Most existing landfills and incinerators do not meet EU standards, but significant expenditures will need to be made to meet EU requirements.
- Environmental issues have ‘taken a backseat’ to social and economic ones in the Acceding Countries – ‘this trend will continue unless action is taken now’.

This demonstrates that meeting the requirements of the landfill Directive is affected by two major challenges – poor waste management practices affecting what is sent to landfill and poor practices in the establishment and maintenance of landfill sites themselves.

A number of studies have been undertaken on the costs of implementing the Directive (Table 7), although some have focused on the waste sector as a whole. However, as indicated above, the implementation of the Directive cannot be readily separated from the overall management of waste within a country. The estimates do vary and while the costs are significant, they are lower than those needed to implement the UWWT Directive. The major specific costs concern the opening of new contained landfills (especially those concerned with hazardous waste) and significant recurring operating costs. It should be noted, however, that closing down landfills that are not in compliance is also expensive. Thus cost estimates for Lithuania indicate that landfill closure is likely to be more costly than opening new landfills. In this respect implementing the landfill Directive is different in character to Directives such as IPPC and UWWT, where it is costs for new infrastructure that predominate.

Table 7 Estimates of Costs for Implementing the Landfill Directive

Country	
Cyprus	(Investment costs of €100 million are estimated for the waste sector as a whole.)
Czech Republic	(World Bank 1999 estimates that compliance in the waste sector as a whole will require capital investment of €254-392 million and annual operating costs of €34-52 million.) Recent national estimates are for total costs to 2020 to be €1,570 million.
Estonia	Costs estimates by Estonia are €231.99 million for the waste framework and landfill Directives. Planned financing sources are: state budget (37%), local budgets (5.9%), foreign loans (48%) and foreign grants (8.9%).
Hungary	(World Bank 1999 estimates that compliance in the waste sector as a whole will require capital investment of €1,800-4,400 million and annual operating costs of €150-750 million.) TME study (2000) estimated the total cost of compliance with the landfill Directive to be €430 million.
Latvia	Costs for setting up 10-12 new landfills and waste collection systems for compliance with the landfill Directive are estimated at €357 million (including €75 million to close existing sites).
Lithuania	Costs for building 14 new landfills is estimated at €50 million and the cost of closing or upgrading existing landfills is estimated at 67.5 million.
Malta	It is estimated that €10 million (plus €10 million for composting facilities) will be needed to implement the landfill Directive.

Poland	TME (2000) estimated that the costs of compliance with the landfill Directive to be €86 million. Recent national estimates are €1,100-1,300 million.
Slovakia	TME (1999) estimated that the costs of compliance relating to recycling and landfills to be €870 million.
Slovenia	TME study (2000) estimated the total cost of compliance with the landfill Directive to be €798 million.

7.3 Administrative capacity

In most Acceding Countries most waste management is undertaken by public authorities at regional or local level, including waste collection and management of landfills for municipal waste. Other authorities can be responsible for facilities such as incinerators and hazardous waste landfills. This has resulted in repeated concerns over the capacity of authorities to meet the requirements of the Directive. This is illustrated in more detail in the Polish case study below.

7.4 Czech Republic

7.4.1 Transposition

It is reported that the Czech Republic does not have particular difficulties with the implementation of this Directive. It also does not have a transition period concerning this Directive. The Directive has been transposed by:

- Act 185/2001 S.B., on waste and on amendments of certain other acts, as amended by later legislation;
- Decree of the Ministry of Environment 381/2001 S.B., establishing the Catalogue of waste, the List of dangerous waste and lists of waste and countries for the purpose of export, import and transit of waste and the procedure of permitting export, import and transit of waste; and
- Decree of the MoE 383/2001 S.B., on details of waste management.

7.4.2 Implementation

A national waste management plan has been approved. The Czech Republic has also informed the Commission that it will use the opportunity to postpone the aims of the Directive concerning quantity of landfilled waste.

General requirements concerning landfills, including conditions of their location, technical operation, monitoring, closure and after-care are set up by binding technical norms; the norms were assessed and harmonised with the requirements of the Directive.

Charges for landfilling of waste are set up that will be gradually increased to stimulate reduction of waste going to landfills. The operator also shall establish a financial reserve aimed at decontamination and safety of the landfill after its closure,

The validity of existing permits for waste disposal is limited to December 2003. When issuing new permits the competent authorities have to comply with requirements of the Act and fines are imposed for violation of legal duties.

The key enforcement authority is the Czech Environmental Inspectorate (supervision, imposing fines). However, regional and municipal authorities have major roles in waste collection and sorting, etc.

The Czech Republic does not have any substantial problems with the implementation of the Directive. However, it is necessary to build sufficient capacities for the collection and treatment of the biologically degradable waste. The estimate (from 2001) of investment costs until 2020 is approximately 30 billion CZK (€ 970 million). Technical adjustments of landfills will cost approximately 2.7 billion CZK (€ 87 million). In 2003 it is almost certain that the costs will be lower because according to the national waste management plan less incinerators will be constructed. The policy is more oriented to waste composting which is cheaper. However, it will be possible to make a more precise estimate of investment costs when regional implementation programmes for biodegradable waste will be approved.

Problems did occur concerning the plan of adjustments of existing landfills. The Act laying down relevant rules (amending the Act on Waste) is pending in the Parliament. Its approval was postponed and it will be further discussed in 2004. It is a problem for existing landfill operators as their permit is valid only until the end of 2003. It was envisaged that the new Act would be in force from 1 January 2004. Due to the delay in the Parliament, the operation of such landfills will be illegal from January.

7.5 Poland

Poland obtained a transition period to 2012 for the adaptation of existing landfills to the requirements of the Directive. The detail midterm goals to be reached each year between accession and 2012 were set up. By 30 June every year, beginning from the year of accession, Poland has to deliver to the European Commission a report on the progress of the implementation of Directive.

7.5.1 Transposition

The Directive has been fully transposed into Polish law by following acts:

- Wastes Act of the 27 April 2001 with most of the laws, regulations and administrative provisions necessary to comply with the Directive;
- Decree of the Ministry of Environment of 9 December 2002 on the monitoring of landfill sites – in force on 3 January 2003 – transposition of Annex III of the Directive;
- Decree of the Ministry of Environment of 24 March 2003 on localisation, construction, operation and closure of landfill sites. Into force on 25 April 2003 - transposition of the Annex I of the Directive;
- Decree of the Ministry of Environment of 9 April 2003 on waste management plans. In force on 2 May 2003;
- Resolution of the Polish Council of Ministries of 29 October 2002 enforcing the National Waste Management Plan (NWMP). This plan includes a strategy for the reduction of biodegradable waste in accordance with the Directive targets.

7.5.2 *Implementation*

On the 29 October 2002, the Polish Parliament approved the NWMP. This stipulated that measures to reduce biodegradable waste should be made in plans for the lower level of public administration. The Ministry of Environment prepared guides for the preparation of such plans. All voivodeship (provincial) waste management plans are already prepared, and they have paid attention to the strategy of reduction of biodegradable waste. Some of the plans were late in meeting the deadline set by NWMP (which was 30 June 2003). There is, however, a gap between the NWMP and the provincial plans.

Powiat (county) Waste Management Plans are still in preparation or to be enacted. The deadline for them is 31 December 2003. There is evidence that many of powiat plans will be delayed. Gmina (urban and rural municipalities) plans are to be made by 30 June in 2004. They could be delayed due to late preparation of powiat plans.

The main concern is that it will be difficult to achieve the midterm goals of compliance storage. Even now it is not clear how many landfills follow the EU rules. There may also be a problem with construction of systems for the treatment of biodegradable waste on time (Monitoring Report 5 November 2003). To reach the targets, the number of plants for composting (and the treatment load), neutralising or recycling biodegradable waste should triple by 2006 and increase eightfold by 2010. This is the one of most costly Directives for Poland, estimated at about €1.1- 1.3 billion. Around a third of this can be obtained from foreign funds and a third from Polish environmental funds. There is no clear picture about the instruments, including financial ones, to promote recycling, composting and biogas production as well as recovery of energy and second hand resources from biodegradable waste.

The problem with the reduction of biodegradable waste may concern the segregation of municipal waste. In Poland segregation may be not sufficient to extract biodegradable waste. It is a challenge to create a system of segregation as there are currently only 52 installations for segregation. Only about 30 per cent of municipalities have a segregation system, but even they usually extract only paper, glass and aluminium, not biodegradable waste.

The NWMP foresees that there should be a reduction in the number of small landfill sites in Poland and new regional landfills are to be built. It seems that the exact requirements for this change are not known. The process will require the closure of a substantial number of existing landfills (many currently owned by municipalities) and it will give the opportunity to economise the process of waste management at the local level. Many municipalities and powiats state that the problem is that it is difficult to establish cooperation between municipalities on mutual landfill construction and operation. Some local leaders indicate that Polish law is lacking regulation on the issue of local council unions.

There is a probability that there will be no complete data about landfills of non-hazardous waste before March 2004, when Poland should report to the European Commission. The main Statistical Office in 2000 gave a number of 999 landfills in Poland. The NWMP states, based on Ministry of Environment data, that there are 1098 landfills. The State Inspectorate for Environment Protection during environmental surveys in 2002 checked 1,701 landfills of which 1,582 were for non-hazardous waste. Only 1,343 landfills had a waste list and permission for operation (79%).

The National Fund for Environmental Protection and Water Management (National Fund) as well as the Voivodeships (Provincial) Fund for Environmental Protection and Water Management (Voivodeships Funds) and EcoFund have programmes of financial support for building systems for selective waste collection and the construction of low waste installations as well as installations for waste recycling. In the National Fund in 2002 agreements for waste management projects reserved more money than in 2001. In the EcoFund in the first half of 2002 five new projects aimed at neutralisation and recycling of wastes were accepted. In the Cohesion Funds only eight projects for financing in 2004 were approved by Steering Committee from 28 submitted. Generally the number of projects is very low in comparison to demand. The number of proposals for projects is very limited and the quality of the proposals is weak. One of the barriers for local communities is the lack of credit ability (in Poland there is the limit for credits for local communities set at the 60 per cent of yearly budget). Another barrier is the high cost of project preparation.

One important element of implementation is related to the price for waste disposal. The price needs to include the cost of landfill construction, operation, liquidation, land reclamation as well as monitoring and supervising. This would mean a substantial increase in price. This is positive in that it encourages waste minimisation. However, it will also be difficult for many families to pay this price and illegal dumping might result. The system of enforcement and compliance is too weak to solve the problem and the communities are too poor to help some families to pay the bill.

Work on the after treatment of closed landfills needs attention. This problem was not stated in the NWMP. It is not clear who should manage closed landfills, what the cost of closing them is for the local administration and who will pay for land reclamation.

7.5.3 Conclusions

There is a need to finalise the work on powiats and gminas waste management plans. Probably financial as well as technical or personal support is needed to prepare waste management plans on time by municipalities. The Ministry of Environment and voivodeships environmental authorities need to exert more pressure to finish this work on time and, at the same time, be more helpful. The next critical step is to bring all these plans into a comprehensive system. Gmina plans need to be a part of powiat plan and powiat plans need to be the part of voivodeship plan, and the voivodeship plans need to be the part of national one. The environmental authorities on all the levels need to start this work immediately.

As there are concerns over meeting interim targets, it is necessary for more detailed monitoring of implementation. Poland needs to deliver an annual implementation progress report to the Commission. It is suggested that a half-yearly report is also delivered to the Minister of Environment.

There are the urgent needs for encouraging the gminas to develop waste management systems. The environmental authorities need to build the coalition between experts, NGOs, consultant companies, waste management chambers of commerce, financial institutions and self-government associations. Polish law should be more precise about establishing formal cooperation between gminas or powiats.

An in-depth practical study needs to be undertaken of the cost and price related to waste management. Two elements will be critical: willingness and ability to pay by society and the

cost of closing landfills. Many landfills were owned by gminas or gmina owned companies, which may generate additional costs for the local administration. Different models need to be developed related to local conditions (big city vs small city, rich community vs poor community). The programme of closing the landfills, therefore, needs to be added to waste management plans on all levels.

There is a need to start a campaign on the segregation of biodegradable waste. This needs to challenge local authorities as well as local NGOs. The National Fund and voivodeship funds need to develop special financing programmes to support the campaign.

7.6 Conclusions

The landfill Directive is a major challenge to Acceding Countries, not just for prescribing how landfills are to be constructed and operated, but also for its implications for waste management generally in order to meet biodegradable waste reduction targets, etc. These countries have poor levels of waste collection, low levels of recycling, low public awareness and inadequate disposal facilities. Costs for implementation are high, in this case not just for constructing new, compliant landfills, but also direct costs for closing older landfills. Given that much waste management is a local issue, there is serious concern over the capacity of such administrations to implement the Directive and, where costs are being passed on to households, concern over the potential for a rise in illegal dumping.

The Czech Republic has transposed the Directive and has no transition period. It has a national waste plan and it has already introducing landfill charging that will progressively increase. A problem has arisen, however, in that the Parliament has failed to pass a new Act, which would license landfills from 1 January 2004, after the current permits cease in 2003. Thus from 1 January 2004 these will be illegal and this needs to be addressed. Overall cost estimates are now thought to be lower than expected, due to a change in disposal plans, in that fewer incinerators are now expected to be built. Poland has problems in completing and integrating regional and local waste planning with the national plan. The transition period agreed has interim targets, but there is concern that these will not be met. The regional and local administrations are ill equipped to manage waste.

8 Directive 96/61/EC on Integrated Pollution Prevention and Control (IPPC)

8.1 Introduction

The objective of the Directive is to achieve integrated prevention and control of pollution arising from specified activities. The aim is to prevent or reduce emissions in the air, water and land, including measures concerning waste, in order to achieve a high level of protection of the environment taken as a whole. The Directive includes requirements to ensure all installations are issued with integrated permits that ensure they are operated according to BAT, to implement provisions for new, existing and closing installations, to ensure exchange of information on BAT and public participation, and to ensure full compliance with permit conditions, such as outlined in the Recommendation on minimum criteria for inspection.

8.2 Overview

The IPPC Directive represents a major challenge to the way that industrial environmental regulation is carried out across the EU. The Directive requires that all installations specified

in Annex I should only operate when issued with a permit and meet conditions of BAT. 'Existing' installations all require permits by October 2007, but new installations must already be issued with permits in order to operate.

The report of the Commission on progress in implementing the IPPC Directive (COM(2003)354, 19.6.2003) included some discussion on progress in the Acceding Countries. It highlights the following points.

- The development of realistic implementation programmes has been a crucial task, including important elements such as staff training programmes and raising awareness at affected installations.
- The permitting system has implied radical changes to previous systems, including integrated permitting, cross-media issues, negotiations during permitting and assessment of BAT.
- Twinning projects with Member State authorities have been beneficial.
- Transition periods have been agreed, but these do not cause any serious transboundary effects.
- Limited numbers of permits have been issued to date.
- The countries still need to strengthen their administration, especially at regional and local level and staff need training in the details of permitting (in some cases additional staff are required).
- There are indications that a large proportion of the operators concerned is relatively well informed of their future obligations.

The striking aspect of the Commission report is that these countries have viewed the Directive as necessitating a major change in the way that industry is regulated in each country. The concepts of integrated permitting, BAT, wider issues (energy, waste, etc) challenge institutional arrangements, industrial attitudes, etc. This contrasts with the attitude in many Member States, which can view IPPC as existing systems with some additions. There are still transposition questions over some Member States, but of the Acceding States, only Slovenia has yet to complete transposition of IPPC (Table 8). **From a legal viewpoint, therefore, compliance with the IPPC Directive is at least as advanced as in the Member States.**

Table 8 Status of Transposition of the IPPC Directive in the Ten Acceding States in Spring 2003

Country	Status of transposition
Cyprus	About half was achieved through air and water pollution control laws and full adoption in late 2002 via an IPPC law. Has opted for co-ordinated permits.
Czech Republic	IPPC Act of February 2002 (entered into force January 2003). Has opted for integrated permits.
Estonia	IPPC Act of 2001 and implementing regulations of June 2002. Has opted for integrated permits.
Hungary	IPPC Decree of 2001. Has opted for integrated permits, but with parallel permit for water discharges.
Latvia	Law on Pollution 2001 transposes IPPC, with ministerial regulations of July 2002. Has opted for integrated permits.
Lithuania	IPPC Act of February 2002 and additional 2002 implementing provisions. Has opted for integrated permits.
Malta	IPPC Regulation of June 2002. Has opted for co-ordinated permits.
Poland	Main provisions adopted in 2001 with remaining implementing provisions in late 2002. Has opted for integrated permits.

Slovakia	Transposed in an Act in 2003. Has opted for integrated permits.
Slovenia	Full adoption to be via a number of legislative and sub-legislative acts, yet to be completed. Has opted for integrated permits.

Practical implementation, however, poses many challenges. The first of these concerns the regulatory institutions themselves.

Transition periods have been agreed with Latvia, Poland, Slovakia and Slovenia (see Table 1). The transition periods relate to specific installation or activities at each installation. In most cases the number of installations affected is small, but, in the case of the Poland, the list is extensive, representing 20 per cent of all IPPC installations.

For all new installations (from 2000) and most existing installations, compliance will have to be met by October 2007. This presents a major challenge to the Acceding Countries, not least in terms of the investments required to meet the improved environmental performance. Cost estimates have been made. However, it is important to state that many uncertainties remain in determining costs to industry (and that cost estimates in many Member States also remain uncertain). Issues include:

- uncertainty as to what is absolutely required as BAT (both in terms of interpreting requirements from BREFs and what local environmental issues will drive BAT requirements);
- uncertainty over the extent of use of alternative, lower cost, means to deliver outcomes which have, as yet, to be examined;
- how far IPPC requirements other than emission limit values in permits, such as energy efficiency, will be imposed on operators; and
- how far technological restructuring in the countries will deliver improved environmental outcomes without additional expenditure being required.

Table 9 outlines the results of some studies that have been made into the costs of compliance with the IPPC Directive.

Table 9 Estimates of Costs for Implementing the IPPC Directive

Country	
Cyprus	According to a Metroeconomica study, the estimated total capital investment costs for the industry and risk management part of the acquis is €136-207 million.
Czech Republic	The CR Investment Strategy (2000-2005) estimated total investment costs for the industry and risk management part of the acquis is €639 million. TME (2000) study estimated the total cost of compliance with the IPPC Directive to be €3,725 million.
Estonia	TME (2000) study estimated the total cost of compliance with the IPPC Directive to be €489 million.
Hungary	TME (2000) study estimated the total cost of compliance with the IPPC Directive to be €1761 million.
Latvia	The Phare DISAE (1999) report (LAT-108) estimated that the costs of compliance would be €231 million. TME (2000) study estimated that the costs of compliance would be €90 million. Costs to the private sector for compliance with the Directive has been estimated at €350 million.
Lithuania	TME (2000) study estimated the total cost of compliance with the IPPC Directive to be €44 million.

Malta	Uncertain.
Poland	Costs of compliance are estimated at around €6,320 million for the period 2001 to 2010. TME (2000) study estimated the total cost of compliance with the IPPC Directive to be €6,927 million. A recent national estimate is for overall costs of €22,000-29,000 million.
Slovakia	Costs of compliance are estimated at around €3,000 million. TME (2000) study estimated the total cost of compliance with the IPPC Directive to be €1,596 million.
Slovenia	Costs of compliance are estimated at around €553 million. TME (2000) study estimated the total cost of compliance with the IPPC Directive to be €50 million.

8.3 *Administrative capacity*

IPPC requires regulators to come to judgements as to setting emission limit values so as to safeguard the local environment and how to deal with 'trade-offs' across environmental media, are changing traditional approaches. This is a major challenge to the Accessing Countries and requires considerable capacity building. Concern has been expressed by the Council, Parliament and Commission over the institutional capacity of accession countries to implement a number of items of EU environmental legislation, including the IPPC Directive. Studies have noted that while the Directive has resulted in significant legal reform in most accession countries, institutional enhancement has lagged behind, presenting problems for full, integrated assessments for permit determinations and adequate inspections.⁷ The problems of institutional capacity vary between countries. Some, for example, Estonia, report that capacity at the national level is probably sufficient to meet the requirements of the Directive. However, in other cases competence has been passed, at least for some installations, to regional or local administrations, which have insufficient capacity. **Thus, while much progress has been made in improving institutional capacity, in most cases further investment (staff numbers, training, etc) is still needed.**

EU legislation changes the requirements (and procedures) for processes already subject to permits under national legislation. Thus staff must understand the differences from current practice and how these new requirements are to be taken account of. IPPC, in particular, requires extensive new approaches to the procedures of assessing permit conditions. While national guidance will assist in this, only extensive training on technical and procedural issues will enable staff effectively to implement IPPC. Simply transposing IPPC and creating an 'integrated' permit does not overcome the skills gap that staff will face in meeting the practical requirements for implementation on an installation by installation basis. To varying degrees all candidate countries express a need for this procedural capacity to be increased. However, in some cases the capacity problems are more acute than others are. In particular the capacity of staff in the Voivodships in Poland to take account of the complexities of IPPC is seriously open to question and urgent action is required to advise and train those assessing permits.

Most countries report the need for additional staff. In some cases some detailed analysis has been undertaken of staff numbers in relation to IPPC. Estimates of capacity needs vary considerably and it is not clear what the bases of such assessments are. This issue is clearly

⁷ Ecotec (2002) *Administrative Capacity for Implementation and Enforcement of EU Environmental Policy in the 13 Candidate Countries*. Available at: http://europa.eu.int/comm/environment/enlarg/administrativecapacity_en.htm

linked to those of institutional efficiency (eg whether staff are full deployed on permitting activities) so that numbers may be comparable. Severe budget constraints usually apply and it is important that Finance Ministries are made aware of the high priority of the increased capacity needs of these institutions.

The degree to which the inspection systems meet the EU minimum criteria vary. In some cases, eg Estonia or the national inspectorate in Poland, most of the criteria are met. However, it is important to distinguish best practice from general practice. Thus in Poland, sub-national institutions have some improvements to make before the minimum criteria can be met. The main common problems that Acceding Countries face in meeting these criteria are:

- poor co-ordination, eg the lack of an integrated approach to inspections covering the entire installation;
- the frequency of inspection systems;
- feedback to permitting; and
- the level of non-compliance response, including the degree to which fines act as a deterrence.

Most countries impose fines for non-compliance, or enforcement notices where non-compliance can be rectified. However, there is concern over the efficacy of these fines. Significant penalties can be imposed (eg Latvia). However, many fines are often absorbed as running costs by facilities. This system cannot be reformed simply by raising penalties or by imposing them more widely. As EU limits become further incorporated into national legislation such conditions become increasingly absolute and it is important that old 'habits' relating to fines and pollution taxes are reformed. Ideally this should be done prior to inclusion of EU requirements.

8.4 Czech Republic

8.4.1 Transposition

The Directive has been transposed by:

- Act 76/2002 S.B. (in effect from 1 January 2003);
- Regulation 63/2003 S.B., on the how, and the extent to which, the system of exchange of information about BAT is to be ensured (in effect from 14 August 2002);
- Regulation 368/2003 S.B., on the integrated pollution register (will enter into effect by 1 January 2004);
- Decree of the MoE 554/2002 S.B., defining a sample application for an integrated permit, extent and fashion of filling in the application (in effect from 1 January 2003); and
- a decree of the MoE specifying details on evidence of registered substances is being prepared.

8.4.2 Implementation

The implementation of the IPPC Directive cannot be regarded as very successful one. The Act introduced a complicated system, which does not enable authorities to issue a properly integrated permit. The secondary legislation is very complex and includes requirements that

are not always necessary. The implementation of the Act is also demanding from the administrative point of view. Apart from the administrative bodies two expert bodies were set up by the Act - an Agency and a qualified expert person. Although their function is to support the permit procedure, the provisions can be regarded as an underestimation of the professional capacity of the administrative bodies (as defined above). Because of the difficulties connected with the application the Act will have to be amended as soon as possible.

The Ministry of Environment carries out the supreme state control for IPPC. It reviews and grants integrated permits in cases where an installation is likely to have a significant negative effect on the environment of another State. The MoE is the appeal authority in cases when either a regional authority or the Environmental Inspectorate makes a decision. Within its scope of competence, the MoE ensures assessment of how BAT is applied and sends the results of the assessment to the competent EC bodies, as well as other reporting obligations.

The Ministry of Industry and Trade ensures monitoring of BAT in relevant EU documents as regards installations specified in the Act 76/2002. It gives opinions within its field of competence in cases of an appeal against a decision on integrated permit application. The Ministry also ensures, within its competence, the assessment of how the BAT is applied and the system of exchange of information on BAT. Similar tasks have been conferred to the Ministry of Agriculture. The Ministry of Health gives opinions within its field of competence in cases of appeal against a decision on an integrated permit application.

Regions grant integrated permits with the exception of an installation the operation of which is likely to have significant negative effects on the environment, and regularly reviews the permits it issues. The regions impose sanctions and remedial measures.

The Czech Environmental Inspectorate primarily controls compliance with the requirements and imposes sanctions and remedial measures. The Inspectorate forwards to the regions results of the inspections in cases where a region is the competent body to impose sanctions and assesses the application of BAT.

The Regional Sanitary Authority defines binding conditions for a source of noise or vibration where it is not possible to meet the hygienic limits. This authority is also empowered to carry out inspection and impose relevant sanctions and remedial measures as far as human health is concerned.

According to the Czech Environmental Institute (an institute subordinated to the Czech Ministry of Environment) the necessary investments of the private sector are currently difficult to specify. As regards the state budget, the investments in the year 2001 amounted to 30 million CZK (€ 952,381), in 2002 to 156 million CZK (€ 4,952,381) and in 2003 to 123 million CZK (€ 3,904,761). These figures include costs related to salaries, equipment, premises, costs of operation of the special Agency and other costs⁸.

⁸ Analysis of the economic impacts of the draft of the Act 76/2002 S.B.

8.5 Poland

8.5.1 Introduction

Poland has been granted a transition period to 2010 for some installations (local heat and power plants, local waste disposal sites as well as a specified number of larger installations); these installations will be allowed to apply for a 'transition programme'; they will have to propose a transition plan which specifies the technical measures to be taken, as well as financial plans; in that case BAT requirements will have to be met by December 31 2010. This applies to more than 200 installations and in each case the transition plan will be negotiated individually. The integrated permits will be granted before 30 October 2007.

8.5.2 Transposition

The Directive is transposed into Polish Law by Environmental Protection Act (27 April 2001) and two Decrees of the Minister of Environment, concerning later deadlines for granting integrated permits (September 2003) and installations that can appeal for the 'transition programme' (April 2003). Guidelines and procedures have also been developed. In Polish law, an 'existing installation' is one that obtained permission for construction before October 1 2001 and started operating no later than 30 June 2003.

Poland adopted a phase-in plan for permitting with deadlines specified for different sectors. For older installations in most cases the deadline is 2006 or 2007 and for new installations the deadline 30 April 2004. The Starosta⁹ or Voivode¹⁰ are obliged to issue the integrated permits on receipt of the opinion of the Voivodeship Inspectorate of Environmental Protection.

8.5.3 Implementation

There are over 2,000 IPPC installations in Poland, which require an integrated permit (some sources mention 2,300-2,400). Only one (new) installation has received an integrated permit so far (ELCHO, power plant, April 2003). The description of BAT is not precise and creates much misinterpretation. Each environmental authority responsible for permitting can issue its own policy, which can result in different rules for companies operating in more than one voivodeship.

Companies in a difficult financial situation, or small ones without support from the Structural Funds, will not be able to implement the Directive. The 'transition programme' will help, but companies must still follow it. Industry representatives fear that the application of BAT may cost too much and weaken Polish industry; according to surveys, 40 per cent installations already fulfil BAT requirements, 20 per cent need technological improvement and too little is known to characterise the remaining 40 per cent. Overall estimated costs of implementing BAT in Polish industry are €22 - 29 billion.

The National Centre for Best Available Techniques was established within the Ministry of Environment in June 2002; its tasks include collecting and updating information on BAT, registration applications and permits, collecting and utilising application fees, verifying applications and permits, training administration staff, industry representatives and experts. Little is known about the progress of this work. There are opinions that BREFs prepared by

⁹ Governor of county (powiat).

¹⁰ Governor of province (voivodeship).

EIPPCB are unfair and benefit competition from the EU and other Accession Countries, which have more influence on establishing BREFs than Polish industry (which has very few representatives on the Technical Working Groups).

In 1999 the Ministry of Environment, in cooperation with Danish Environmental Protection Agency, launched a Pilot Programme, which included helping 15 installations apply for an integrated permit. This helped to gain experience, but it did not result in the issuing of any permits (as was intended), because a few executive decrees of the Minister of Environment necessary for the procedure were still missing.

Operators are likely to find it difficult to prepare applications on time; the process has not even started in most installations and industry representatives hope they will not be made responsible immediately after the deadline.

The formal process of application might take a long time. There is concern over the lack of institutional capacity to process applications and issue permits before the deadlines; integrated permits are to be issued by voivodeship authorities (installations with harmful environmental impact – probably about 600 installations) and powiat authorities (other installations – about 1,800). The powiat administration seems to be particularly understaffed and unready to process IPPC applications. This is part of a more general problem in Poland, where powiats have many tasks but not enough staff, experience and funding. This is a consequence of the 1999 territorial reform of administration in Poland, which brought decentralisation for many environmental responsibilities. There are also fears that authorities will not be capable of applying a truly integrated approach to pollution but rather will rely on emission limits.

Finally, there seems to be little awareness of the importance of public participation in the process of granting permits.

8.5.4 Conclusions

The IPPC Directive is the most difficult to implement and the most costly Directive for Poland. The numbers of installations, requirements for integrated permits and capacity requirements for environmental authorities are so problematic that a special programme for implementation is needed. This should cover the following.

- An information campaign for all potential installations including the guidelines (some already developed by Ministry), special consultation desks at national and provincial level (with involvement of regional universities or different scientific institutions or specialised NGOs or consultant companies), a training programme with interactive methods. The campaign needs to involve the sectoral and regional chambers of commerce.
- Building capacity for environmental authorities on voivodeship and powiat levels including: information guides, training, increasing staff, exchange of experience between different voivodeships and powiats and between environmental authorities from Acceding Countries.
- Public participation needs improving. Local and regional NGOs need to be trained and information materials (in non-technical language) need to be distributed.

- Some experts suggest changing the rules for issuing permits for less harmful installations. Also others suggest that because of the poor capacity of powiats authorities, all permits should be issued by voivodeship authorities.

8.6 Conclusions

IPPC has presented a major challenge to Acceding Countries and most have responded by radically changing their industrial regulation processes. Transposition is complete in all except Slovenia. In both regards this places them ahead of many Member States. There are many uncertainties with regard to implementation, not least the detailed interpretation of BAT and how far lower cost options will be found to meet operating requirements. There are significant administrative capacity concerns for most countries, due to problems with staff numbers, poor co-ordination, etc.

Implementation in the Czech Republic has produced a complex system involving a range of authorities leading to confusion and capacity problems. Currently it is argued that cost estimates for operators are not possible to determine. In Poland permitting and inspection responsibilities have largely been devolved to regional and local administrations, which have major capacity problems. It is the most costly Directive for Poland and there are fears that inadequate supervision will lead to significant compliance problems.

AF/EK/EA/AK
15 December 2003