European Commission - DG Environment

Conference organised by

with support from

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

Umwelt Bundes Amt – Für Mensch und Umwelt

Das Lebensministerium

Free State of Saxony

Ministry of Environment and Water

Hungary

On the Road to Sustainable Production in the Enlarged EU
Integrated Pollution Prevention and Control (IPPC)

Conference Proceedings

20 – 22 September 2005,
Dresden (Germany)

Impressum

Editor:

European Commission
DG Environment, C.4 (Industrial Emissions)

Federal Ministry for the Environment, Nature Conservation and
Nuclear Safety (Germany)

Compilation, copy-editing, formatting:

Ecologic
Institute for International and European Environmental Policy
Pfalzburger Strasse 43/44
10717 Berlin
Germany

www.ecologic.de

info@ecologic.de

Foreword

About 400 international experts involved in the implementation of the IPPC Directive discussed the continuous improvement of environmental performance of industrial installations at the Conference “On the Road to Sustainable Production in the Enlarged EU – Integrated Pollution Prevention and Control (IPPC)” in Dresden (Germany) on 20 – 22 September 2005.

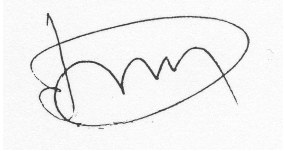
The objective of the IPPC Directive is to foster a high level of protection of the environment as a whole throughout Europe so as to protect both the population and the natural environment from any detrimental impacts of industrial production. Nine years after adoption of the IPPC Directive, the conference aimed to take stock of its implementation and explored the possibilities for its further development.

In lively discussions in four working groups on 20 September, and in the plenary conference during the following days, all aspects of the implementation and further development of the IPPC Directive were addressed. The discussions were mainly focused on the progress needed to ensure the full and timely implementation of the IPPC Directive by October 2007, the use of BAT Reference documents in the permitting process, and the interfaces of the Directive with other legislation. The process to review the IPPC Directive was also launched publicly by the Commission and discussed at this conference.

The Commission considers the outcome of the conference as a success. The exchange of information and views between authorities and industry representatives from the EU 25 and even beyond was very open and fruitful. The conference has contributed greatly to face the challenges and opportunities of the implementation of this key piece of legislation.

The Commission would like to thank especially the German Ministry for Environment, Nature Protection and Nuclear Safety, the Land Saxony, the German Federal Environment Agency, the Hungarian Ministry of Environment and Water and the consultant Ecologic for supporting and contributing to the success of this conference.

Brussels, November 2005



Jos Delbeke

Director

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Programme

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9:00	Opening by R. A. Kraemer, Director Ecologic Institute
9:10	Welcome speech by Margareta Wolf; Member of Parliament, Parliamentary State Secretary, German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
9:20	Welcome speech by Stanislaw Tillich, Minister for the Environment and Agriculture, Free State of Saxony
9:30	Welcome speech by Prof. Dr. Andreas Troge, President of the German Federal Environmental Agency
9:40	Welcome speech and introduction by Jos Delbeke, Director Air and Chemicals, European Commission – DG Environment
10:00	Coffee & Tea

Morning Session:	**Implementation of the IPPC Directive**	**Speaker**
Chair:	Peter Vercaemst, VITO, Belgium	
10:30	Presentation by an old Member State: Benefits, efficiency and gaps – An assessment of the IPPC Directive	Erik Nyström, Environmental Protection Agency, Sweden
10:50	Presentation by the EIPPCB: The Sevilla Process – Opportunities, Challenges and Perspectives	Don Litten, Institute for Prospective Technological Studies
11:10	Report from Working Group 1: The practical application of the BREFs: From BAT to Emission Limit Values	Juri Truusa, Ministry of Environment, Estonia
11:20	Statement: An assessment of the IPPC Directive from the perspective of an industry	Jean-Marie Demoulin, CEFIC - European Chemical Industry Council
11:30	Statement: An assessment of the IPPC Directive and the Sevilla Process from the perspective of an NGO	Stefan Scheuer, European Environmental Bureau
11:40	Questions & Discussion	
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Chair:	Peter Vercaemst, VITO, Belgium	
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Chair:	Peter Vercaemst , VITO, Belgium	
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Morning Session:	**The future development of the IPPC Directive – Where do we want to stand in ten years?**	**Speaker**
Chair:	Katerina Iakovidou-Anastasiadou, Hellenic Ministry for the Environment, Physical Plannig and Public Works	
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9:20	Report from Working Group 4: How to further promote good application of the IPPC Directive?	Philippe Lucas, Agence de l'Eau Seine-Normandie, France
9:30	Statement by a new Member State: A perspective on the future development of the IPPC Directive	Malgorzata Typko, Ministry of Environment, Poland
9:40	Statement by a scientific or international Organisation: The future development of the IPPC Directive – Expectations and Prerequisites	Dr. Andrew Farmer, Institute for European Environmental Policy
9:50	Questions & Discussion	
10:30	Coffee & Tea	

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Moderation	R. Andreas Kraemer, Ecologic Institute
11:00	Alexandre Paquot, European Commission – DG Environment
	Dr. Norbert Salomon, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Germany
	Balazs Horvath, Ministry of Environment and Water, Hungary
	Dr. Alfredo Pini, National Agency for the Protection of the Environment, Italy
	Richard Vincent, Department for Environment, Food and Rural Affairs, United Kingdom
	Mechthild Naschke, European Environmental Bureau
	Michel Bruder, UNICE - Union des Industries de la Communauté Européenne
13:00	Lunch & End of the Event

Participants

Participants

Country	Institution	Name
1.	CEEP - European Centre of Enterprises with Public Participation and of Enterprises of General Economic Interest	Rudolf Stachel
2.	CEFIC - European Chemical Industry Council	Jean-Marie Demoulin
3.	CEPI - Confederation of European Paper Industries	David Croon
4.	CEPI - Confederation of European Paper Industries	Alina Ruonala-Lindgren
5.	CETS - European Committee for Surface Treatment / ZVO	Berthold Sessler
6.	CIAA - Confederation of the Food and Drink Industries of the EU	Elisabeth Comere
7.	Committee of Associations of European Foundries	Kay-Uwe Präfke
8.	CONCAWE - The Oil Companies' European Association for Environment, Health and Safety in Refining and Distribution	Alain Heilbrunn
9.	CONCAWE - The Oil Companies' European Association for Environment, Health and Safety in Refining and Distribution	Dr. Lourens Post
10.	CPIV - Standing Committes of the European Glass Industries	Frédéric van Houte
11.	EEB - European Environmental Bureau	Mechthild Naschke
12.	EuLA - European Lime Associaton	Dr. Marie A. Kennedy
13.	EuLA - European Lime Associaton	Dr. Thomas Schlegel
14.	EURELECTRIC - Union of the Electricity Industry	Manfred Hildebrand
15.	EURITS - European Union for Responsible Incineration and Treatment of Special Waste	Mike Hale
16.	Eurofer - European Confederation of Iron and Steel Industries	Jean-Pierre Debruxelles
17.	Eurometaux	Lynette Chung

18.		Eurometaux	Dr. Mark Mistry
19.		Europacable	Helmut Myland
20.		European Bank for Reconstruction and Development	Robert Adamczyk
21.		European Commission - DG Enterprise	Caroline Hager
22.		European Commission - DG Environment	Dr. Jos Delbeke
23.		European Commission - DG Environment	Neil Emmott
24.		European Commission - DG Environment	Gabriella Gerzsenyi
25.		European Commission - DG Environment	Laurence Graff
26.		European Commission - DG Environment	Christian Hudson
27.		European Commission - DG Environment	Bernd Mehlhorn
28.		European Commission - DG Environment	Alexandre Paquot
29.		European Commission - DG Environment	Claudia Roehrich
30.		European Environment Agency	Eva Goossens
31.		European Fertilizers Manufacturers' Association	Soili Ylisuutari
32.		European Industrial Minerals Association	Christophe Sykes
33.	Austria	Amt der Steiermärkischen Landesregierung	Alfred Hammler
34.	Austria	Austrian Economic Chamber	Guenther Grassl
35.	Austria	Federal Environment Agency	Dr. Siegmund Böhmer
36.	Austria	Federal Environment Agency	Dr. Ilse Schindler
37.	Austria	Federal Environment Agency	Ilona Szednyj
38.	Austria	Federal Environment Agency	Herbert Wiesenberger
39.	Austria	Federal Ministry for Economic Affairs and Labour	Helmut Bayer
40.	Austria	Federal Ministry for Economic Affairs and Labour	Rudolf Göller
41.	Belgium	Alural Group	Bart Gysels

42.	Belgium	Belgian Flemish Government	Laureen Dellellio
43.	Belgium	Belgian Flemish Government	Robrecht Vermoortel
44.	Belgium	CEMBUREAU - European Cement Association	Claude Loréa
45.	Belgium	Innovene	Anne Dufermont
46.	Belgium	Intergraf - International Confederation for Printing and allied Industries	Anne-Marie de Noose
47.	Belgium	Ministry of Flemish Community	Paul Bernaert
48.	Belgium	Ministry of the Walloon Region	Olivier Kassi
49.	Belgium	Ministry of the Walloon Region	Marianne Petitjean
50.	Belgium	Nickel Institute (ENIA)	France Capon
51.	Belgium	PlasticsEurope	Dr. Neil Mayne
52.	Belgium	Procter & Gamble	Eddy Linclau
53.	Belgium	Solar Turbines Europe S.A.	Timothy Clayton
54.	Belgium	VITO - Flemish Institute for Technological Research	Peter Vercaemst
55.	Belgium	VITO - Flemish Institute for Technological Research	Dr. Karl Vrancken
56.	Bulgaria	Ministry of Environment and Water of Bulgaria	Maria Boyadjiiska
57.	Bulgaria	Ministry of Environment and Water of Bulgaria	Boyko Malinov
58.	Czech Republic	Association of Chemical Industries	Dr. Ladislav Spacek
59.	Czech Republic	Czech Environmental Information Agency	Jiri Valta
60.	Czech Republic	DHV CR Ltd. - Czech Consulting and Engineering Company	Jana Kaskova
61.	Czech Republic	Enviros Consulting	Monika Pribylova
62.	Czech Republic	Food Research Institute Prague (VUPP Praha)	Dr. Karel Svoboda
63.	Czech Republic	Ministry of Agriculture	Dr. Milena Vicenova

64.	Czech Republic	Ministry of Agriculture	Petr Zajicek
65.	Czech Republic	Ministry of Environment	Jan Marsak
66.	Czech Republic	Ministry of Environment	Zdenka Volna
67.	Czech Republic	Ministry of Industry and Trade	Bohumila Andelova
68.	Czech Republic	Ministry of Industry and Trade	Ladislav Kodr
69.	Denmark	Agricultural Advisory Service	Arne Hansen
70.	Denmark	Agricultural Advisory Service	Bjarne Langdahl Riis
71.	Denmark	Carl Bro	Morten Guld
72.	Denmark	Confederation of Danish Industries	Jens Ulrik Jensen
73.	Denmark	COWI A/S	Klaus Pedersen
74.	Denmark	Danish Environmental Protection Agency	Susanne Andersen
75.	Denmark	Danish Environmental Protection Agency	Ulla Ringbaek
76.	Denmark	Danish Environmental Protection Agency	Erik Thomsen
77.	Denmark	Danish Ministry of Environment	Hans Kjaer
78.	Denmark	Danish Ministry of Environment	Sophie Winther
79.	Denmark	Leca International	Soren Tousgaard
80.	Denmark	Rockwool International A/S	Annette Hastrup
81.	Estonia	Eesti Energia AS	Tonis Meriste
82.	Estonia	Emi-Eco - The Centre for Development Programs	Dr. Anne Randmer
83.	Estonia	Laane-Viruma County Environmental Department	Taimar Ala
84.	Estonia	Ministry of Environment	Ingrid Tamm
85.	Estonia	Ministry of Environment	Juri Truusa
86.	Finland	Finnish Energy Industries	Pia Oesch
87.	Finland	Finnish Environment Institute	Mikko Attila

88.	Finland	Finnish Environment Institute	Hille Hyytiä
89.	Finland	SW Finland Regional Environmental Centre	Jaakko Kuisma
90.	France	Agence de l'Eau Seine-Normandie	Dr. Philippe Lucas
91.	France	DRIRE - Haute Normandie	Christian Legrand
92.	France	Gaz de France	Philippe Stierlin
93.	France	INERIS	Dr. Simone Schucht
94.	France	Merck Sharp & Dohme	Pascal Michoux
95.	France	Ministry for Ecology and Sustainable Developement	Delphine Petit
96.	France	OECD	Eugene Mazur
97.	France	Saint Gobain	Guy Tackels
98.	France	Suez Environnement	Marco Fontana Giusti
99.	France	Unice - Mouvement des Entreprises de France/Union des Industries de la Communauté européenne	Michel Bruder
100.	Germany		Markus Will
101.	Germany	ABOTT	Christoph Pescheck
102.	Germany	Association of German Organic Chemical Industry	Dr. Angelika Hanschmidt
103.	Germany	BASF AG	Dr. Monika Bär
104.	Germany	BASF AG	Dr. Gert Ertl
105.	Germany	BASF AG	Dr. Gerhard Zimmer
106.	Germany	Bavarian State Office for Water Economy	Dieter Rörig
107.	Germany	Bayer Industry Services GmbH	Dr. Peter Breidenbach
108.	Germany	BiPro	Sonja Bauer
109.	Germany	Degussa AG	Stefan Dommes
110.	Germany	Degussa AG	Prof. Dr. Wolfgang Hasenpusch
111.	Germany	Degussa AG	Dr. Hartwig Soicke
112.	Germany	District Government Münster	Richard Bolwerk
113.	Germany	EWPA - European Waterless Printing Association e.V.	Manfred Hamann

114.	Germany	Federal Environmental Agency	Dr. Michael Angrick
115.	Germany	Federal Environmental Agency	Rolf Beckers
116.	Germany	Federal Environmental Agency	Dr. Dieter Cohors-Fresenborg
117.	Germany	Federal Environmental Agency	Susanne Dressler
118.	Germany	Federal Environmental Agency	Maria Elander
119.	Germany	Federal Environmental Agency	Dr. Evelyn Hagenah
120.	Germany	Federal Environmental Agency	Dr. Joachim Hein
121.	Germany	Federal Environmental Agency	Judith Kaliske
122.	Germany	Federal Environmental Agency	Siegfried Kalmbach
123.	Germany	Federal Environmental Agency	Dr. Karsten Karschunke
124.	Germany	Federal Environmental Agency	Dr. Dietmar Koch
125.	Germany	Federal Environmental Agency	Katja Kraus
126.	Germany	Federal Environmental Agency	Bernd Krause
127.	Germany	Federal Environmental Agency	Sandra Leuthold
128.	Germany	Federal Environmental Agency	Anika Malitz
129.	Germany	Federal Environmental Agency	Dr. Georg Maue
130.	Germany	Federal Environmental Agency	Jutta Penning
131.	Germany	Federal Environmental Agency	Sebastian Plickert
132.	Germany	Federal Environmental Agency	Almut Reichart
133.	Germany	Federal Environmental Agency	Marcel Richter
134.	Germany	Federal Environmental Agency	Michael Suhr
135.	Germany	Federal Environmental Agency	Bettina C. Uhlmann
136.	Germany	Federal Environmental Agency	Volker Weiss
137.	Germany	Federal Environmental Agency	Dr. Joachim Wieting
138.	Germany	Federal Environmental Agency	Brigitte Zietlow
139.	Germany	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	Ursula Kramer
140.	Germany	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	Jürgen Kühn

141.	Germany	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	Dr. Norbert Salomon
142.	Germany	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	Dr. Dieter Veltwisch
143.	Germany	Federation of German Industries	Annette Giersch
144.	Germany	Federation of the German Fine Ceramic Industry	Franz X. Vogl
145.	Germany	Fels-Werke GmbH	Hans-Peter Thomas
146.	Germany	German Abrasives Association	Dr. Gunnar Grecksch
147.	Germany	German Cement Works Association	Dr. Martin Oerter
148.	Germany	German Lime Association	Dr. Bernhard Oppermann
149.	Germany	German Mining Association	Julia Marder
150.	Germany	H.C. Starck GmbH	Dr. Astrid Goerge
151.	Germany	K+S Entsorgung GmbH	Jörg Glienke
152.	Germany	Korea Institute of Science and Technology, Europe	Sanghun Kim
153.	Germany	Landesamt für Umwelt Rheinland-Pfalz	Dr. Hans-Joachim Koenemann
154.	Germany	Landesumweltamt Nordrhein-Westfalen	Dr. Heino Falcke
155.	Germany	Landesverwaltungsamt Sachsen-Anhalt	Dr. Angela Kordts
156.	Germany	lexxion	Claudia Topp
157.	Germany	Martin GmbH	Edmund Fleck
158.	Germany	Ministry for the Environment and Agriculture, Free State of Saxony	Dr. Mathias Böttger
159.	Germany	Ministry for the Environment and Agriculture, Free State of Saxony	Peter Gamer
160.	Germany	Ministry for the Environment and Agriculture, Free State of Saxony	Dr. Udo Mücke
161.	Germany	Ministry for the Environment and Agriculture, Free State of Saxony	Matthias Robel
162.	Germany	Ministry for the Environment and Agriculture, Free State of Saxony	Dr. Norbert Schiess
163.	Germany	Ministry for the Environment and Agriculture, Free State of Saxony	Stanislaw Tillich

164.	Germany	Ministry for the Environment Baden-Württemberg	Ute Maier
165.	Germany	Ministry for the Environment Baden-Württemberg	Dr. Ulrich Maurer
166.	Germany	Ministry for the Environment Hessen	Dr. Ellen Rössner
167.	Germany	Ministry for the Environment North-Rhine Westphalia	Dr. Christel Wies
168.	Germany	Ministry for the Environment Rhineland-Palatinate	Dr. Michael Hofmann
169.	Germany	Nalco	Dr. Anton Olkis
170.	Germany	Öko-Institute	Andreas Hermann
171.	Germany	Ökopol GmbH	Christian Tebert
172.	Germany	Regional Authority Freiburg	Dr. Dieter Kaltenmeier
173.	Germany	Regional Authority Freiburg	Dr. Harald Schönberger
174.	Germany	Regional Authority Karlsruhe	Gottfried Schoebel
175.	Germany	Regional Authority Stuttgart	Dr. Brigitte Streicher
176.	Germany	Regional Authority Tübingen	Dr. Thomas Weimer
177.	Germany	Remondis International	Dr. Eva-Maria Krüger
178.	Germany	Sächsisches Landesamt für Umwelt und Geologie	Torsten Moczigemba
179.	Germany	Siemens	Dr. Heimo Friede
180.	Germany	Solvay	Dr. Karl H. Kampmann
181.	Germany	SRU - German Advisory Council on the Environment	Almut Reichel
182.	Germany	Struktur- und Genehmigungsdirektion Süd (Rheinland-Pfalz)	Dr. Arnold Müller
183.	Germany	University of Karlsruhe	Dr. Bernd Calaminus
184.	Germany	University of Karlsruhe	Magnus Fröhling
185.	Germany	VDMA - German Engineering Federation	Winfried Resch
186.	Germany	Verein der Zuckerindustrie	Stefan Rössing
187.	Germany	VGB PowerTech	Volker Hamacher
188.	Germany	Volkswagen AG	Dr. Michael Mrowietz
189.	Greece	Confederation of Greek Industries	Dr. Konstantinos Symeonides

190.	Greece	Enveco	Ioanna Kourti
191.	Greece	EPEM S.A. - Environmental Planning, Engineering & Management	Nikolaos Gargoulas
192.	Greece	Hellenic Ministry for the Environment, Physical Plannig and Public Works	Katerina Iakovidou-Anastasiadou
193.	Greece	LDKECO - Environmental Consultants	Nikolaos Sellas
194.	Greece	Public Power Corporation of Greece	Vassiliki Tsadari
195.	Hungary	Association of Hungarian Foundries	Dr. Pal Hatala
196.	Hungary	Chinoin Rt.	Erzsebet Regenyine Odor
197.	Hungary	Ministry of Environment and Water	Balazs Horvath
198.	Hungary	National Directorate for Environment, Nature and Water	Ildiko Babcsány
199.	Hungary	National Directorate for Environment, Nature and Water	Edina Gampel
200.	Hungary	National Directorate for Environment, Nature and Water	Jozsef Kutas
201.	Hungary	National Directorate for Environment, Nature and Water	Eszter Nyari
202.	Hungary	National Society of Conservation	Zoltan Mayer
203.	Ireland	Irish Environmental Protection Agency	Patrick J. Nolan
204.	Ireland	Irish Environmental Protection Agency	Marie O'Connor
205.	Israel	Nesher Israel Cement Ent. Ltd	Dr. Azriel Pillersdorf
206.	Italy	CRPA - Research Centre on Animal Production	Dr. Giuseppe Bonazzi
207.	Italy	Edison	Dr. Salvatore Ignaccolo
208.	Italy	ENEA - Italian Agency for new Technologies and Environment	Franco Tinti
209.	Italy	Federchimica	Giuseppe Astarita
210.	Italy	Ministry for the Environment	Roberta Spinetti
211.	Italy	Ministry of Agriculture and Forestry Policies	Dr. Francesca Riguzzi
212.	Italy	National Agency for the Protection of the Environment	Dr. Alfredo Pini
213.	Latvia	Environmental State Bureau	Dr. Janis Avotins
214.	Latvia	Environmental State Bureau	Dr. Indra Kramzaka

215.	Latvia	Environmental State Bureau	Arnolds Luksevics
216.	Lithuania	Lithuanian Environmental Protection Agency	Andrius Kairys
217.	Lithuania	Lithuanian Environmental Protection Agency	Daiva Mazunaitiene
218.	Lithuania	Pigmeat Producers' Association	Jolanta Bastiene
219.	Luxemburg	Administration de l'Environnement	Claude Geimer
220.	Norway	Norwegian Pollution Control Authority	Inger Karin Hansen
221.	Norway	Norwegian Pollution Control Authority	Gunn Soermo
222.	Norway	Norwegian Pollution Control Authority	Glenn Storbraten
223.	Poland	Chief Inspectorate for Environmental Protection	Hanna Jastrzebska
224.	Poland	KGHM Polska Miedz S.A.	Helena Byrdziak
225.	Poland	Ministry of the Environment	Monika Stokowska
226.	Poland	Ministry of the Environment	Malgorzata Typko
227.	Poland	Prochem SA	Anna Zielinska
228.	Poland	WS Atkins Polska	Andrzej Krzyszczak
229.	Poland	WS Atkins Polska	Jadwiga Ronikier
230.	Portugal	Instituto do Ambiente	Paula Gama
231.	Portugal	Instituto do Ambiente	Paula Meireles
232.	Portugal	Instituto do Ambiente	Paula Simao
233.	Portugal	Ministry of Economy	Antonio Victor Carreira de Oliveira
234.	Romania	APM Constanta	Catiusa Tompos
235.	Romania	Environmental Regional Agency	Daniel Ciobanu
236.	Romania	Environmental Regional Agency	Roxana Costache
237.	Romania	Environmental Regional Agency	Carmen-Ileana Fesnic
238.	Romania	Environmental Regional Agency	Elena Mehedintu
239.	Romania	Environmental Regional Agency	Mihaela-Alexandrina Munteanu
240.	Romania	Environmental Regional Agency	Maria Lucia Popovici
241.	Romania	Environmental Regional Agency	Florina Ramona Stroe

242.	Romania	Environmental Regional Agency	Christiana Surdu
243.	Romania	Timisoara	Simona Giju
244.	Russian Federation	RosTechNadzor	Viktoryia Sapozhnikova
245.	Slovak Republic	Slovak Hydrometic Institute	Daniela Durkovicova
246.	Slovak Republic	Slovak Inspectorate of Environment	Bohuslav Bezuch
247.	Slovak Republic	Slovak Inspectorate of Environment	Zuzana Lacova
248.	Slovenia	Chamber of Commerce and Industry	Antonija Bozic Cerar
249.	Slovenia	Ministry of the Environment and Spatial Planning	Janko Zerjav
250.	Slovenia	Ministry of the Environment and Spatial Planning	Bernarda Znidarsic
251.	Slovenia	Slovenian Environmental Agency	Tone Kvasic
252.	Slovenia	Slovenian Environmental Agency	Tomaz Majcen
253.	Spain	A.I.I.C.A. - Research Association for the Leather Industries and Anexes	Dr. Jose María Adzet
254.	Spain	Anprogapor/COPA-COGECA	Dr. Carlos Pineiro
255.	Spain	Directory of Chemical Companies and Products (FEIQUE)	Laura Castrillo
256.	Spain	Government of Catalonia - Environment and Housing Department	Albert Avellaneda Bargues
257.	Spain	Government of Navarra - Environment, Town and Country Planning and Housing Department	Pedro Zuazo Onagoita
258.	Spain	Institute for Prospective Technological Studies	Miquel Aguado
259.	Spain	Institute for Prospective Technological Studies	Don Litten
260.	Spain	Institute for Prospective Technological Studies	Sirpa Salo-Asikainen
261.	Spain	Institute for Prospective Technological Studies	Bernd Serr

262.	Spain	Ministry of Environment	Dr. Inigo de Vicente-Mingarro
263.	Spain	Ministry of the Environment of Catalonia	Alfred Vara Blanco
264.	Spain	Solvay	Francisco Nuñez
265.	Spain	TIRME, SA	Isabel Socias
266.	Spain	University of Santiago de Compostela	Pastora Maria Bello Bugallo
267.	Sweden	Swedish Environmental Protection Agency	Erik Nyström
268.	Sweden	Swedish Environmental Protection Agency	Asa Wiklund Fredström
269.	Switzerland	SAEFL - Swiss Agency for the Environment, Forests and Landscape	Dr. Beat Müller
270.	The Netherlands	DHV - Consultancy and Engineering	Erwin Schenk
271.	The Netherlands	Dutch Emissions Authority	Joyce Sikking
272.	The Netherlands	InfoMil	Nicole Kerkhof-Damen
273.	The Netherlands	InfoMil	Martijn van Langen
274.	The Netherlands	Ministry of Housing, Spatial Planning and the Environment	Chris P.A. Dekkers
275.	The Netherlands	Ministry of Housing, Spatial Planning and the Environment	Aart Dijkzeul
276.	The Netherlands	Ministry of Housing, Spatial Planning and the Environment	Cees Hoppener
277.	The Netherlands	Ministry of Transport, Public Works and Water Management	Gerard de Vries
278.	The Netherlands	Shell	Johan Verburgh
279.	Ukraine	UkrNTEC	Vladimir Morozov
280.	United Kingdom		Dr. Rosemary Campbell

281.	United Kingdom	AEA Technology (Environment)	Paul R. James
282.	United Kingdom	Bernard Matthews Foods Ltd	Graham May
283.	United Kingdom	BP International Ltd	Dr. Keith Harsham
284.	United Kingdom	British Glass Manufacturers' Confederation	John Stockdale
285.	United Kingdom	Chemical Industries Association	Dr. Anne-Gaelle Collot
286.	United Kingdom	Department for Environment, Food and Rural Affairs	Richard Vincent
287.	United Kingdom	Environment Agency	Martin G Bigg
288.	United Kingdom	Environment Agency	Alastair Waite
289.	United Kingdom	Environmental Services Association	Sam Corp
290.	United Kingdom	Institute for European Environmental Policy	Dr. Andrew Farmer
291.	United Kingdom	Scottish Environment Protection Agency	Keir McAndrew
292.	United Kingdom	Sheridan Chambers	Norman Sheridan
293.	USA	International Finance Corporation	Christopher Frankel
294.	USA	International Finance Corporation	Alexander W. Indorf
295.	USA	Solar Turbines	Dave Schnaars

Conference Summary

On the Road to Sustainable Production in the Enlarged EU Integrated Pollution Prevention and Control (IPPC)

Summary

1 Introduction

The European Commission, DG Environment (hereinafter: the Commission) and the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety hosted a conference in Dresden (Germany) on 20 – 22 September 2005 entitled:

On the Road to Sustainable Production
in the Enlarged EU
Integrated Pollution Prevention and Control (IPPC)

The conference took place in Dresden from 20 to 22 September 2005 and stood under the auspices of the Prime Minister of Saxony. The conference consisted of a one-day **workshop** and a one-and-a-half-day **plenary session**.

In April 2000, an international conference on the implementation of the Directive 96/61/EC on integrated pollution prevention and control (IPPC Directive) organised by the German Federal Environmental Agency and Ecologic had taken place in Stuttgart. Entitled “The Sevilla Process: A Driver for Environmental Performance in Industry”, the aim of this earlier conference had been to provide information on the information exchange co-ordinated by the European IPPC Bureau (EIPPCB) in Sevilla (Sevilla Process) and the draft reference documents on best available techniques (BREFs), and to foster the increased application of environmentally advanced techniques in Europe.

Five years later, the 2005 conference in Dresden directly tied in with the Stuttgart conference and provided a forum to take stock of the progress made since then. The conference was directed towards stakeholders in new and old Member States. It provided a forum for the exchange of information, experiences and views on the current implementation of the IPPC Directive, the use of the BREFs and the future development of the Directive. A major issue was the deadline of October 2007 when all existing installations according to Annex I of the IPPC Directive will have to be operated according to the requirements of the IPPC Directive. The situation and the interests of the new Member States played an eminent role in developing the concept of the conference. The aim of the conference was to raise awareness of the paramount importance of the IPPC Directive for the prevention and control of industrial pollution and the development of sustainable production patterns. The conference assessed the effects of the IPPC Directive on the environmental performance of industrial installations.

The one-day workshop comprised four working groups assembling each about 30 experts from Member States, industry and environmental NGOs. The working groups dealt with the following practical issues:

- The practical application of the BREFs – From BAT to Emission Limit Values (WG 1);
- Existing installations – Meeting IPPC requirements by 2007 (WG 2);
- Interaction of the IPPC Directive with other EU Directives (WG 3);
- How to further promote good application of the IPPC Directive (WG 4).

A vital part of the plenary session of the conference were the issues discussed in the workshop. The rapporteurs of the working groups briefly reported on the outcomes of the workshop discussions in the plenary session. The scope of the plenary session, however, exceeded the scope of the workshop. Further highly political issues were thus treated in the plenary session such as the international impact and the future review of the IPPC Directive.

The following summary gives a short overview of the overall conclusions of the conference with regard to the issues discussed in the workshop and the plenary session.

2 Issues and conclusions of the Conference

2.1 Implementation of the IPPC Directive

The discussion on the implementation of the IPPC Directive in the workshop and the plenary session included considerations on the benefits, efficiency and gaps of the IPPC Directive and the Sevilla Process as well as the status quo of the implementation of the IPPC Directive. The practical use of the BREF documents played an eminent role in this discussion.

2.1.1 Evaluation of the IPPC Directive

In general the IPPC Directive was described by most participants as an innovative and most useful instrument to prevent and reduce pollution that emanates from industrial installations. The IPPC Directive implies a continuous information exchange that identifies the best available techniques (BAT) for the different types of installations in Annex I of the IPPC Directive. This information exchange is co-ordinated by the European IPPC Bureau (EIPPCB) in Sevilla (Sevilla process) and aims at the elaboration of BREFs. The process is generally welcomed as an efficient way to foster the dialogue between the different stakeholders. The BREFs are thus a product of an inclusive and dynamic dialogue and reflect a broad consensus of the participants in the Technical working groups (TWGs). The responsibility for preventing and controlling pollution remains in the hand of the operators of the different installations.

However, it was mentioned that there is still a lack of training in IPPC on the side of the permitting authorities. It was pointed out that, generally, skill and time is required in order to achieve the objectives of the IPPC Directive.

The speakers and the audience agreed that the IPPC Directive constituted an important instrument to achieve a more sustainable production. However, it was made clear that the IPPC Directive has the specific objective to subject industrial installations of Annex I to a permitting procedure for deriving permit conditions based on BAT. The IPPC Directive is therefore not suited to tackle other major sources of pollution such as transport and is consequently only one part of a mix of instruments to prevent and reduce environmental pollution in general. Other instruments may include emission trading, voluntary agreements and sectoral directives as well as the setting up of environmental quality standards.

Many speakers also referred to the necessity that the IPPC Directive be streamlined with sector-specific directives in order to facilitate the application of this legislation.

2.1.2 Use of BREFs

The use of the BREFs and its practical challenges were the issue of working group 1 of the workshop and were also broadly discussed in the plenary session.

The BREFs have to be taken into consideration by the Member States or the permitting authorities in the Member States when they issue general binding rules or permits for installations in Annex I of the IPPC Directive. Most Member States develop national legislation or guidance for the various kinds of installations. The BREFs are commonly considered when this legislation or guidance is developed or updated.

In general, the BREFs are considered to be a valuable source of information concerning the different existing and emerging techniques. Improvement and review of the BREFs were a common wish (see also 2.3).

The BREFs are also widely used outside the European Union, e.g. by the International Finance Corporation (IFC), the private sector lending arm of the World Bank Group, that is presently leading the review and update of the World Bank Group's industry sector guidelines. Furthermore, the BREFs are taken into account by the expert group that develops guidelines on BAT and Best Environmental Practices under the Stockholm Convention on Persistent Organic Pollutants (POPs).

The following aspects on the use of the BREFs refer to the use thereof by EU Member States.

Obligation to use the BREFs

The Commission pointed out that BREFs are not binding but important reference documents as to what is considered to be BAT for a certain type of installation. BREFs thus must be taken into consideration by the competent authorities.

Practical challenges in the use of BREFs

One problem in certain BREFs is the **lack of conclusive data for certain issues**: As a consequence, the BREFs do not always provide sufficient information on all important subjects, e.g. on such issues as BAT-associated emission levels (BAT-AELs) or energy efficiency. Due to the lack of specific and validated data the quality of BREFs and the BAT-determination may suffer.

The method of deriving a **common permitting standard**, i.e. the requirements laid down in the permit, from the information in the BREF, especially the BAT-AELs in the BREFs, has also remained open to discussion. The different national emissions monitoring methods impede the derivation of a comparable permitting standard for the various installations in the European Union. Therefore it was suggested that the European Commission develop a list of agreed monitoring standards and these standards be used by the Member States. For the time being, there was no consensus how the BAT-AELs can be used to set emission limit values (ELVs) for installations of Annex I of the IPPC Directive.

The **local circumstances** and their consideration in the permitting procedure was another important topic of the discussion. In particular, the method of laying down permitting conditions for installations in areas where a large number of industrial installations exist remained controversial. The Commission noted that permitting according to BAT is a mandatory requirement but may not be sufficient in certain circumstances. In areas where pollution is already high, permitting conditions according to BAT might not be sufficient to meet environmental quality standards (as for example established under the Water Framework Directive). From the perspective of an environmental NGO it was deemed necessary that the EU set new environmental standards, especially for water and soil.

However, it also became clear that, in practice and as an exception to the rule, less strict permitting conditions than those derived from the BREFs are also imposed by some Member States. There was no consensus as to how the “flexibility” attributed to the IPPC Directive can be interpreted, especially whether it entitles the Member States to derive from BAT associated emission limit values under certain circumstances. There was some controversy over the question whether the BREFs laid down a standard that would predetermine the permitting conditions or not.

One of the greatest hurdles to using BREFs effectively remains the language problem. Reading and sufficiently understanding the very technical issues raised in the BREF is proving to be difficult for industry and administration. In many countries, therefore, parts or all of the BREFs are

translated or summarised. The Commission pointed out that, due to time and budgetary constraints, it was unlikely that the BREFs would be provided by the Commission in more than one language. Furthermore, it was made clear that any translation would be the responsibility of whoever translates the BREF. The Commission will not issue approvals of translations.

Split views

Another major point in the discussion was the effect of divergent opinions, or "split views", on certain issues in the TWGs. Split views which are stated by members of the TWGs are often expressed with regard to BAT-AELs. It was noted that in general split views are rather rare. On the other hand, there are also BREFs that contain several split views. It was made clear by a representative of the EIPPCB that split views were only accepted if the TWG Member who stated the split view offered a convincing rationale for this split view. A representative of an environmental NGO, on the other hand, asserted that many split views were not in fact properly justified.

It was generally agreed that the TWGs should strive for a consensus and that where this consensus could not be reached a split view should be stated. It was admitted that the large ranges of BAT-AELs sometimes constituted a trade-off for avoiding split views. From this observation the conclusion was drawn that the TWGs should remain vigilant to arrive at a **challenging consensus** meaning expressing a high level of protection for the environment when finalising a BREF.

2.1.3 Meeting the 2007 deadline for existing installations

A major point of the discussion in working group 2 of the workshop and in the plenary session was the issue of meeting the IPPC requirements by October 2007 for existing installations. The discussion covered a broad range of topics including capacities of authorities as regards content and manpower and the quality of the permits all leading to the final question: Can the 2007 deadline be met?

Obstacles to meeting the deadline for existing installations

According to the IPPC Directive, existing installations have to meet the IPPC requirements by the end of October 2007. This obligation still seems to be a challenge for many Member States, even though a good number are confident of succeeding in this regard. During the discussion it became apparent that all Member States have already taken considerable actions to meet their legal obligations. But several obstacles nevertheless make it unlikely that the 2007 deadline will be met in all respects and for every installation.

For example, even though in some Member States the competent authorities are well equipped for the issuance of permits, some Member States have or will have manpower problems.

Bottlenecks are to be foreseen especially in those countries where many permit applications are expected at the end of 2006 or in 2007.

Another obstacle identified was the quality of permits. There seemed to be consensus that this issue could be tackled by co-operation between different authorities as well as between authorities and industry. Furthermore, both the competent authorities at the local level and industry seemed to welcome more guidance. Last but not least, co-ordination was identified as crucial to meet the time schedule, especially since the integrated approach required co-operation between many players and media specific experts.

One obstacle industry seems particularly worried about is that the deadline might be missed due to lengthy permitting and appeal procedures. Despite these worries the Commission stated clearly that ongoing appeal procedures will not serve as a valid excuse for missing the 2007 deadline. It is thus the obligation of the Member States to take these time-consuming procedures into consideration when drafting their time schedules for the IPPC-implementation. After the deadline any installation with permits which do not comply with the requirements of the IPPC Directive will be considered to be in violation thereof.

Some Member States plan to issue permits for existing installations which do not and will not meet the BAT standards by October 2007. Part of the permit will be an obligation for the installation to implement BAT in the years after 2007. A time schedule will be included in the permit outlining when and how the BAT standard will be achieved. The Commission pointed out that any implementation of this kind will have to be objectively based and transparently justified solely on the consideration of the factors set out in the Directive in order to ensure that the installation fully comply with the IPPC Directive by October 2007 at the latest. In any case, there must be binding conditions applicable as of October 2007.

Strategies to meet the deadline

Some approaches are commonly used to meet the 2007 deadline. In most Member States one or more of the following measures are taken:

- workshops;
- dissemination of best practice examples;
- a pro-active approach by the competent authorities;
- dialogue with industry;
- co-operation between the competent authorities and co-ordination of their work;
- external expert support.

Participants from many Members States seemed to regard legally binding rules as a good approach to shorten lengthy permitting procedures. Participants from other Member States

warned about lengthy legislative processes.

Some participants recommended a “phase-in approach” to prioritise the permitting procedures either according to different industries or to big and small polluters. This could help concentrate on one problematic source or industry sector at a time and thus improve the efficiency of the permitting process. Furthermore, this could help to assure that at least all of the main emitters will be in compliance with the IPPC requirements in autumn 2007.

Furthermore, it was stated that Member States should focus on application deadlines. In so doing, it could be assured that lengthy permitting procedures are taken into account when setting up time schedules for applications and permitting.

Overall it was pointed out, that Member States should not overlook that there were still two years until the deadline and a lot could still be accomplished.

2.2 Interaction of the IPPC Directive with other European Instruments

A major topic dealt with in working group 3 and the plenary session was the interaction of the IPPC Directive with other European instruments. The discussions in the conference focused on the interaction of the IPPC Directive with two sectoral directives: the Waste Incineration Directive (WID) and the Large Combustion Plant Directive (LCPD). The discussions concentrated on the question of whether and, if so, what changes to the directives were needed. The changes that were addressed fall in two categories: changes to achieve better regulation and changes that address the degree of harmonisation. As to the appropriate time for starting to work on possible changes, opinions differed. While some participants emphasised that the process had to be started immediately, others preferred further delay.

2.2.1 The need for change to achieve better regulation

It appeared from the discussion in working group 3 that the status quo was not considered to constitute good regulation. In fact, the discussions revealed that the current system raised a number of difficulties:

- understanding the legal relationship between the IPPC Directive and the sectoral directives;
- understanding the legal value of the BREFs;
- to a minor degree, the implementation of the directives in terms of deadlines and definitions of industrial sectors covered;
- how to streamline the requirements set out in the various directives and possibilities to adapt the existing directives swiftly to change. In this context, the laborious decision making process on the LCPD was mentioned.

In the face of such uncertainties, it was clarified during the discussions in working group 3 that, currently:

- the sectoral directives set ELVs which form minimum standards;
- the IPPC Directive and the sectoral directives had to be applied in parallel and independently from each other in terms of permit conditions, none of them prejudicing the application of the other;
- national emission reduction plans cannot exempt an installation from meeting the IPPC requirements;
- BREFs, while not legally binding, have legal relevance in that they have to be taken into consideration when determining BAT and thus permit conditions.

In addition, further proposals to tackle the existing difficulties and thereby achieve better regulation, more transparency and legal security were made. Possible options were discussed including:

- to reduce the number of instruments, in particular by introducing the requirements of the sectoral directives into the IPPC Directive;
- to keep the existing Directive and to issue guidance. It was mentioned that the drawback of any guidance was that guidance only reflected the view of the institution publishing it, while the ultimate interpreting authority remained with the European Court of Justice.
- to facilitate the decision making procedure. In this context, ways were explored on how to adopt ELVs outside the co-decision procedure, for example to create a technical regulatory committee. However, this idea was questioned from a legal and political point of view. In addition, it was said that it was much easier to come to an agreement on BREFs than on ELVs.

2.2.2 The need for change to achieve a proper balance of harmonisation and flexibility

The discussions referred to the status quo which was interpreted as follows: The IPPC Directive provides for a certain degree of flexibility. It refers to the definition of “Best Available Techniques” in a broad sense. In addition, it leaves room for the consideration of, inter alia, site- and installation-specific conditions when setting permit conditions. Certain sectoral directives, on the contrary, do not allow a case-by-case installation-specific approach, but provide the same emission limit values for all installations falling within their scope.

Arguments raised in favour of (more) harmonisation included:

- the transboundary character of emissions, which could only be addressed by harmonised EU-wide standards;
- the possible distortion in terms of competition in the absence of harmonised standards;

- the flexibility left in the Directive could pose a problem for industry in terms of planning and investment and, thus, compromise legal certainty;
- the risk of misuse of flexibility by Member States;
- the safety net function of ELVs.

Arguments raised against further ELVs and in favour of alternative approaches were that:

- the same results as ELVs could be reached by correct application of the IPPC Directive in a cost-effective way;
- the transboundary character of emissions should be considered in the framework of the IPPC Directive as it provided that long-range issues had also to be taken into account, when setting permit conditions;
- strengthening monitoring, reporting, compliance, enforcement, and inspections in respect of the IPPC Directive could lead to even better results than ELVs;
- the negative effects raised by unclear legal terms that need interpretation can be mitigated by general binding rules and guidance;
- it was extremely difficult and took a long time to come to a political agreement on ELVs. In addition, the outcome of such discussions could lead to lower level of environmental protection than the proper application of the IPPC Directive.

Arguments for (more) flexibility were:

- the necessity of being able to take into account site-specific conditions, in particular with regard to the specific costs arising for existing plants;
- that one size did not fit all in the EU.

2.2.3 The need to align Member State reporting obligations

Many speakers drew attention to the fact that several related Directives often oblige Member State authorities to draw up several parallel reports on their implementation (reporting obligations) including e.g. different pollutants, types or sizes of installations. These reporting obligations constitute a big challenge for authorities, who have to spend much time in order to comply with them. Therefore many speakers have called upon the European Commission to harmonise these reporting obligations.

2.3 The future development of the IPPC Directive and its application "Where do we want to stand in ten years?"

A major topic of the discussion at the conference (working group 4 and plenary session) was how to further promote a good application of the IPPC Directive at both the national and European levels and the review of the IPPC Directive.

General areas of discussion in the workshop and the plenary session included, inter alia:

- effective support for permitting authorities;
- better co-operation with industry;
- necessary improvements to the BREFs;
- efficient organisation of the BREF review process;
- further guidance needed;
- other issues relevant to the future development of the IPPC Directive (review of the Directive).

2.3.1 Effective support for permitting authorities

There was a general consensus that training and information exchanges as well as national guidance have been beneficial in supporting permitting authorities. Moreover, the translation of BREFs, in those MS where it has been undertaken, was identified as very helpful. Other techniques that were discussed and generally found beneficial included information centres and internet platforms.

Other means of support that were discussed and considered effective by some or most participants included the use of templates (either in the form of checklists or electronic forms) for permit applications, as well as the utilisation of third party (independent) expertise.

Regarding the issue of permitting approaches, some participants from MS with many installations felt that general binding rules had been very effective in supporting permitting authorities. However, some participants from MS in which there were relatively few installations saw no need for the promulgation of general binding rules in their MS.

2.3.2 Co-operation with industry

All of the MS recognised the importance of co-operation with industry for the implementation of the IPPC Directive, and fairly common practices include the consultation of industry at the national, regional and local level, working groups, both national and local, that include

representatives of industry and pre-permitting discussions with industry. Some participants saw a need for the simplification of permitting procedures; others cited environmental management systems (EMSs) and voluntary agreements with industry as important or positive developments.

The Commission pointed out that the upcoming review of the Directive will address EMSs and voluntary agreements, as well as economic incentives that could be considered at the national and European levels. In particular, the Commission stated that while an EMS alone is usually insufficient to guarantee compliance, the review will investigate the extent to which they are being used and are contributing to compliance.

2.3.3 Improvements to the BREFs

Discussion of necessary changes to the BREFs centered largely around two topics:

- The interrelation of chapter 4 describing all techniques to consider in the determination of BAT and chapter 5, which concludes on what is considered to be BAT for the sector in a general sense based upon the information in chapter 4, and
- the executive summaries of the BREFs.

With regard to chapters 4 and 5, there was a general consensus that chapter 5 could be improved and made more “handy”, yet the suggestions about how to do so varied. One common suggestion was the inclusion of a “checklist” for determining BAT. Moreover, it was felt that the BREFs would benefit from bi-directional cross-referencing between chapters 4 and 5, rather than the uni-directional referencing that exists now (chapter four is referred to in chapter five, but not vice-versa).

With regard to the executive summaries, while there was consensus that they should be improved, opinions varied on the substantive alterations that should be made. Although most participants felt that the executive summaries should be allowed to be longer than ten pages, others did not share this opinion. Some participants felt that BAT-AELs and BAT-associated consumption levels should be included in the executive summaries because they reflect BAT performance and are key findings of the BREFs.

2.3.4 Efficient organisation of the BREF review process

There was a clear consensus that changes to the BREFs should be done in such a way as to allow the tracking of changes. Opinions varied, however, on whether changes to the BREFs should be compiled in an amendment to the BREF or if it would be preferable to integrate the changes into the BREF.

It was also agreed that the review should focus upon the substantial new issues that have arisen, rather than re-open old areas of discussion. It was also argued that a clear procedure guiding the BREF review process would be beneficial.

2.3.5 Further guidance needed

With regard to further guidance that would be beneficial in implementing the IPPC Directive, it was recognised that the issue is being addressed by the IPPC Expert Group (IEG). There was agreement that for certain issues (such as the definition of "capacities" in Annex I) it would be helpful to have further guidance. Moreover, a need for consistency of definitions between Directives was cited. Additionally, some participants felt that the exchange of information on good practices regarding the implementation of the IPPC Directive would be helpful.

2.3.6 Other issues relevant to the future development of the Directive

With regard to the upcoming review of the IPPC Directive, the Commission explained that, given the review's ambitious scope, it will likely not be concluded before 2007. If the review process leads to a legislative proposal, the legislative procedure will be quite long and a new provision system will most likely not enter into force before 2012. The Commission emphasised that the review will have *no* impact on the 2007 deadline, which will remain unaffected.

3 Final conclusions and outlook

3.1 Panel Discussion

A panel discussion concluded the conference. All speakers of the panel discussion were invited to give a short statement. The speakers included representatives of:

- the Commission;
- new (1) and old (3) Member States;
- an industrial association;
- an environmental NGO.

3.1.1 Statements

The **Commission** made clear that it attached a high priority to the 2007 deadline for the full compliance of existing installations with the IPPC Directive. The Commission demanded strong efforts from the Member States to guarantee full compliance with the Directive. Notwithstanding the fact that the IPPC Directive guarantees flexibility, this flexibility is not to be abused. The Commission is in possession of the list of main emitters in the EU and will monitor the actions carried out by Member States to ensure the full implementation of the IPPC Directive. Moreover, the Commission made clear that the sectoral directives such as the LCPD and the WID set

harmonised minimum standards without prejudice to the IPPC Directive. Therefore it will not be sufficient to base permit conditions solely on these sectoral directives. Furthermore, the issue of a transparent implementation was raised. There could be a deeper information exchange concerning the implementation of the IPPC Directive.

The representatives of the **Member States** referred to different aspects of the implementation and the future development of the IPPC Directive:

- **consistent implementation:** the need for the consistent implementation across the EU of the BAT-based approach of the IPPC Directive was stressed. It was said that the Member States still needed to devise a method to carry out the integrated assessment in a consistent way, especially with regard to the way to determine permit conditions taking into account the BREFs. The Sevilla process has already done some work on cross-media leading to the BREF on economic and cross media issues under IPPC. However, satisfying all the criteria of the IPPC Directive might lead to different results in the Member States;
- **need for assessment** of the effects of the **IPPC Directive**: new means should be developed to assess the overall effect of the IPPC Directive (environmental effects but also effects on competitiveness). The European Pollutant Emissions Register/Pollutant Release and Transfer Register (EPER/PRTR) is one way of doing this;
- the **regulatory burden of the IPPC Directive** on companies should be kept proportionate (especially with regard to small and medium enterprises);
- need to ensure the **competency** of the competent authorities (regulators);
- urgent need to **streamline the IPPC Directive with other sectoral directives** and to **harmonise the reporting duties** of different Directives at the European level; it was also proposed to use the data collected via EPER/PRTR for more purposes than currently foreseen,
- proposal to complement the BREFs with **horizontal technical papers** that deal with certain substances, e.g. dust, irrespective of the installations from which they emanate;
- it was mentioned that the **new Member States** faced a particular situation: having recently acceded to the European Union, the new Member States still have to fully implement the requirements of the IPPC Directive. Sometimes the integrated approach was new to them as were consultations between regulators and operators. There are also some problems with regard to the capacities of the authorities;
- proposal of a new forum for the **exchange of views,** so as to create a common sense of the interpretation and the implementation of the IPPC Directive.

The representative of **industry** referred to the following aspects:

- European **industry participates** well and has much interest in the IPPC process; industry considers the IPPC Directive to be a positive instrument, particularly the three main components: BAT, flexibility and the integrated approach. Industry also welcomed that

economic issues are taken into account;

- the BREFs not only serve to help identify BAT. The BREFs are much more important, as they give indications as to what is the best way to operate an industry in the given case, taking into account economics and the integrated approach;
- industry's share of emissions and pollution is decreasing. The share of individual consumers to emissions is increasing, highlighting the need to focus on products as well as on processes.

The **environmental NGO** representative referred to the following aspects:

- the BREF-process needs to be intensified and the quality of the BREFs improved. Split views should be avoided and the ranges of BAT-AELs tightened;
- the participation of civil society in the IPPC process should be strengthened;
- the limits of IPPC should be clarified. IPPC is not suited to solve certain long-term problems, e.g. the phase-out of hazardous chemicals (e.g. POPs).

3.1.2 Discussion

In the discussion that followed the panel discussion many speakers agreed that forums are needed to follow the implementation of the IPPC Directive, facilitating also an information exchange between the stakeholders. There was no agreement whether existing forums (for example the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) or TWGs) would be sufficient or whether new structures should be created.

There was, however, agreement that the enforcement and compliance of the IPPC Directive had implications for the public's confidence in the administration. It became also clear that some Member States wanted to define their own strategies as to how the IPPC Directive is implemented, rather than be subject to strategies developed at the European level.

The Commission agreed that the evaluation of the effects of the IPPC Directive would be a highly important and challenging task in the review process.

3.2 Outlook

As a result of the conference, it has become clear that many positive effects have been achieved by the IPPC Directive and the Sevilla Process and that the approach of the IPPC Directive works successfully.

Yet, many open questions concerning the IPPC Directive, its implementation and its effect on the environment and society/economy remain to be answered in the upcoming years.

The Federal Ministry of the Environment, Germany offered to host another IPPC Conference in

five years to take stock of the developments that the IPPC Directive and the Sevilla Process will have gone through by then.

The Commission thanked all the participants for their active contribution to the success of this conference and hoped that this event can be a support for Member States and operators in their efforts to fully implement the IPPC Directive.

Workshop

Workshop

Introduction Workshop

As preparatory material for the working groups of the workshop, the German Federal Environmental Agency (FEA) and the organising institute Ecologic, in close co-operation with the European Commission, developed one questionnaire for each working group containing questions relevant to the topic of the working groups. The questionnaires were sent to the contact persons in the Member States as well as other selected countries.

The answers to the questionnaires are to be regarded as contributions by national experts and do not necessarily reflect official positions of the Member States. They were summed up in four **synthesis reports** that are included in these conference proceedings. The synthesis reports were distributed to the participants of the workshop. Due to time limitations, the synthesis reports generally only took into consideration those answers that were sent back to Ecologic by 2 September 2005.

On the condition that the contact persons of the Member States explicitly agreed to the publication of their answers, the original answers to the questionnaire can be found on the CD that has been sent along with these conference proceedings. The synthesis reports might slightly differ in their overall content compared with the questionnaires included on the CD, because the synthesis reports consider only those questionnaires, which were submitted until 2 September 2005.

On the other hand the CD includes those questionnaires, which were submitted after the 2 September 2005, but not all questionnaires could be included on the CD since some experts did not explicitly agree to publish their filled-in questionnaire on the CD.

The discussions in the working groups were based on the questions and answers to the questionnaire but treated also other issues that were brought up by the participants of the working groups. In the workshop plenary session including all participants of the four working groups, the results of the discussions in the working groups were presented. These **presentations** are also included in these conference proceedings.

Synthesis Report Working Group 1

Evaluation of the Questionnaire for the Working Group 1:

The practical application of the BREFS: From BAT to Emission Limit Values

This paper proposes possible key discussion points for the working group (see section I) and gives background information for the participants (see section II). The information is based upon a questionnaire that was sent to the Member States (MS), the candidate countries as well as Norway, Switzerland and Turkey. The questionnaire covers the issues to be discussed in the working group 1 (see workshop programme). The answers will provide a basis for a fruitful discussion in the working group.

Working Group 1 deals with the practical application of the BREFs and treats the following **key issues**:

1. How to derive emission limit values from the range of BAT-AELs in the BREFs

2. How to deal with split views

I. Key Discussion Points

The answers to the questions give insight into the use of the BREFs by the Member States and other countries. All have reported that they use the BREFs when permitting installations.

Looking at the emission limit values the responding countries impose, it becomes clear that they vary from country to country, as do the various countries' monitoring methods. Some of the emission limit values far exceed the BAT-associated emission levels.

Split views are taken into consideration by some, but not all, of the Member States that have answered the questionnaire. The **key discussion points** of the working group might thus be:

Large Ranges of emission levels:

- Which methods have proven to be effective in determining BAT-associated emission limits when a certain BREF contains large ranges of emission levels (exemplified by the Cement & Lime and the Refinery BREF)?
- Can a Member State / a permitting authority deviate from BAT under certain conditions?
- How do the applied monitoring methods have to be taken into account when assessing whether imposed emission limit values are based on BAT?

Split views:

- Under which conditions do the Member States / permitting authorities take split views into account?
- Do split views endanger the objective of the IPPC Directive to achieve a high level of protection of the environment?

II. Synthesis

Responses were received from 4 old Member States, 4 new Member States, a candidate country that has already transposed the IPPC Directive into national law and a non-member State.[1] ,[2]

1. Identifying BAT-based Emission Limit Values

1.	**How are BAT-based ELVs implemented in your Member State?**	☐	By case-by-case based permits according to Article 9(4) of the IPPC Directive
		☐	By general binding rules according to Article 9(8) of the IPPC Directive
		Comments:	

1 Due to time limitations, only answers submitted till 2 September 2005 have been taken into account in this synthesis. A complete compilation of all received answers is provided in a separate table, which is available on the internet www.ecologic-events.de/ippc-workshop . The username and the password were sent to you by e-mail.

2 It was sometimes difficult to interpret the received answers. In these cases, it was attempted to interpret an answer in the context of the other answers received from this respondent. However, the possibility of mistakes of interpretation cannot be excluded.

	Case-by-case permitting	General binding rules	Combination of case-by-case permitting and general binding rules[3]
Number of answers	**6**	**3**	**1**

2. Do the BREFs play the significant role when your Member State / the permitting authorities in your Member State lay down emission limit values based on BAT?

If so, please specify how.

All states have answered affirmatively. The BREFs are regularly taken into account when the Member States / the permitting authorities lay down emission limit values based on BAT.

All 6 respondents which implement BAT-based ELVs case-by-case consider the BREFs when laying down ELVs in the permit. The BREFs are, moreover, taken into account when those states develop national guidelines for regulators. Four of them state that the BREFs are a very important source of information for their work.

All 3 respondents that implement BAT-based ELVs by general binding rules take the BREFs into account when the media specific legislation is amended. The concrete procedures in BREF-based updates of legislation vary, however. In addition, the permitting authorities also consider the BREFs when they set the permitting conditions for installations. All three Member States that implement the IPPC Directive via general binding rules use the BREFs in addition to the national legislation in one way or another.

3. Does your Member State / do the permitting authorities in your Member State use other sources of information for laying down these emission limit values?

If so, please specify what sources of information.

All countries have answered affirmatively. A variety of information is used in addition to the BREFs. Examples cited include:

- national guidelines / national legislation;
- professional organisations' data and advice from consultants and engineering contractors with experience in the building of plants in the industry sector concerned;

3 E.g. by fixing minimum requirements (e.g. ELVs) in general binding rules for certain types of industrial installations parallel to the requirements on the permitting authorities to base all permits on BAT.

- consultations with industrial and green associations and with other concerned stakeholders;
- emission control regulations of other industrial countries (for example the German TA Luft or VDI is cited three times) or international regulations (for example OSPAR, HELCOM and UN ECE);
- information from IMPEL;
- references to similar installations;
- recent licenses and current emissions data from installations with good environmental performance.

4. How do the permitting authorities in your Member State take the Art 9(4) factors, such as technical characteristics of the installation concerned, its geographical location and the local environmental conditions into account?

Most countries require information on technical characteristics, etc. in the application form, and their permit conditions reflect the Art 9(4) factors. Only one MS states that the Art. 9(4) factors are not taken into account.

The respondents that implement the BAT-associated emission levels via case-by-case permits all consider the technical characteristics of the installation concerned, its geographical location and the local environmental conditions. However, it is unclear whether this may result in that permitting authorities lay down weaker or stronger conditions for the various installations than BAT (please see also question 5 for clarification).

Three respondents that implement the BAT-associated emission levels via general binding rules generally do not allow the setting of weaker requirements than those in the general binding rules, although exceptions do exist. However, stricter values or conditions than BAT can be applied if the environmental conditions in a particular region make it necessary.

5. Under which circumstances is it, in your view, consistent with the concept of BAT and the IPPC Directive to fix weaker emission limit values (ELVs), relative to the normal standards of BAT, in a permit in cases where the environmental media surrounding the industrial installation (due to its geographical location) could handle more emissions without exceeding environmental quality standards or causing significant pollution?

Most of the countries said that local circumstances could not justify the deviation from BAT-based emission limit values.

However, one country noted that the technical characteristics (including investment cycles and expected lifetime) of an installation might justify less strict emission limit values. Another country allows the deviation from BAT-associated emission limit values in its water legislation for a limited time, as long as the operator could prove that no environmental harm will result from this.

6. How do industrial organisations and/or green NGOs participate in identifying emission limit values based on BAT?

Industrial organisations and green NGOs participate in the identification of emission limit values in all the countries that responded. The manner of this participation, however, varies. The following examples have been given:

- participation in the specific permitting procedure for an installation.
- participation in the elaboration of general binding rules
- participation in the elaboration of national guidance

2. Specific Problems of BREFs

2.1 Large Range of Emission Levels

	Please fill in this column if your Member State im-plements the IPPC Directive via general binding rules	**Please fill in this column if your Member State implements the IPPC Directive via case-by-case permits**
7. **What representative emission limit values / average emission limit values does your Member State / do the permitting authorities in your Member State derive from the large range of NOx emission levels (200-500 mg/Nm³) and the smaller range of dust emission levels (20-30 mg/Nm³) for the cement industry in the Cement and Lime BREF?**	What emission limit values are prescribed by the general binding rules?	Which ranges of emission limit values are specified in the permits?
	ELV Unit	Range of ELV Unit
	NOx	NOx
	Dust	Dust
	Comments:	

Nox:

As can be seen in the Figure 1 below, the emission limit values that are imposed far exceed in some cases the ranges of BAT-associated emission levels in the Cement and Lime BREF. It must, however, be taken into consideration that the Cement and Lime BREF contains a split view with regard to NOx emissions that states that the emission level associated with the use of BAT is 500-800 mg/m³[4]. Therefore some states might base their emission limit values on this split view.

4 Another view expressed in the BREF holds that selective catalytic reduction (SCR) is BAT with an associated emission level of 100-200 mg/m³.

Most of those countries that go beyond 1000 mg/Nm³ prescribe daily average values as their averaging period (see question 12). The different monitoring methods employed as well as different reference conditions make it difficult to assess whether the prescribed emission limit values are based on BAT or not.

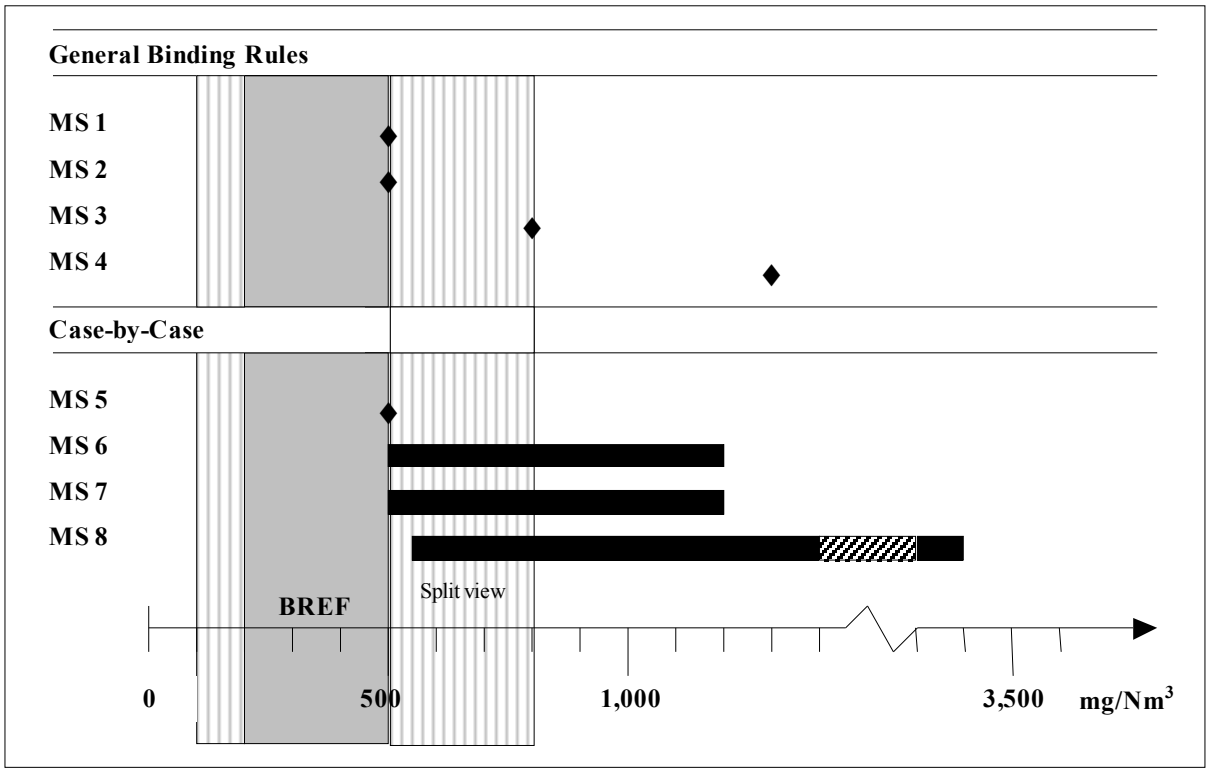


Figure 1 Applied ELVs regarding NOx emissions for the cement industry

Dust:

Figure 2 illustrates the emission limit values for dust reported by the MS in the cement industry. The respondents which go beyond 50 mg/Nm³ use daily average values when they monitor dust in cement kilns. It has not become clear from the answers whether the permits for existing installations have already been adapted to the BREF / BAT or not.

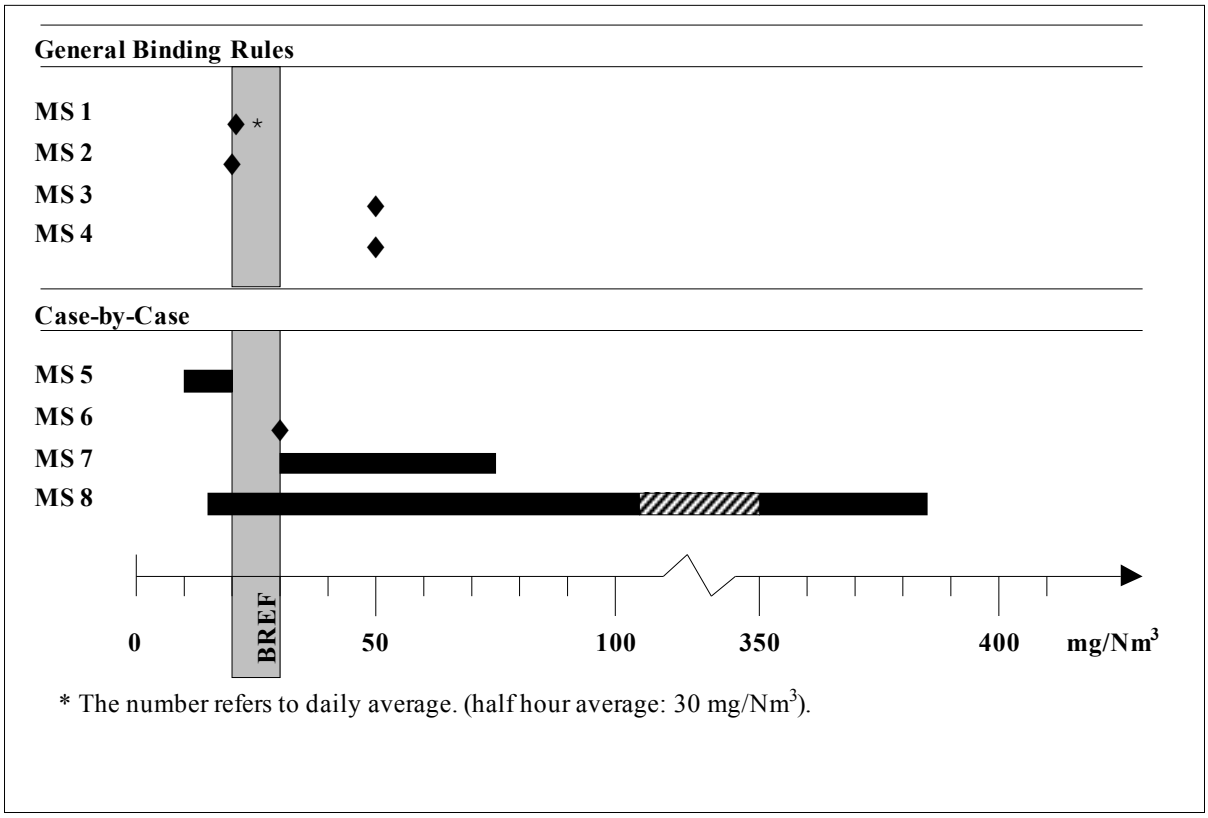


Figure 2 Applied ELVs regarding dust emissions for the cement industry

8. What emission limit values does your Member State / do the permitting authorities in your Member State derive from the large range of NOx emission levels (10-450 mg/Nm³) in the Refinery BREF as well as dust and SOx emission levels (dust: 10-50 mg/Nm³, SOx: 10-350 mg/Nm³) in the field of the Fluid Catalytic Cracking (FCC)-technique in the Refinery BREF?	What emission limit values are prescribed by the general binding rules?	Which ranges of emission limit values are specified in the permits?
	ELV Unit	Range of ELV Unit
	NOx	NOx
	SOx (FCC)	SOx (FCC)
	Dust (FCC)	Dust (FCC)
	Comments:	

One Member State does not possess any refineries, and another stated that there has not been any IPPC permit yet in the refining industry. Yet another Member State does not have a special ELV for Fluid Catalytic Cracking.

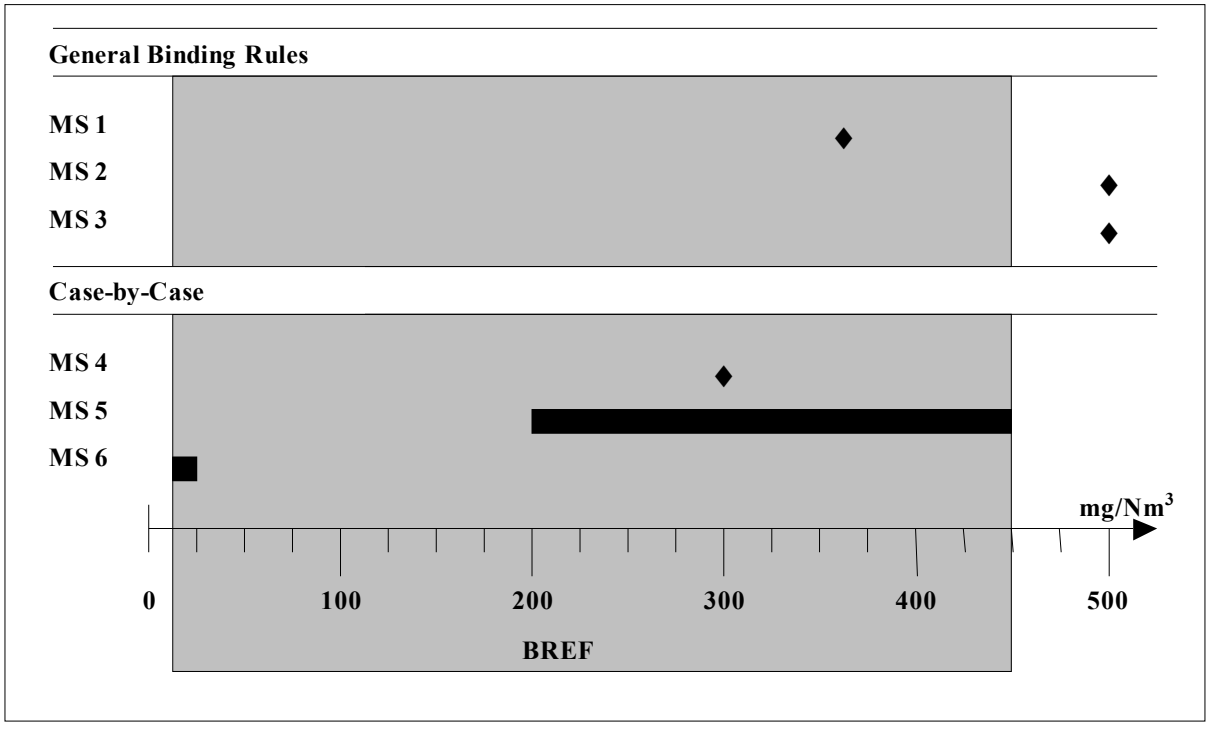


Figure 3 Applied ELVs regarding NOx emissions for refineries

NOx:

Figure 3 illustrates the emission limit values for NOx emissions reported by the respondents for refineries. The emission limit values imposed for NOx lie in most cases within the range of the emission levels in the BREF or exceed it slightly.

SOx:

Figure 4 illustrates the emission limit values for SOx emissions reported by the respondents for refineries in the field of fluid catalytic cracking (FCC). The emission limit values imposed for SOx reported by the MS exceed in most cases the emission levels in the Refinery BREF. One state will adapt its general binding rules before 2007. Most answers do not make clear whether the emission limit values of existing installations will be adapted or have already been adapted since the BREF was published. The different monitoring methods employed as well as different reference conditions make it difficult to assess whether the prescribed emission limit values are based on BAT or not.

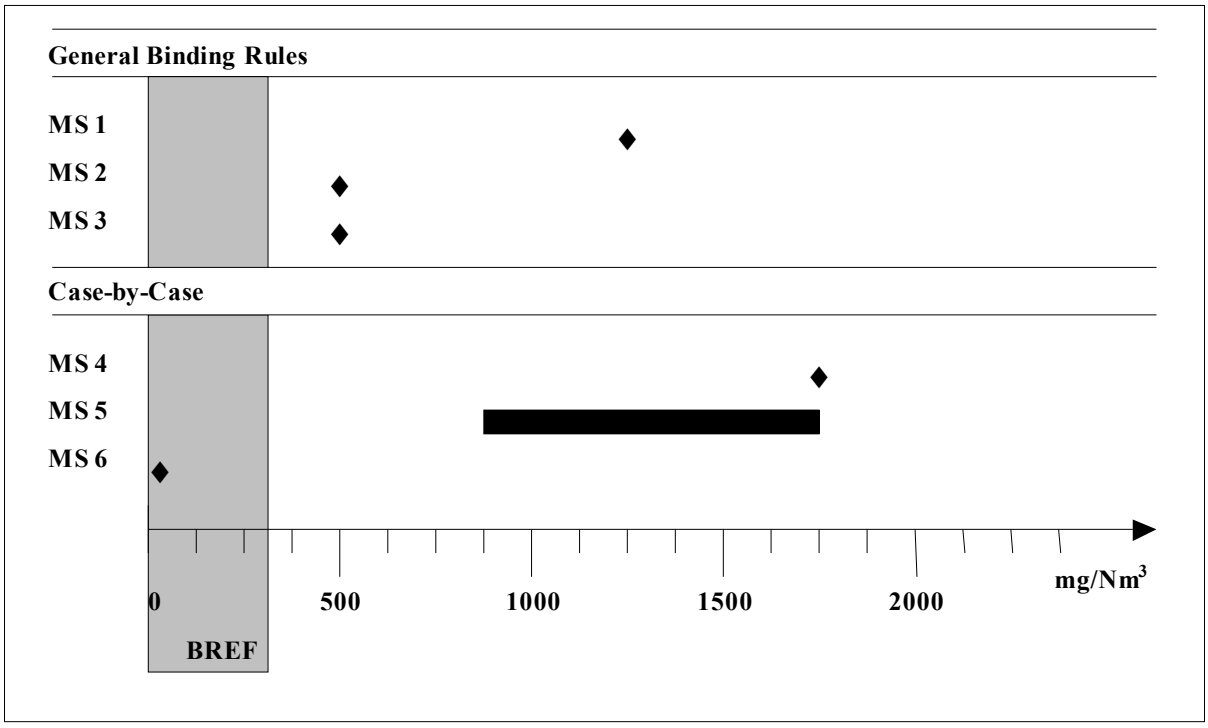


Figure 4 Applied ELVs regarding SOx emissions for refineries in the field of fluid catalytic cracking (FCC)

Dust:

Figure 5 illustrates the emission limit values for dust emissions reported by the respondents for refineries in the field of fluid catalytic cracking (FCC). In general, the emission limit values for dust lie within the ranges of the emission levels of the Refinery BREF. There are only two exceptions which impose ELVs of 100 mg/m³ and 150 mg/m³.

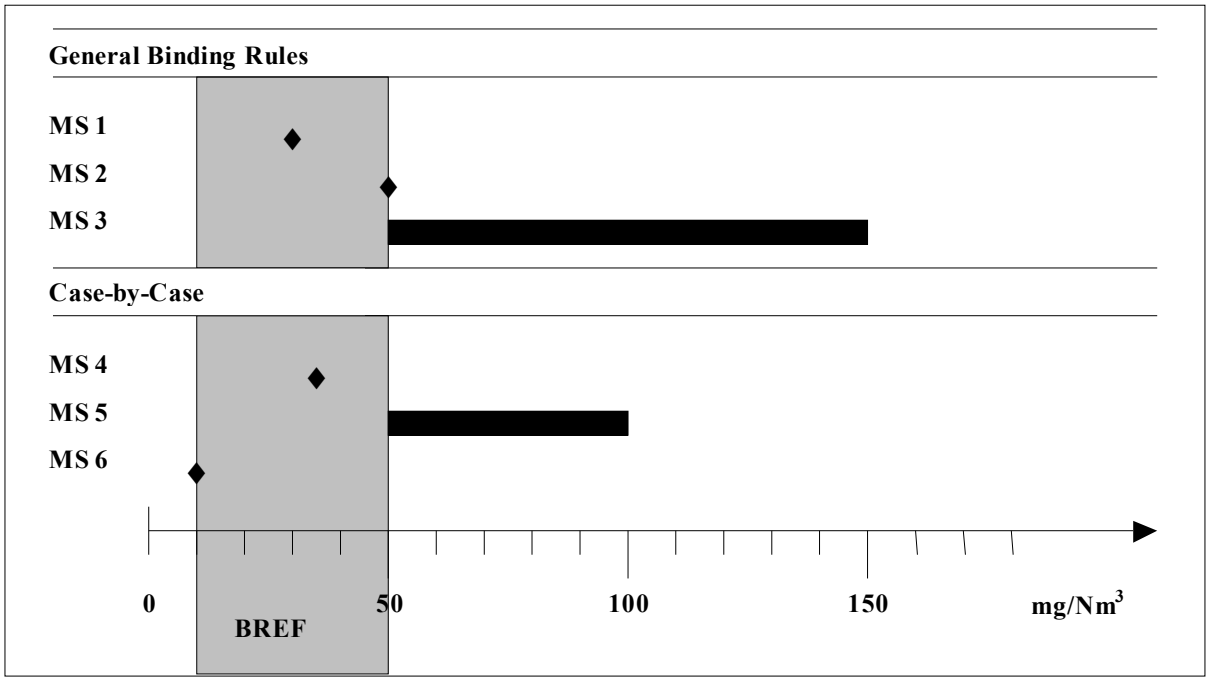


Figure 5 Applied ELVs regarding dust emissions for refineries in the field of fluid catalytic cracking (FCC)

2.2 Split Views

9. How does your Member State / do the permitting authorities in your Member State understand split views and assess their effects?

The answers of the Member States do not reflect a consensus as to understanding split views and assessing their effects.

Two Member States out of 7 answers regard the existence of split views as rather hampering the effectiveness of the BREFs, as they signify disagreements in the development of the BREF conclusions. On the other hand, one Member State holds that split views reflect local conditions and take into account economic and social considerations. Another Member State notes that the presence of split views results in higher caution when BAT-associated emission limit values are being laid down.

The general impression from the answers received is that split views are taken into account on a case-by-case basis or while elaborating general binding rules by the Member States.

10. Has your Member State / have the permitting authorities in your Member State taken the split view in <u>the Cement and Lime BREF</u> concerning NOx emissions (BAT associated emission levels in the cement industry, 200-500 mg/Nm³) or the split views concerning the "bubble-concept" of SOx (50-1,400 mg/Nm³) for refineries in total in the <u>Refinery BREF</u> into account when determining emission limit values? **If so, please specify what consequences this has.**	**BREF**	**Parameter**	**Considered the split view?**
	C&L	NOx	☐ Yes please specify: ☐ No
	RAF	SOx (refineries)	☐ Yes please specify: ☐ No

Split View	Number of answers	Yes	No
Cement and Lime	8	4	4
Refineries	8	2	6

1. Cement and Lime: Four Member States have said that they have considered the split view in the Cement and Lime BREF concerning NOx. They have referred to different aspects: use of SNCR, SCR, emission levels (one Member State has imposed emission limit values for NOx from 500 to 1.200 mg/m³), influence of the used fuel on the emission levels.
2. Refineries: one Member State has imposed ELVs for SOx from 900-1,700 mg/m³, according to the type of fuel used. Another Member State has incorporated a newly-developed methodology for setting ELVs, which takes into account the location and configuration of the refinery, as well as its impact on its surroundings. From the answers it becomes clear that one state refers to the split view that puts into question the bubble concept as a whole. It might be discussed if emission levels are still needed for the bubble concept.

2.3 Missing or not well-defined BAT-AELs

11. How does your Member State / do the permitting authorities in your Member State derive BAT-based emission limit values in cases where the BAT associated emission levels are missing or are not very well defined in the BREFs?

The Member States' answers to this question largely correspond with those to question 3. Among the sources of information used are:

- national guidelines / legislation;
- references about similar industrial processes;
- international references; and
- the experience of expert consultants or contractors.

2.4 Specific Parameters for the Implementation of the BREFs – the example of monitoring

12. How does your Member State / the permitting authorities in your Member State monitor the emission levels of NOX and dust in the cement industry (C&L) as well as the emission levels of NOX and the water related emission levels of total nitrogen (N) and ammoniacal nitrogen (as NH4 - N) in refineries (RAF) (method of monitoring, choice of averaging period, sample duration, units of monitoring)?	**BREF**	**Parameter**	**Method (click and select)**	**Averaging Period (click and select)**	**Units of monitoring (click and select)**
	C&L	NOx	continuous	yearly average: other:	concentration
	C&L	*Dust*	continuous	yearly average: *other:*	concentration
	RAF	NOx	continuous	yearly average: *other:*	concentration
	RAF	N(total)	continuous	yearly average: *other:*	concentration
	RAF	NH4-N	continuous	yearly average: *other:*	concentration

The following table lists the monitoring methods of the respondents (not all respondents have answered).

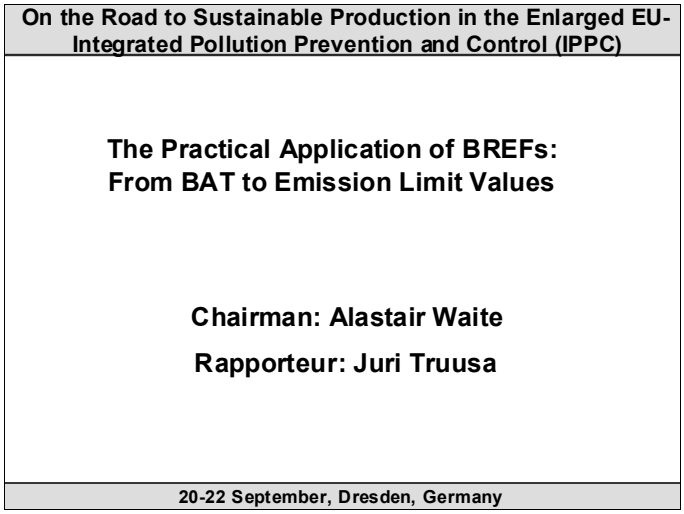
BREF	Parameter	Method	Averaging Period	Units of monitoring
C & L	NOx	• Continuous (6) • Discontinuous (1)	• Yearly average (3) • Daily average (3) • Half-hour value and daily value (max. twice the ELV) (1)	• Concentration (4) • Specific load per production (1)
C&L	Dust	• Continuous (6) • Discontinuous (1)	• Yearly average (3) • Daily average (2) • Half-hour value and daily value (max. twice the ELV) (1) • Random Sampling (1)	• Concentration (5) • Specific load per production (1)
RAF	NOx	• Continuous (5) • Discontinuous (1)	• Yearly Average (3) • Daily Average (2) • Within a period of six hours six half hour mean values have to be determined (1) • Half-hour value and daily value (max. twice the ELV) (1)	• Concentration (4)
RAF	N(total)	• Continuous (3) • Discontinuous (2)	• Yearly Average (1) • Daily Average (2) • Random Sampling (1) • Each 2-hour composite sample or 4 of 5 (qualified) random samples have to fulfil the ELV requirements (1)	• Concentration (4)
RAF	NH4-N	• Continuous (3) • Discontinuous (2)	• Yearly Average (1) • Daily Average (2) • Random Sampling (1) • NH4-N is not used as a monitoring parameter (1)	• Concentration (4)

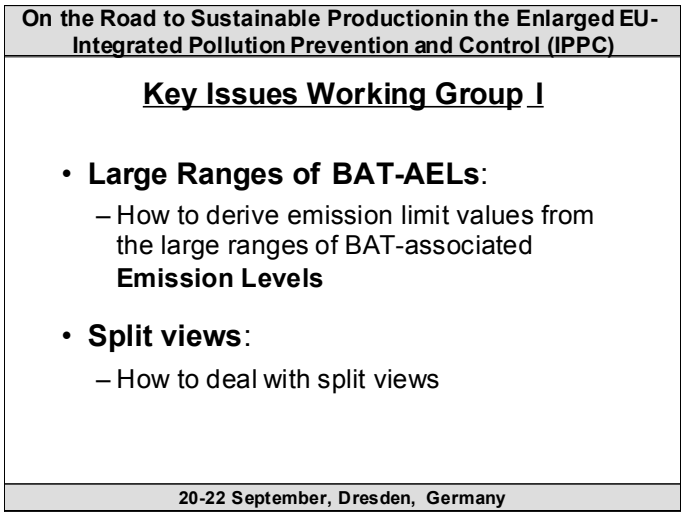
As can be seen the Member States use different monitoring methods in their national legislation or in the permits, which renders the comparison of the data more difficult although for some parameters there is a certain consistency in monitoring. Depending on the substance the different monitoring methods vary more or less.

13. How does the applied monitoring in your Member State generally correspond to the monitoring linked with the BAT associated emission levels in the BREFs?

The BREFs can describe but do not determine methods for monitoring (type of sampling, duration etc.) Therefore the methods the MS use vary greatly and are not easy to compare. The Member States lay down their own monitoring methods on the national level or in the permit. Three Member States (out of 7) say explicitly that the monitoring methods comply with BAT requirements.

Presentation Working Group 1





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Conclusions

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Use of BREFs

- Member States are active in the use of BREFs
- BREFs are used as information sources to prepare
  - the national legislation (ordinance, general binding rules)
  - guidance or guide notes
  - case by case determinationsin permitting process

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Use of BREFs (national level) and transposition into ordinance / guidance

- Participation of industry is sufficient and active
- The participation of environmental NGOs is sporadic but more active at the EU level

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Emission Limit Values vs. BAT-associated emission levels

- Emission Limit Values serve the protection of the environment as a whole
- BAT-associated emission levels (ranges) describe what can be achieved
  - Problem: different monitoring methods and standards
  - sometimes missing/ limited data

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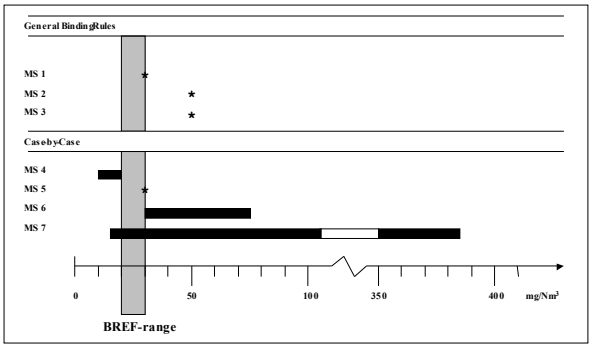
ELVs vs. BAT-AELs (Dust C&L)



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Considering local circumstances in permitting

- Local circumstances are taken into account:
  - prescribing tighter ELVs than ELVs derived from BAT AELs is possible and done
  - relaxing ELVs compared to ELVs derived from BAT AELs is the exception

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Harmonisation of Monitoring Standards needed at the EU level

- List of agreed monitoring standards needed
- Use of these monitoring standards by the Member States

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Split views

- Split views are relatively rare
  - Sometimes they are hidden by large ranges of emission levels
- Existing experience of split views is not endangering the IPPC objectives
- Technical Working Groups should find a challenging consensus on what is BAT

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Thank you for your attention.

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Synthesis Report Working Group 2

Evaluation of the Questionnaire for the Working Group 2:

Existing Installations: Meeting IPPC requirements by 2007

This paper proposes possible key questions for the working group (see I) and gives background information for the participants (see II). The information is based upon a questionnaire that was sent to the Member States, the candidate countries as well as Norway, Switzerland and Turkey. The questionnaire covers the issues to be discussed in the working group 1. The answers will provide a basis for a fruitful discussion in the working group.

Working group 2 deals with the implementation of the IPPC Directive and treats the following **key issues**:

1. Possible problems with the implementation of the IPPC Directive in general
2. Specific problems related to updating existing permits
3. Specific problems related to meeting the October 2007 deadline.

I. Key discussion points

The answers to the questionnaires revealed that there is a variety of approaches to the implementation of the IPPC Directive in the different countries. These answers raise a number of additional questions, which could be clarified in the working group.

The meeting of the October 2007 deadline is liable to pose particular problems to Member States. The identification of these problems could be a task of the working group.

A number of countries apply strategies to meet the general challenges in the implementation of the IPPC Directive, as well as the specific challenges related to the meeting of the October 2007 deadline. These might be discussed in the working group.

Key discussion points may include:

1. How do Member States currently implement the permitting system under the IPPC Directive? In particular, how do Member States implement the integrated approach? Are there any deficiencies with regard to the number of permits issued? With regard to permit requirements, are there particular problems encountered by those Member States which use the case-by-case approach? Are there installation-specific problems? Are there problems identified for specific industrial sectors? To what extent have Member States adapted their national systems to the requirements of the IPPC Directive?

2. What are the specific problems for Member States in meeting the October 2007 deadline?

3. What could be possible solutions to the identified problems? Would it be a good idea to provide guidance electronically? Should states co-ordinate amongst themselves when issuing national guidance documents?

II. Synthesis of the answers to the questionnaires

Twelve countries (six old Member States, five new Member States, and a candidate country that has already transposed the IPPC Directive into national law) responded to the questions relating to working group 2. This section gives a synthesis of their answers.[5,6]

1. Situation in the Member States Prior to the IPPC Directive

1. How many installations according to Annex I of the IPPC Directive exist in your Member State?

The number of IPPC installations varies significantly between the responding countries. It ranges between as many as 7705 and as few as 83, altogether 24400 IPPC installations are present in the 12 countries which have answered to the questionnaire. The distribution is as follows: 3 countries have less than 500 installations, 2 countries have between 500 and 1000 installations, 5 countries have between 1000 and 5000 installations and one country has more than 5000 installations. Additional research has shown that the number of IPPC installations per inhabitant varies between 1 installation per 7000 inhabitants and 1 installation per 28000 inhabitants. Most countries, independent of their size, exhibit a similar density of IPPC installations per inhabitant,

5 Due to time limitations, only answers submitted till 2 September 2005 have been taken into account in this synthesis. A complete compilation of the received answers is provided in a separate table, which is available on the internet www.ecologic-events.de/ippc-workshop . If answers were marked as informal information they are not cited or put on the internet. The username and the password were sent to you by e-mail.

6 It was sometimes difficult to interpret the received answers. In these cases, it was attempted to interpret an answer in the context of the other answers received from this respondent. However, the possibility of mistakes of interpretation cannot be excluded.

with an average density of around 1 installation per 14000 to 15000 inhabitants. This allows the conclusion that most countries will likely encounter some similar challenges or problems in the implementation of the IPPC Directive.

2. Did the requirement of a permitting procedure for the industrial installations listed in Annex I of the IPPC Directive exist in your Member State before the IPPC Directive came into effect? (Yes/No)
If so, did this system already comply with the criteria and the integrated approach of the IPPC Directive? (Yes/No/Partly).

Out of the 12 countries responding to the questionnaire only two did not have a permitting procedure in place for Annex I installations prior to the IPPC Directive. The pre-existing procedures completely complied with the criteria and integrated approach of the Directive in two countries and complied partly in eight countries. Most countries listed the integrated approach as being new to their existing permitting procedure.

3. Were any changes in the administrative structure and procedures necessary in your Member State in order to comply with the IPPC Directive? (Yes/No)
If so, please specify what changes were necessary.

In seven out of twelve countries changes to the administrative structure and/or procedure were necessary to comply with the Directive. In four countries a new administrative structure was needed. These countries created new administrative units for an integrated permitting procedure. In three other countries merely procedural changes were made, such as changes to regulations and the creation of special application forms.

4. Is one single authority responsible for the issuing of the IPPC permits or do the IPPC permits have to be coordinated among several authorities? (Single authority/Several authorities)

In six countries a single authority is responsible and in six countries there are several authorities in charge. The six countries that have only a single authority are either small states or candidate countries. In the countries that have a single authority, this authority may have regional subsidiaries to facilitate the permitting procedure.

In the countries where several authorities are responsible, the co-operation details vary. One country established a special co-ordination authority. In most countries a consultation with other expert authorities is necessary. In two countries separate authorities have to be integrated in the procedure if an installation makes direct emissions to the river basin or waste water discharges.

In two countries some parts of the country have a single responsible authority, while other parts have several co-ordinating authorities.

5. Do the operators of an IPPC installation need one permit or several? (One Permit / Several Permits)

In eight countries only one permit is issued. In the other 4 countries separate permits may be necessary. While in one of these countries a second or third permit is only issued if a part of the installation is changed later, in the other three countries an extra permit is needed for certain activities (e.g. for water use or water discharge, for trade, for import of hazardous substances or for chemical safety or mining).

2. Different Strategies for the Implementation of the IPPC Directive in the Member States

6. How is the IPPC Directive implemented in your Member State?	☐	By case-by-case based permits according to Article 9(4) of the IPPC Directive
	☐	By general binding rules according to Article 9(8) of the IPPC Directive

Nine out of twelve responding countries implement the IPPC Directive by case-by-case permits according to Art. 9(4) IPPC Directive. Two countries enact general binding rules. One country implements the IPPC Directive by using both case-by-case based permits and general binding rules.

7. How does your Member State / do the permitting authorities in your Member State implement the BAT requirements in Annex IV of the IPPC Directive in the permits when no BREFs are available for a certain kind of installation according to Annex I of the Directive?

Where no BREFs are available for a certain kind of installation, Member States determine BAT in the following ways:

- Employment of national guidelines / setting of permit conditions
- Incorporation in the general binding rules
- Case by case assessment
- Evaluation on the grounds of all existing information such as draft BREFs, BAT Reference notes

and BATNEEC Guidance Notes (i. e. ”best available techniques not entailing excessive costs guidance”, published by the EPA Ireland), general knowledge and experience, voluntary agreements

8. Are / Will the permits / general binding rules of a certain category of IPPC installations be examined / updated when a new BREF covering this kind of installations comes out? (Yes / No)

One country reported that this was not the case. Three countries said it was the case without restriction. Eight countries maintained that this was the case where BREFs lead to substantive changes (6 countries) or obvious improvement (1 country), or where the conditions of Art. 13 IPPC Directive were met (1 country). Of these eight countries, three explicitly referred to the fact that they have regular updating procedures in place, independent of whether a BREF has changed or not.

9. Have references or guidelines for BAT been elaborated as a help for permitting authorities in your Member State? (Yes/No)

If so, please specify what kind of guidance

In nine out of twelve Member States BAT references or guidelines have been elaborated and/or translated. In six of these states guidelines for different sectors are in use, although how many and for which sectors varies between the countries. One of the country that uses general binding rules underlined the fact that general binding rules have themselves a guiding effect, making additional guidance unnecessary. In some countries guidelines are available on the Internet.

3. Strategies for Meeting the 2007 Deadline - An Assessment and Outlook

10. Are there any examples of ”good practice” in cooperation between different permitting authorities regarding the implementation of the IPPC Directive? If so, please give at least one example.

Eight of the twelve responding countries identify examples of ”good practice”. These comprise measures of cooperation as well as training measures.

Cooperation is ensured by the following measures:

- Installation of consultation processes between permitting authorities.
- Good co-operation techniques between the different authorities in charge
- Networking between experts and stakeholder platforms

- In some states training programmes have been implemented and seminars held. The training measures mentioned are:
  - Meetings between the different disciplines (between various technical experts or between technical and legal experts)
  - Sharing of experience in regular meetings between concerned authorities
  - Site visits
  - Working groups on implementing the IPPC requirements composed of members of national and sub-national administrations, and partly with industrial associations' participation.

11. What kind of guidance has been introduced for permitting authorities and/or operators of large industrial installations that could facilitate the permitting procedure (such as helpdesks, websites, guidance documents, informational materials, application forms in accordance with the requirements of the IPPC Directive)?

All of the reporting countries implement a variety of measures. These measures included:

Guidance documents

- Application form guidance
- Brochures and similar guidance documents on BREFs and procedure
- Annual reports

Electronic and personal support

- Eleven out of twelve countries developed a national IPPC Website
- Electronic tools for application (implemented in one member state, planned in another state)
- Phone or personal consulting for permit applications

Legally binding provisions

- Ordinances in most important sectors
- One country underlined the guiding effect of general binding rules

Training

- Workshops with all stakeholders
- Seminars, training and workshops for employees

12. What strategy has your Member State / have the permitting authorities in your Member State applied for ensuring that IPPC permits are in place for all existing installations by 30 October 2007?

All countries employed at least one of the following mechanisms

- List / identification of all IPPC Installations
- Sector-wise schedule for application
- Timetables and deadlines for permit application (in almost all responding countries), in some states timetables are obligatory (whether this is true for all states is unclear)
- Implementation of corrective measures for the non-compliant operators
- Widespread information strategy
- Financial incentives for meeting the requirements earlier than the deadline
- in certain countries, operators who carry out IPPC-relevant activities have to apply for permits by 1.1.2007.

13. How effective has the strategy been so far? Please give examples of challenges and problems met.

Five out of twelve countries evaluate their strategy as very effective. Two countries are quite content with the effectiveness of their strategy. Four countries express that it is too early to evaluate the effectiveness of the chosen strategy. One country evaluates their strategy as not very effective, since permits for only 12 % of the existing installations have been issued.

Identified problems included:

- The identification of relevant plants
- Poor quality in permit applications
- One country mentions that quite a number of operators have not started to retrofit their installations
- Operators are applying for permits too late
- Problems with the assessment of BAT requirements and the interpretation of Annex I
- Heavy workload and relatively little experience in the permitting procedures

14. Is there a system which keeps the authorities informed as to how many existing IPPC installations have already been permitted and how many still have to be permitted? (Yes/No) If yes, please specify which kind of system has been introduced.

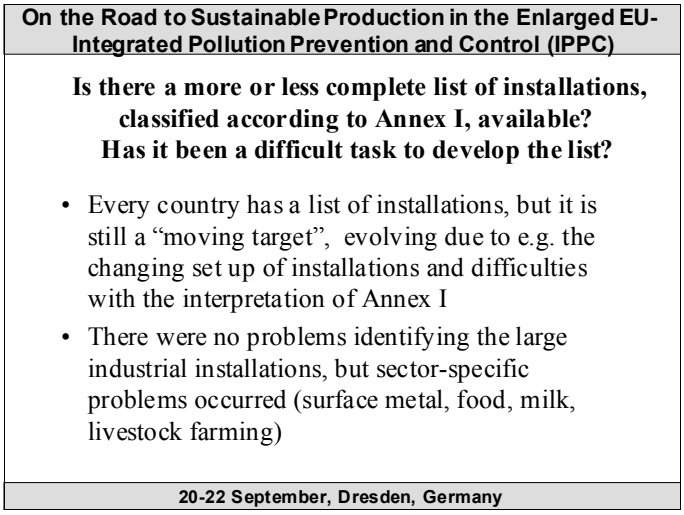
All twelve reporting countries have employed a system that keeps the authorities informed about the number of permits issued.

Ten countries report a database or register a system. In most countries a central database is kept, although in some country only regional databases exist.

Four countries mention the update of the registers: two are updated yearly, one constantly, and the fourth on a weekly basis.

One country mentions reporting to the Government as an on-going procedure.

Presentation Working Group 2



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Is the administrative capacity (manpower) sufficient for the number of permits to issue?

- Different situations in
  - different Member States
  - within the Member States in different regions
- **Some MS face manpower problems**, some are well equipped
- In some MS **a lot of applications are expected at the end of 2006/2007** and thus bottlenecks in 2007 could occur

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On the Road to Sustainable Production in the Enlarged EU- Integrated Pollution Prevention and Control (IPPC)

Experiences with permit writing and need for guidelines

- **More guidance is needed** on how to get high quality information in applications - this guidance could be established for authorities as well as for industries
- "**Best practice examples**" for permits as well as for administrative processes would be very useful
- A **pro-active approach** by both industry and the authorities can improve the process and the content of permits
- **Co-operation between permitting and other authorities, agencies and industries** is required

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On the Road to Sustainable Production in the Enlarged EU- Integrated Pollution Prevention and Control (IPPC)

What difficulties arise is using the BREFs? How could BREFs be improved?

- Using the BREFs is made difficult for authorities as well as for industry by language problems/lack of translation
- In most of the MS the actual performance of installations is monitored; over the next few years, the process to pass these data and information on to the EIPPCB (Sevilla), in order to provide input for the establishment and revision of the BREFs, should be improved

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How to improve the quality of permits

- **Permits** are issued by different authorities but they should have **similar quality and approaches**
- A lot of media-specific experts work together when issuing permits - **co-ordination of the process** is important
- The **quality** of permits and applications can be improved by **co-operation and guidances**
- **More expert support is needed for the permit writers** - e.g. support **on the national level** on how to draft a permit would be welcome

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Can the deadline in October 2007 be met?

- All MS make great efforts to meet the deadline
- But it can be expected that the 2007 deadline will not be met in all respects and for every installation
- Most permits might be issued on time, but in some MS e.g. a binding time schedule on how to reach the BAT in the years after 2007 will be integrated in the permit (Note: This must be justified on the basis of the IPPC Directive)

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What are the strategies to meet the IPPC requirements? (I)

- In most MS one or more of the following measures are used: workshops, best practise examples, a pro-active approach, dialogue with industry, co-operation and co-ordination, expert support
- MS that have problems with the deadline could implement **legally binding rules or negotiated agreements** with industry and/or use a **phased in approach** to receive applications and issue permits on time

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What are the strategies to meet the IPPC requirements? (II)

- MS should focus on application deadlines rather than on October 2007, as the procedure from the submission of the application to the issuance of the permit might be very time consuming
- It is not too late to establish these methods during the next 2 years

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Thank you for your attention!

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Synthesis Report Working Group 3

Evaluation of the Questionnaire for the Working Group 3:

Interaction of the IPPC Directive with Other European Directives

This paper proposes possible key discussion points for the working group (see section I) and gives background information for the participants (see section II). The information is based upon a questionnaire that was sent to the Member States, the candidate countries as well as Norway, Switzerland and Turkey. The questionnaire covers the issues to be discussed in Working Group 3. The answers will provide a basis for a fruitful discussion in the working group.

Working Group 3 deals with the relation between specific/sectoral directives ensuring minimum standards for certain industrial installations and the IPPC Directive prescribing a permitting system based on BAT for the same kinds of installations (using the Waste Incineration (WI) and the Large Combustion Plants (LCP) Directives and the BREFs for these sectors as illustrative examples). It treats the following **key issues**:

1. How do the Member States and the permitting authorities deal in practice with the parallel implementation of the Directives?
   [Questions 2 – 4 of the questionnaire deal with potential challenges that might result from differences in scopes, definitions, deadlines etc.]

2./3. How can the requirements of the Directives be met efficiently by the regulators and operators of installations (e.g. avoiding overlaps and inconsistencies in the permit requirements)?
   How do national permitting authorities take into account the BAT-AELs, parameters or equivalent technical measures referred to in the BREFs in the permitting process when both a specific directive and a BREF exist?
   [Questions 5 – 9 of the questionnaire deal with potential challenges that might result from differences in the environmental performance standards of the WI / LCP Directives and the IPPC Directive with its WI / LCP BREFs.]

4. Is there a positive or negative dynamic between the formulation of a minimum standard by a specific directive and the additional existence of BREFs – do specific directives speed up or impede the practical implementation of BAT-based standards in the permits according to the IPPC Directive?

   [Questions 10 – 12 of the questionnaire ask for an assessment of the parallel existence of sectoral directives in addition to the IPPC Directive on the environmental performance of industrial installations.]

I. Key Discussion Points

The answers to the questionnaire give insight into the parallel implementation of the sectoral WI and LCP Directives and the IPPC Directive (particularly the WI / LCP BREFs) by the Member States.

The respondents to the questionnaire have not reported many problems that might result from differences in scopes, definitions, deadlines and other formal/legal aspects of the directives during the parallel implementation of the IPPC and the WI / LCP Directives. Most of the problems mentioned result from differences in the required environmental performance standards of the WI / LCP Directives and the IPPC Directive / WI/LCP BREFs (see below). Therefore the interest in a discussion on these formal/legal aspects seems to be limited.

All respondents report that they at least apply the emission limit values of the WI / LCP Directives. However, it remains to be discussed whether/how the requirements of the BREFs (the BAT-AELs as well as additional provisions) are taken into account when the permitting authorities issue permits for waste incineration plants or large combustion plants or the Member States enact general binding rules.

The great majority of the respondents have expressed the view that the existence of a sectoral directive, as additional regulation to the IPPC Directive, is useful and ensures a high environmental standard for the targeted installations throughout Europe. It remains to be discussed whether guidance might be necessary for streamlining the parallel implementation and for an overall positive dynamic, as well as whether the WI / LCP Directives should be regularly amended according to the development of Best Available Techniques.

Taking account of the answers to the questionnaire, the **key discussion points** of the working group might thus be:

1. **How to deal with the differences in the environmental performance standards of the WI / LCP Directives and the IPPC Directive with its WI / LCP BREFs when implementing these directives in parallel?**
   - What are the main challenges when implementing minimum standard sectoral directives and the IPPC Directive in parallel?
   - What is the relationship between National Emission Reduction Plans, foreseen in the LCPD, and IPPC permitting conditions?
   - How can the reported problems of the parallel implementation of the WI / LCP and the IPPC Directives be overcome?
2. **How to ensure a positive dynamic between the formulation of a minimum standard by a specific directive and BAT?**
   - What is the added value of sectoral directives with respect to the IPPC Directive?
   - Is guidance needed to streamline and improve the parallel implementation of the directives and the IPPC Directive? (If so, which kind of guidance?)
   - Should the sectoral directives be adapted to new developments in BAT? (If so, which aspects and how often should the sectoral directives be amended?)

II. Synthesis of the answers to the questionnaires

Fifteen countries (eight old Member States, five new Member States, one candidate country, and one EEA country that have already transposed the IPPC Directive into national law) responded to the questions relating to Working Group 3. This section gives a synthesis of their answers.[7], [8]

7 Answers submitted by 8 September 2005 have been taken into account in this synthesis.
A complete compilation of all received answers is provided in a separate table, which is available on the internet www.ecologic-events.de/ippc-workshop. The username and the password will be sent to you by e-mail.

8 It was sometimes difficult to interpret the received answers. In these cases, it was attempted to interpret an answer in the context of the other answers received from this respondent. However, the possibility of mistakes of interpretation cannot be excluded.

1. Implementation of the IPPC Directive

1.	**How is the IPPC Directive implemented in your Member State in relation to waste incineration and large combustion plants?**	☐ By case-by-case based permits according to Article 9(4) of the IPPC Directive
		☐ By general binding rules according to Article 9(8) of the IPPC Directive
		Comments:

	Case-by-case permitting	General binding rules	Combination of case-by-case permitting and general binding rules
Number of answers	**10**	**4**	**1**

2. Potential Challenges of Parallel Implementation of the IPPC Directive and the Sectoral WI and LCP Directives

2.1 Potential challenges, which might result from differences in scopes, definitions, deadlines etc.

2.	**Have the different deadlines of the WI, LCP and IPPC Directives led to problems with the implementation of the directives?** **If so, please describe the problems and their consequences.**	**WI**	☐Yes ☐No comments:
		LCP	☐Yes ☐No comments:

	WID		LCPD	
Possible problems	**No**	**Yes**	**No**	**Yes**
Number of answers	**11**	**4**	**9**	**6**

The great majority of respondents did not encounter any problems with the different deadlines of the IPPC and WI / LCPD Directives.

The respondents who reported problems refer especially to the following issues:

WID:

- Late availability of the WI BREF as compared to the deadlines of the WID (two respondents).
- Elaborating appropriate ELVs from the WID and the WI BREF in parallel (two respondents); one respondent considered the ELVs of the WID less demanding than the provisions of the BREF.

LCPD:

- General problems with the different deadlines were mentioned from 3 respondents.
- Late availability of the LCP BREF as compared to the deadlines of the LCPD (one respondent).
- Elaborating appropriate ELVs from the LCPD and the LCP BREF in parallel (two respondents) one respondent considered the ELVs of the LCPD less demanding than the provisions of the BREF.

3. Are there problems due to different definitions of the WI, LCP and IPPC Directives? **If so, please describe the problems and their consequences?**	**WI**	**☐Yes** **☐No** **Comments:**
	LCP	**☐Yes** **☐No** **Comments:**

	WID		LCPD	
Possible problems	**No**	**Yes**	**No**	**Yes**
Number of answers	**12**	**3**	**13**	**2**

The great majority of respondents did not encounter any problems with the definitions of the IPPC and WI / LCPD Directives.
Two of the respondents, not having encountered any problems, do not detect relevant differences in the definitions of identical terms in the directives, whereas one respondent nevertheless asks for a harmonisation within these directives. In addition, one respondent finds it useful to clarify a few of the WID and LCPD definitions in themselves.

Respondents who report problems with differing definitions between the three directives refer to the following issues:

WID:

- Definition of new and existing installations (one respondent).
- Definition of co-incineration (one respondent).
- Problems with the differences in averaging periods for emission measurements (one respondent).

LCPD:

- Definition of new and existing installations (one respondent).
- Determination of capacity threshold values (one respondent).

4. Are there problems due to different coverage of the WI, LCP and IPPC Directives? **If so, please describe the problems and their consequences?**	**WI**	**☐Yes** **☐No** **Comments:**
	LCP	**☐Yes** **☐No** **Comments:**

	WID		LCPD	
Possible problems	**No**	**Yes**	**No**	**Yes**
Number of answers	**11**	**3**	**8**	**6**

The great majority of respondents did not encounter any problems due to the coverage of the IPPC and WI / LCP Directives (see below).
One of the respondents, although not reporting any problems, nevertheless asks for a harmonization of the different coverages. In addition, one respondent encountered problems with the WID coverage itself.

Respondents who report problems due to differing coverages between the three directives refer to the following issues:

WID:

- Definition of co-incineration (one respondent).
- Different requirements for the installations resulting from the different directives (one respondent).
- One respondent considers the requirements to be inappropriate in the case of hazardous waste

incinerators, which are not covered by the IPPC Directive and have less strict emission limit values than Municipal Solid Waste Incinerators covered by the IPPC Directive.

LCPD:

Compared with the WI D more Member States have reported problems with the LCP Directives but these problems are only partly due to differing coverage.

- Different requirements for the installations resulting from the different directives (one respondent).
- One respondent refers to problems resulting from the different coverages of LCPD and IPPC Directive.
- Determination of capacity threshold values (one respondent).
- Requirements for burning domestic fuel oil-shale (one respondent).
- Definiton of single unit and the consequences resulting from the definition in the LCPD (one respondent).
- One respondent refers to the problem of waste incineration in LCPs. It states that guidance is needed on which directive takes priority.

2.2 Potential challenges, which might result from differences in the required environmental performance standards of the WI / LCP Directives and the IPPC Directive with its WI / LCP BREFs

5. How does your Member State / do the permitting authorities in your Member State determine permit conditions for an installation when a BREF and a sectoral Directive co-exist?

	Parallel implementation of a sectoral directive and the corresponding BREF		
	In general, precedence for the BREF	**Only sectoral directive considered**	**Case-by-case**
Number of answers	**7**	**2**	**6**

7 of 15 respondents give priority to the requirements of the BREFs when implementing a sectoral directive in parallel with the IPPC Directive and the corresponding BREFs.
6 respondents take the BREFs into account in a case-by-case procedure.
Two respondents state that permit conditions are determined on the basis of the LCPD and WID only, or that the corresponding BREFs are only taken into consideration if the sectoral directives have no provisions for a certain aspect.

6.	**What emission limit values does your Member State / what range of emission limit values do the permitting authorities in your Member State prescribe for NOx emissions from existing small waste incineration plants (< 6 t/h) as well as for dust emissions from incineration plants?**	Parameter	Unit	Emission Limit Value or Range of emission limit values
		NOx:		
		Dust:		
		Comments:		

3 of the 15 respondents were difficult to interpret and therefore were not considered in the following synthesis.

Nox:

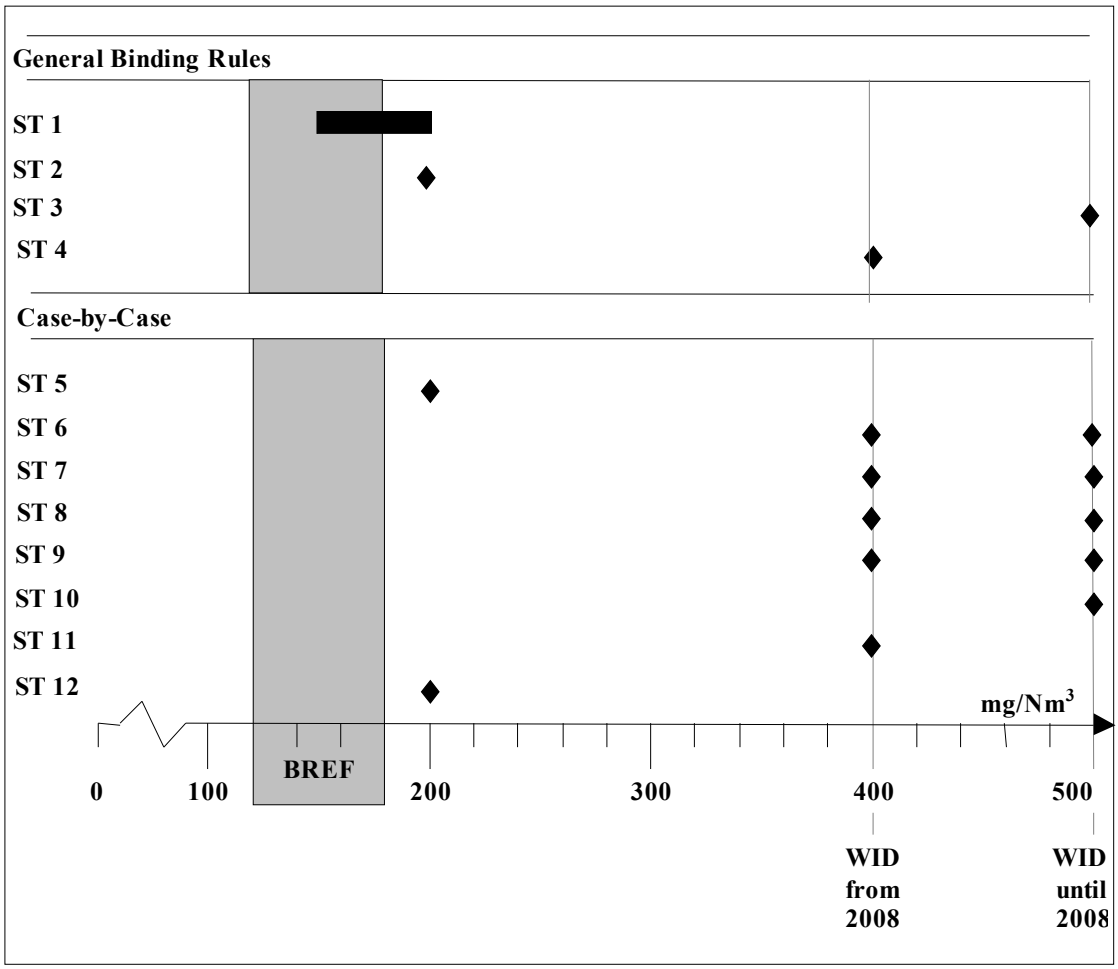

Figure 1: Applied ELVs regarding NOx emissions (daily average) for small waste incineration plants (< 6 t waste/h)

Unlike the BAT associated emission level (BAT-AEL) for NOx of the WI BREF (120-180 mg/m³), which does not foresee any differences for smaller (< 6 t waste/h) waste incineration plants, the WID allows emission limit values for those small waste incineration plants of up to 400 mg/m³ (and until 01 January 2008 of up to 500 mg/m³). However, as can be seen in Figure 1, in most cases the emission limit values (ELVs) that are imposed only consider the ELVs of the WID, and in some cases exceed the range of the BAT-AEL to such an extent that it seems to be questionable whether ELVs correspond to BAT and the BAT-AEL of the BREF.

Dust:

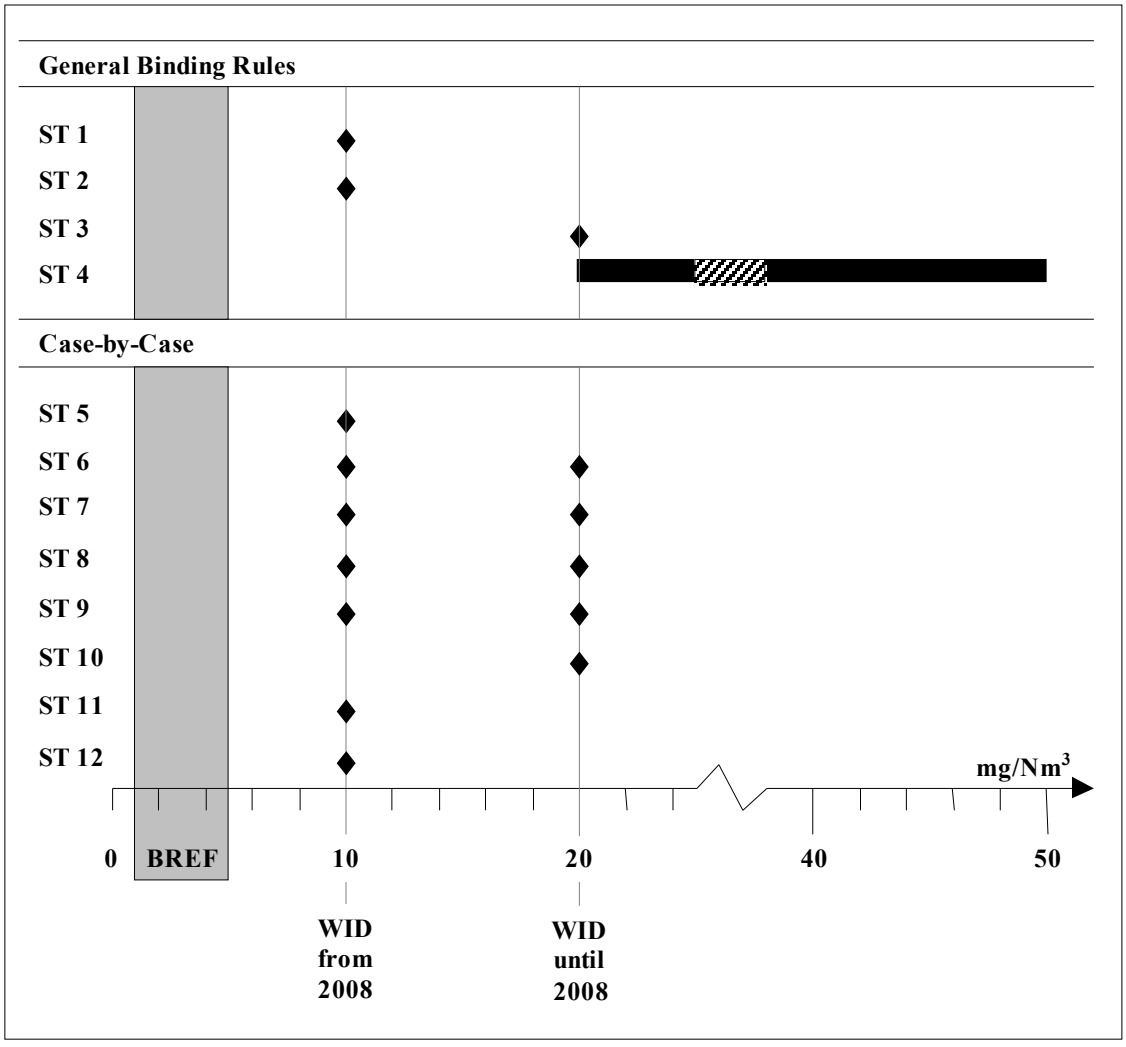

Figure 2: Applied ELVs regarding dust emissions (daily average) for existing waste incineration plants. [st=state, state 4: 20-50 mg/Nm³]

The Waste Incineration Directive prescribes emission limit values for dust of 10 mg/m³; for existing installations exemptions can be granted up to 20 mg/m³ until 1 January 2008). The BREF

contains BAT-AELs for dust of 1-5 mg/m³. As can be seen in Figure 2, until 2008 the imposed emission limit values are in most cases only based on the exemption of the WID. From 2008, the imposed ELVs might correspond with the BAT- AEL of the WI BREF in most cases.

7. If your Member State is implementing the LCP Directive by developing a national emission reduction plan for emissions of nitrogen oxides (NOx), sulphur dioxide (SO2) and dust from large combustion plants, how is this expected to affect the determination and imposition of ELVs and other IPPC permit conditions in accordance with the IPPC Directive?

5 of the 15 responses were difficult to interpret and therefore were not considered in the following synthesis.

7 respondents implement the LCPD by ELVs and have not developed a national emission reduction plan (NERP).

3 respondents have developed a national reduction plan. Most of these respondents express the difficulty to implement the requirements of the IPPC Directive in parallel with a NERP according to the LCPD.

8. Have any problems arisen in the field of co-incineration of waste that are due to the parallel application of different Directives? (IPPC /WI/LCPD)

If so please describe the problems experienced and their consequences.

	Problems in the field of co-incineration of waste		
	No	**Yes**	**No answer**
Number of answers	**7**	**5**	**2**

The majority of respondents did not encounter any problems in the field of co-incineration of waste due to the parallel application of different Directives.
One respondent only mentions that it has no general procedure and proceeds on a case-by-case basis; this answer is not contained in the above table.

The respondents who report problems refer especially to the following issues:

- Laborious situation for the permitting authority (one respondent).
- Determination of ELVs in the case of co-incineration (one respondent).
- Different requirements for incineration of animal biomass (co-incineration, WID) and vegetal biomass (LCPD) (one respondent).

- Using co-incineration only in a part of the operating time
- Multiple incineration units, only some of which use waste as fuel, may exist at a single installation.

9.	**How does your Member State / do permitting authorities go beyond the direct requirements in terms of emission limit values (ELVs) in the WI and LCP Directives and implement the additional requirements of the IPPC Directive (e.g. on energy efficiency)?**	**WID**	
		LCP	

		How does your Member State / do permitting authorities go beyond the direct requirements in terms of emission limit values (ELVs) of the sectoral directives?	
		Using BREFs, stricter ELVs, additional requirements, etc.	**Case-by-case**
Number of answers	**WID**	**8**	**7**
	LCPD	**8**	**6**

No significant differences are reported for the WID and LCPD.

Most (8 of 15 [WID] and 8 of 14 [LCPD]) respondents assess possibly stricter or additional requirements resulting from the IPPC Directive and the BREFs and implement these requirements by permit conditions or general binding rules. Different examples of such additional measures are given (e.g. stricter ELVs for certain pollutants, stricter provisions for co-incineration compared to the WID, provisions for energy efficiency, etc.).
One respondent explicitly refers to the prefaces of the WI / LCPD BREFs.

7 respondents don't have general procedures and consider possibly stricter measures on a case-by-case-basis.
One respondent states that according to its legislation a permit must not exceed the ELVs of the sectoral directives and must take into account the BREFs in a case-by-case procedure.

3. Ensuring an effective implementation of the Directives at the European Level Assessment of the parallel existence of sectoral directives in addition to the IPPC Directive on the environmental performance of industrial installations

10.	**Are sectoral directives useful as additional regulations to the IPPC Directive, prescribing minimum requirements for certain types of installations?**	☐Yes ☐No
	If so, is there – for example in the case of the WI and LCP Directives – a need for ongoing amendments of the sectoral directives in order to narrow the gaps between their requirements and those applied under the IPPC Directive?	☐Yes If so, please specify the need for amendments. WI D LCP D ☐No

Some responses concerning the need for ongoing amendments were not clear. Question 12 was used to aid interpretation of the answers.

	Are sectoral directives useful?		**Is there a need for ongoing amendments of the sectoral directives?**		
				WID	**LCPD**
Yes	**14**	**no**	**7**		
		yes	**6**	**5**	**5**
		n. a.	**1**		
No	**1**				

All but one respondent consider both sectoral directives useful as additional regulations to the IPPC Directive, prescribing minimum requirements for certain types of installations.

One respondent finds additional sectoral directives superfluous.

14 respondents consider both sectoral directives useful. 7 do not want ongoing amendments for the directives. 6 wish ongoing amendments to the Directives, 5 want changes for the WID, 5 for the LCPD and 4 for both directives.
The main proposals for such amendments are summarised in question 12.

11. Do sectoral directives, in practice, hinder the implementation of the best available techniques - rather than ensure a high environmental standard - or is there a positive dynamic?	☐Rather hinders implementation of BAT ☐Rather ensures a high environmental standard comments:

	Are sectoral directives useful? (Question 10)	**Do sectoral directives rather ensure or hinder a high environmental standard?**		
		Ensure	**Uncertain**	**Hinder**
Yes	**14**	**9**	**2**	**3**
No	**1**	**-**	**-**	**1**

All but one respondent consider both sectoral directives useful as additional regulations to the IPPC Directive, prescribing minimum requirements for certain types of installations.

9 of the 14 respondents state that the sectoral directives rather ensure and promote a high environmental standard. Two respondents are uncertain as to whether the sectoral directives rather ensure or hinder a high environmental standard, 4 respondents including the respondent that does not consider sectoral directives useful consider the sectoral directives rather to hinder a high environmental standard.

The main aspects of sceptical or negative assessments of the effects of the sectoral directives are:

- The larger the difference between BAT and the minimum requirements of the sectoral directives, the less effective are the sectoral directives to support implementation of BAT (one respondent).
- Another respondent considers BAT/BREFs to be weak because they are not legally binding.
- Legal instability for industry (one respondent).

12. Would further measures at the European level, such as guidance or the amendment of legislation, be useful to facilitate an efficient and effective implementation of the WI, LCP and IPPC Directive?

Please specify which measures.

For some responses the proposed measures at the European level to facilitate an efficient and effective implementation of the WI, LCP and IPPC Directive were not clear. Question 10 was used to aid interpretation of the answers.

	Are sectoral directives useful? (Question 10)		**Would further measures at the European level be useful?**	**Which measures?**		
				Amend-ments of sectoral directives	**Guidance**	**Both**
Yes	**14**	**no**	**2**			
		yes	**11**	**2**	**5**	**4**
		n. a.	**1**			
No	**1**	**yes**	**1**	**repeal**	**-**	**1**

All but one respondent consider both sectoral directives useful as additional regulations to the IPPC Directive, prescribing minimum requirements for certain types of installations.

11 of the 14 respondents request further measures at the European level to facilitate an efficient and effective implementation of the WI, LCP and IPPC Directives:

- 9 support EU guidance, especially on how to implement the sectoral directives in parallel with the IPPC Directive.
- 7 request formal amendments of the sectoral directives:
  - * Updating the sectoral directives, taking into account the new BREFs.
  - * Clarification of the relationship and priorities between sectoral and IPPC Directives.
  - * With regard to WID: Stricter ELVs for some pollutants for incinderation and co-incineration.

continuous measurement of Hg.

Provisions for energy use.

Recital 13 should become an article.

* With regard to LCPD: According to art. 4 para 7.

Stricter ELVs, especially for NOx emissions for existing installations.

On the other hand, one respondent requested that the NRP be allowed to override BAT requirements for each installation.

Provisions for energy use.

Provisions to limit heavy metal emissions.

The country that considered the sectoral directive not to be useful requested a repeal of the sectoral directives; expecting that political considerations may prevent this, it considers EU guidance to be helpful.

Presentation Working Group 3

On the Road to Sustainable Production in the Enlarged EU-
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What are the positive and negative aspects of the IPPC Directive?

The participants brought up the point on the balance between harmonisation and flexibility in the IPPC Directive.

It was said that the IPPC Directive, although a flexible instrument, provides itself for a certain degree of harmonisation.

However, the question was raised whether the IPPC Directive as it is provides for a good balance between harmonisation and flexibility.

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What are the positive and negative aspects of the IPPC Directive?

On the one hand, it was said that the flexibility had to be maintained, because it allows

- swift adaptation to new developments
- as well as the taking into account of local conditions.

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On the Road to Sustainable Production in the Enlarged EU-
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What are the positive and negative aspects of the IPPC Directive?

On the other hand, some participants criticised theflexiblity because it could lead to

- the distortion of competition within the EU
- and abusive implementation of the IPPC Directive.

For this reason, it was maintained that this flexibility had to be compensated by measures which ensure that

- the IPPC Directive is implemented in a transparent manner
- as well as stricter requirements for reporting and compliance control.

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What is the added value of the sectoral directives in comparison to the IPPC Directive?
What are disbenefits of the parallel existence of the sectoral directives and the IPPC Directive?

- Benefits: Safety net in terms of minimum standards, transparency, legal security for operators and constructors, level playing field, it means less interpretation effort for competent authorities
- Disbenefits: Burden for both authorities and industry because of possible overlap

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On the Road to Sustainable Production in the Enlarged EU-
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Main challenges of the parallel implementation of the WI/LCP and IPPC Directive: formal aspects

Most participants are not facing challenges with regard to the concurrent implementation of the sectoral directives and the IPPC directive with regard to their formal requirements (definitions, scopes, deadlines), but some do (for example with regard to the definition of the term combustion plant in the LCPD or the term technical unit in the WID).

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Integrated Pollution Prevention and Control (IPPC)

Relationship of National Emission Reduction Plan and IPPC permitting conditions

Few Member States made use of the possibility to adopt national emission reduction plans. National emission reduction plans, while allowing exemptions from the ELVs of the LCPD, do not exempt Member States from complying with the requirements of the IPPC Directive.

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Is guidance neededto streamline and improve theparallel implementationof the directives and the IPPC Directive? If so, what kind of guidance?

Guidance was welcomed by most participants. Some guidance is already available (BREFs, CAFE) and additional guidance is about to be elaborated.

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Is guidance neededto streamline and improve theparallel implementationof the directives and the IPPC Directive? If so, what kind of guidance?

What guidance exists?

– Clarification of the relationship between the IPPC Directive and thesectoral directives in the BREF interface.

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Is guidance needed to streamline and improve the parallel implementation of the directives and the IPPC Directive?
If so, what kind of guidance ?

What kind of guidance is needed?

- Clarification of open issues: How to implement energy efficiency requirements of the IPPC Directive? How to handle indirect emissions? How to deal with waste treatment?
- Case studies that demonstrate the interlinkages between the directives

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How to ensure a positive dynamic between the IPPC directive and sectoral directives?

Possible Scenarios

- Suggestion for a future structure:
  - Maintain the IPPC Directive and sectoral directives and amend the sectoral directives
  - Maintain the IPPC Directive only, repeal the sectoral directives, and replace them by annexes to the IPPC Directive
  - Repeal of the IPPC Directive, additional sectoral directives
- Ideas for procedure:
  - Co-decision procedure
  - Comitology, technical adaptation committee

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Thank you for your attention.

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Synthesis Report Working Group 4

Evaluation of the Questionnaire for the Working Group 4:

How to Further Promote a Good Application of the IPPC Directive

This paper proposes key discussion points for the working group 4 (see section I) and gives background information for the participants (see section II). The information is based upon the answers to a questionnaire that was sent to the Member States, the candidate countries as well as Norway, Switzerland and Turkey. The questionnaire covers the issues to be discussed in the working group 4 (please see workshop programme). The answers will provide a basis for a fruitful discussion in the working group.

The key issues of the working group 4 are the good application of the IPPC Directive

1. on a National Level (questions 2-4 of the questionnaire) and
2. on the European Level (questions 5-8 of the questionnaire).

I. Key Discussion Points

The answers to the questions regarding the implementation/good application of the IPPC Directive on a national level give insight into how the Member States assist their permitting authorities in implementing the IPPC Directive, how the Member States co-operate on this issue with industrial organisations and what examples of best practice the Member States have.

The answers to the questions regarding the implementation of the IPPC Directive on the European level convey the views of the Member States on an efficient use of BREFs, their expectations as regards the review process of the BREFs and their need for further guidance on the implementation of the IPPC Directive.

Taking account of the answers to the questionnaire the key discussion points of the working group may include:

National level:

- Which kind of support for permitting authorities regarding the implementation of the IPPC Directive has proven to be successful?
- How to ensure a fruitful cooperation with industry in the implementation of the IPPC Directive?

European level:

- What would the ideal BREF look like and how could we get there?
- How could an efficient organisation of the review process for the BREFs ensure the timely provision of robust data?
- Is there a need for further guidance in the implementation of the IPPC Directive?

II. Synthesis of the answers to the questionnaires

This section provides a synthesis of the answers received from 11 Member States (6 old Member States, 5 new Member States) and a candidate country that has already transposed the IPPC Directive into national law.[9] [10]. Further information on the respondents is given in the following table:

	Less than 1,000 IPPC Installations	More than 1,000 IPPC Installations
Old Member State	**X X X**	**X X X**
New Member State	**X X**	**X X X**
Candidate Country	**X**	

9 Due to strict time limitations, only answers submitted till 2 September 2005 have been taken into account in this synthesis. However, all received answers are compiled in a separate table. A complete compilation of all received answers is provided in a separate table, which is available on the internet www.ecologic-events.de/ippc-workshop . The username and the password were sent to you by e-mail.

10 It was sometimes difficult to interpret the received answers. In these cases, it was attempted to interpret an answer in the context of the other answers received from this respondent. However, the possibility of mistakes of interpretation cannot be excluded.

1. Implementation of the IPPC Directive by Article 9(4) or 9(8)

In order to achieve an understanding of the answers to the following questions (particularly regarding guidance needed by the permitting authorities), Question 1 of the questionnaire addresses how the Member States have chosen to implement the IPPC Directive; by case-by-case based permits according to Article 9(4) or by general binding rules according to Article 9(8) of the IPPC Directive.

1.	**How are BAT-based ELVs implemented in your Member State?**	☐ By case-by-case based permits according to Article 9(4) of the IPPC Directive
		☐ By general binding rules according to Article 9(8) of the IPPC Directive
		Comments:

	Case-by-case permitting	**General binding rules**	**Combination of case-by-case permitting and general binding rules[11]**
Number of answers	**9**	**1**	**2**

2. Good Application of the IPPC Directive on a National Level

2.1.Support of the Permitting Authorities in the Implementation of the IPPC Directive

2. How does your Member State support the permitting authorities in the implementation of the IPPC Directive (e.g. did your Member State provide information or sample permits for certain types of installations, organise workshops, develop national guidelines, set up special units in order to provide guidance to local permitting authorities regarding IPPC-permitting and use of BREFs)?

A great variety of methods are employed by the reporting countries to support permitting authorities in the implementation of the IPPC Directive. In the following, the addressed approaches are listed under three main categories.

11 E.g. by fixing minimum requirements (e.g. ELVs) in general binding rules for certain types of industrial installations parallel to the requirements on the permitting authorities to base all permits on BAT.

Information Exchange and Training

- Regular meetings between permitting authorities in order to share information and experiences
- Workshops and seminars with relevant stakeholders (in particular permitting authorities and industry) regarding the BREFs, the IPPC Directive and IPPC permitting
- Training for permitting authorities (permit writers and inspectors) including e.g. templates for integrated permits (sample permits) and manuals (guidance documents) for the permitting procedure and use of BREFs[12]

Guidance

- Compilation of guidance documents (guidance notes) regarding BAT for all or certain types of industrial installations
- Development of guidance documents for operators on how to prepare an application
- Development of general binding rules regarding BAT standards (in cooperation with stakeholders)

Support

- Development of internet platforms providing the permitting authorities and other interested stakeholders with important information regarding BAT and the implementation of the IPPC Directive (e.g. background information, national and European legislation, guidance notes, FAQs, sample permits, BREFs, translation of BREFs, relevant links, etc.)
- Development of electronic information systems and software for integrated permits (including all environmental aspects that can be part of the permit, forming a kind of ”list of contents” assisting the permit writer to prepare tailor-made permits for all installations).
- Development and distribution of information materials (e.g. brochures) to industry and publishing articles on IPPC and integrated permits in industrial sector-specific papers and magazines.
- Technical support by national technical working groups (TWG)
- Development of national supporting agencies or advisory boards for IPPC permitting
- Translation of (parts of) BREFs

12 For some new Member States the training was carried out in international cooperation with old Member States.

2.2 Cooperation with Industrial Associations in the Development of Permitting Procedures

3. Did your Member State / the permitting authorities in your Member State cooperate with industrial associations in order to find ways to facilitate and harmonise the permitting procedures for the various types of installations efficiently? If so, please specify how?

All respondents report that there has been co-operation between the government and industrial associations regarding the implementation of the IPPC Directive. The particular forms of this co-operation varied as follows:

Training and Information

- Information exchange in the form of consultations, seminars, e-mails and workshops
- Information distribution to the operators by the industrial associations
- Invitation of industrial associations for training regarding IPPC, IPPC permitting and the use of BREFs

Consultation

- Consultation and involvement of industrial associations in the preparation of legal acts and the determination of BAT standards in general binding rules.
- Consultation in the development of permitting procedures and electronic tools for permit applications
- Involvement in the development of national BAT guidance documents (guidance notes)

Further Forms of Cooperation with Industry

- Development of voluntary agreements
- Individual consultations between permitting authorities and the operators on a case-by-case basis
- Development of organisational principles such as ”one person in the permitting authority is responsible for one industrial installation.”

2.3 Good Practice for Efficient Implementation of the IPPC Directive

4. Do you have examples of "good practice" in your Member State in order to achieve an efficient implementation of the IPPC Directive?

Differing interpretations of the question led to divergent responses. Some countries report on whether or not good practice examples are being compiled and disseminated; other respondents give specific examples of good practices that were occurring in their country.

The examples comprise:

Support and Guidance

- Development of sectoral guidance documents (guidance notes)
- Development of electronic tools for supporting permit applications, permitting and monitoring
- Dissemination of information regarding IPPC, BAT and integrated permitting by the preparation of guidelines and application templates
- Development of internet platforms with relevant information for permitting authorities, operators and other relevant stakeholders
- Development of general binding rules
- Translation of (parts of) BREFs

Consultation/Establishment of Advisory Boards

- Coordinating meetings regarding procedural questions between technical experts in the various fields (air, water, waste etc.)
- Meetings between technical experts and lawyers
- Development of special "Permit Councils" with representatives from regional environmental boards where relevant questions regarding IPPC permit drafts are discussed
- Legally prescribed consultation between permitting authorities (regional environmental inspectorates) and other expert authorities
- Collaboration between Federal and Federal States' authorities (in general: local, regional and state authorities).

3. Good Application of the IPPC Directive on the European Level

3.1 Efficient Use of BREFs

5. Efficient use of BREFs: Do the general structure and/or content of the BREFs need to be revised in order to improve their manageability and usability? If so, please specify how (e.g. by developing a ”checklist for BAT”, using decision trees, translation of (parts of) the BREFs, etc.).

With the exception of one Member State, who reports that the structure of the BREF is good as it is, but that particularly the active participation and the supply of data should be improved, all other respondents report that the structure and/or content of the BREF should be improved. The suggestions include:

Structure

- All BAT conclusions should be included in the executive summary
- Extended executive summary (allowing more than the currently maximum 10 pages)
- Development of a ”checklist for BAT”
- Clear structure of the BREFs is needed

Content

- BAT conclusions should be given as BAT associated emission levels (BAT AELs) in narrow ranges and more BAT associated emission levels are needed in most BREFs
- Amendment of the monitoring requirements connected to the BAT AELs
- The content of the BREFs should focus on pollution prevention and control
- More detailed information on aspects such as resource efficiency, energy efficiency, use of hazardous materials and water use should be included in the BREFs
- Inclusion of more examples of existing installations that use a certain BAT
- Clear references to other BREFs in the BREFs

Organisation

- Full (or partial)[13] translation of BREFs into all official EU languages
- Development of a database containing all BREFs and providing a search function across all BREFs

13 Especially important sections to translate are glossaries and chapter 5 (BAT conclusions).

- Promoting the completion of ”additional information” (e.g. information of national use of BREFs) on the EIPPCB web page
- Development of an Internet forum (”chat room”) where competent authorities can exchange information
- Clarification of the scope of the BREFs regarding Annex I of the IPPC Directive

3.2 Organisation of the Review Process for the First Round of BREFs

6. How could the review process for the first round of BREFs be organised efficiently (e.g. with regard to pre-assessment of review areas before kick-off, commenting periods, number of drafts, coordinated data collection, etc.)?

The answers regarding how the review process could be organised efficiently related to the preparatory work prior to the Kick Off on the one hand and to the procedure during the review on the other:

Preparatory Work Prior to the Kick Off

- Pre-assessment of review areas for identifying the focus of the review
- Close cooperation with the users of the BREFs (e.g. in the form of a questionnaire evaluating permitting authorities’ and operators’ needs)
- Long-term planning of the working programme (for the review)
- Support of the data collection for the review process in the Member States by co-ordinating their exchange on planned research activities (especially according to the "conclusions and recommendations for further work") directly after finalising a BREF
- Evaluation of present challenges regarding the use of BREFs before Kick Off

Review Procedure

- Active involvement of all relevant stakeholders
- The review process must be flexible allowing adjustment depending on the review necessity (e.g. if complete processes should be included in the BREF)
- The changes in the BREFs resulting from review should be included in the old chapters
- The changes in the BREFs should be included in an annex to the original BREF

- Old discussions should not be re-opened (start from present emission and consumption data)
- It should be indicated in the BREF which parts have been reviewed and what kind of revision has been carried out (correction of typing errors, inclusion of new data, modification of BAT AELs etc.)
- Strict time limits for commenting on drafts and providing data
- Short review periods
- Timely provision of robust new information

The review procedure should follow the procedure for the first round of BREFs

3.3 Need for Flexibility in the Review Process

7. Is there a need for flexibility in the review process of the BREFs due to the varying quality and scope of the first round of BREFs? If so, please specifiy in which sense.

The answer is unanimously yes. The suggestions include:

- The restructuring or splitting up of some BREFs covering different processes (e.g. chemical industry and Non-ferrous metals) should be considered
- Flexibility is especially needed in cases where the scope has changed or where quantitative ELV AELs are missing or BAT not clearly defined.
- It should be possible to adjust the timescale of the review process and the number of drafts depending on the need for review
- The BREFs with less ambiguous BAT standards and for sectors that have undergone major developments since the adoption of the BREF should be prioritised in the review process
- The information exchange process should be adjusted according to the varying amounts of robust new information available

3.4 Need for Further Guidance on the Implementation of the IPPC Directive

8. Is there a need for further guidance in the implementation of the IPPC Directive on a European level? If so, please specify in which specific cases this assistance is required and how it could be organised.

All Member States see a need for further guidance in the implementation of the IPPC Directive on the European level. Several of the Member States refer to the discussions in the IEG on this issue. Guidance is desired in the following contexts:

Definitions:

- Explanation of production capacity thresholds and definitions in Annex I of the IPPC Directive, such as:
  - Explanation of production capacity of various activities in Annex I (for example, a comparison of the production capacity of the installation and the projected capacity of the installation)
  - Common understanding of the term ”chemical processing” in the paragraph below Annex I 4. Chemical industry
  - Thresholds related to the term ”industrial scale” in the paragraph below Annex I 4. Chemical industry. How to set these thresholds?
  - Exact explanation of disposal or recycling of animal carcasses in 6.5.
- Definition of ”installation”
- Definition of ”technical connection”
- Definition of ”capacity”

Other guidance

Elaboration of FAQ papers for the interpretation of definitions, thresholds (Annex I) and other controversial subjects (e.g. how to derive ELVs from a range of BAT associated emission values, how to implement requirements from BREFs which are not aimed at ELVs (e.g. constructional and operational BAT requirements).

Presentation Working Group 4

On the Road to Sustainable Production in the Enlarged EU-Integrated Pollution Prevention and Control (IPPC)

Working Group 4

How to Further Promote a Good Application of the IPPC Directive

Chairperson: Andrius Kairys

Rapporteur: Philippe Lucas

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On the Road to Sustainable Production in the Enlarged EU-Integrated Pollution Prevention and Control (IPPC)

Key Issues Working Group 4

The good application of the IPPC Directive

- on a National Level
- on the European Level

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On the Road to Sustainable Production in the Enlarged EU-Integrated Pollution Prevention and Control (IPPC)

Session I

Good Application of the IPPC Directive on a National Level

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On the Road to Sustainable Production in the Enlarged EU- Integrated Pollution Prevention and Control (IPPC)

Key Discussion Points

- Which kind of support for permitting authorities regarding the implementationof the IPPC Directive has proven to be successful?
- How to ensure a fruitful co-operation with industry in the implementation of the IPPC Directive?

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Support for Permitting Authorities **(1)**

Which kind of support for permitting authorities regarding the implementation of the IPPC Directive has proven to be successful?

•Translation of BREFs

•National legal binding rules

•Sectoral guidances and guidelines based on BAT

•Training and information exchange (seminars, workshops, Internet, etc.)

•Guidance how to understand the BREFs and BAT inside

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Support for Permitting Authorities **(2)**

Which kind of support for permitting authorities regarding the implementation of the IPPC Directive has proven to be successful ?

•Template (checklist, electronic)for permit writing

•Chapter 4 and 5 summary (checklist) for determining BAT

•Information Center, Internetplatform, Search Engine

•Independent technical expertise (third parties)

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Co-operation with Industry **(3)**

How to ensure a fruitful co-operation with industry in the implementation of the IPPC Directive?

- National working groups (LocalTWGs)
- Pre-permitting discussions
- Consultation of industry (national, regional)
- Template for the application (permit request)
- Voluntary agreements taking into account legal requirements
- Simplifying permitting procedures

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Session II

Good Application of the IPPC Directive on the European Level

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On the Road to Sustainable Production in the Enlarged EU- Integrated Pollution Prevention and Control (IPPC)

Key Discussion Points

- What would the ideal BREF look like and how could we get there?
- How could an efficient organisation of the review process for the BREFs ensure the timely provision of robust data?
- Is there a need for further guidancein the implementation of the IPPC Directive?
- Other Issues Relevant to Successful IPPC Implementation

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The Ideal BREF

What would the ideal BREF look like and how could we get there?

- Improvement of chapter 5 (checklist)
- Executive Summary : more than 10 pages
- Cross references between chapters 4 and 5 (in both directions)
- Executive Summary should include BATAEL
- Clarification and clear cross references between horizontal and sectoral BREFs

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BREF Review

How could an efficient organisation of the review process for the BREFs ensure the timely provision of robust data ?

- Review should enable tracking changes (no consensus for an annex or integrated changes)
- Focusing the review on the substantial new issues (old discussion should not be reopened)
- Need for a clear procedure guidance for the review of BREF (as BREF outline and guide, IEF decision)

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IPPC Guidance

Is there a need for further guidance in the implementation of the IPPC Directive?

- IEG working group exists
- Official position needed (more than guidance) for some issues (eg. capacity)
- Need for exchange of information on practices
- Consistency of definitions between directives (streamlining)

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Others

Other Issues Relevant to Successful IPPC Implementation?

- Development of an active information exchange among competent authorities (chat-room, additional information on IPPC website...)
- Explore the linkage between medial directives (such as WFD, Air Quality Directive, National Emission Ceilings, Habitat Directive) and the IPPC directive

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Plenary Session

Plenary Session

Introduction Plenary Session

The following chapter contains the welcome speeches, abstracts and (graphic) presentations of the different contributions to the plenary session. The reports from the working groups that the rapporteurs gave in the plenary session are to be found in the chapter workshop ("presentation working group").

The conclusions of the different sessions of the plenary session and the conference as a whole can be found in the summary of the conference that is included in these conference proceedings.

Welcome and Introduction

Opening Speech by Ms. Margareta Wolf

Member of the Federal Parliament, Parliamentary State Secretary at the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)

delivered by Dr. Norbert Salomon
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)

Check against delivery

Minister Tillich,

Director Delbeke,

Ladies and Gentlemen,

I would like to welcome all of you to the Dresden conference "On the Road to Sustainable Production in the Enlarged EU – Integrated Pollution Prevention and Control (IPPC)".

- I would like to welcome today's host, the Minister for the Environment and Agriculture in the Free State of Saxony, Mr. Tillich.
  Choosing Dresden as a conference venue is a tribute to the enlargement of the European Union from 15 to 25 Member States. The conference is taking place under the aegis of the Minister President of the Free State of Saxony, Professor Milbradt – not least due to the special relationship between Saxony and the new EU Member States.
  I would also like to extend my thanks to the federal state of Saxony for supporting the preparation of the conference and for providing funds for the beautiful side events.
- A special word of welcome goes to the representatives of the European Commission, particularly to Director Delbeke and the colleagues from the European IPPC Office in Sevilla. The European Commission has made a substantial contribution to the conference by providing funds and programme components.
- Furthermore, I would like to welcome the representatives of the Hungarian Ministry for the Environment.
  This conference has turned special attention to the situation of the new EU member states and the candidate countries in their efforts to implement the IPPC Directive. We are therefore happy that Hungary volunteered to assist us in the preparation of the conference.
- Last but not least I would like to thank the organizing team of Ecologic for having done an excellent job in setting up this conference.
- Finally, my thanks go to the speakers and moderators for participating and contributing to the conference. They are instrumental for giving impetus to a vivid and exciting debate.

This is the second international conference Germany is hosting on the Directive on Integrated Pollution Prevention and Control (IPPC Directive). In Stuttgart in the year 2000 the focus was on the Sevilla Process, which at the time was still in its infancy, concentrating on reference documents on best available technologies (BREFs). At that conference the Federal Ministry for the Environment offered to organize a follow-up conference in approximately four year's time.

Therefore, I am very happy that the European Commission has taken up this offer and that now we can celebrate this conference in Dresden.

Today's conference will focus on assessing the implementation status of the IPPC Directive in the EU member states and its future development. The conference is taking place at the right point in time:

- The enlargement of the European Union from 15 to 25 members poses great challenges to the new member states, but also to the remaining candidate countries, especially with a view to preventive environmental protection in industrial plants. At the same time, this provides enormous opportunities through an upgrading of the existing installations.
- The first round of discussions on the elaboration of BAT reference documents is soon coming to an end, and the reviewing and updating process of the first BREFs in order to adapt them to latest developments in best available technologies has already started.
- The implementation deadline ending on 30 October 2007, when especially the so-called old plants will have to employ BATs, is drawing nearer.
- Finally a debate has started on how to make the IPPC Directive even more effective.

Therefore, we are right in the midst of a very exciting implementation phase for the IPPC Directive. That is why an open discourse between all stakeholders, the EU member states, industry, environmental associations and the general public on what has been achieved so far is so important. The conference will provide you with ample opportunities to do so.

Over the past years we have achieved clear progress in the European Union in improving the environmental situation. Many EU member states – including Germany – have acquired a high technological standard. However, this must not allow us to rest on our laurels, as the pollutant emissions from industrial plants continue to be much too high. This becomes apparent, for instance, when looking at the difficulties encountered in the effort to meet the requirements of individual environmental quality standards as stipulated in various EU directives or when mass pollutants exceed critical levels and critical loads.

Let me be clear: An ecologically intact environment that is pleasant to live in is not a privilege but a human right.

All three pillars of sustainability, which is the guiding motive of this conference, i.e. economy, ecology and social cohesion, are indispensable for a sustainable Europe in the 21st century. Living up to sustainability claims requires also making industrial production in Europe sustainable. In addition, environmental protection and economic necessities require a Europe-wide

harmonisation of environmental protection standards for industrial plants at a high level by applying the best available technologies. Industrial plants must adapt to dynamic changes in best available technologies. These are the core objectives of the IPPC Directive that pivots around the guiding principle of sustainable production.

The ensuing modernisation of the existing industrial facilities in Europe entails at the same time an important innovative thrust. It will have positive effects on the competitiveness of German industry and also create and secure employment.

It is not only within the European Union but also at an international scale that the EU advocates more effective environmental protection. The IPPC Directive is of special significance also in this context. The BREFs have somewhat become "the voice of Europe on best available technologies". Even outside Europe they are highly regarded, as they reflect state-of-the-art knowledge on preventive environmental protection in industrial plants. This will be unmistakably highlighted at this conference in the contributions from the representative of the World Bank and the representative of the Finnish Environment Institute.

The European Commission and we as member states should make use of the unique character of the BREFs also in other fields of legislation, such as the future development of international climate policy.

In order to continue the sustainable conversion of European industry and to redeem the human right to a clean environment we must first tackle major tasks:

- The most important challenge of the near future is to meet the implementation deadline of 30 October 2007, which marks the date by when old installations in particular must apply the best available technologies.
- We need a consistent and ambitious implementation of the IPPC Directive and the BREFs in all EU member states.
- A proper monitoring of the correct implementation of the IPPC Directive can be carried out only if comprehensible and comparable data on the environmental standards of industrial facilities in Europe are made available.
- The further implementation of the IPPC Directive must be accompanied by an ambitious revision of the BREFs.

A decisive precondition for success is that all stakeholders, i.e. all member states, industry, environmental and consumer associations, science and the general public, continue with their committed and constructive work.

On this note I wish you inspiring discussions and hope that the conference will give significant momentum to the implementation and continued development of the IPPC Directive and thus to preventive environmental protection in industrial plants.

Opening Speech by Stanislaw Tillich

State Minister of Environment and Agriculture

"The spoken word is valid."

Ladies and Gentlemen,

I would like to welcome you in Dresden on behalf of the Saxon Government. The last conference took place in Stuttgart and so, from the linguistic point of view, you have gone from one extreme to another, because the Saxon dialect is considered a foreign language by most other Germans but it is in good keeping with this international conference.

I'm very glad Saxony has been chosen the host of this conference. It is a good location to discuss about sustainable production. Why?

The Saxons have always been innovative and creative. Patents of convenience goods, be it the thermos flask or the bath tub which were the doing of resourceful Saxons, or the invention of the rotary washing machine and the world's first CFC-free fridges. The latter especially is an essential contribution to reduce environmental burdens, and thus a classic example for the topic of this conference.

The Prague poet and historian, Karl Herloßsohn described the Saxon people as 'active and industrious by their nature'. And still about 150 years later this is exactly in line with when it settled in Saxony and emphasized "It's all about people".

Industrial production in Saxony is steeped in tradition which we have made use of. The Free State of Saxony has today the largest economic potential among the new Laender and is even considered the most dynamic among the German Laender. Saxony is a Land of cars, chip industry, biotechnology and machine building. This is something we are proud of.

In keeping with the economic development the situation of environment has improved, too. Air pollution has drastically decreased since the early 90ies. Between 1990 and 2002 sulphur dioxide emissions dropped by approx. 98% and that of dust by approx. 95% C.

One reason for that is that many industrial plants that were operated without adequate exhaust air cleaning systems and thus emitting huge amounts of pollutants, were shut down.On the other hand many new plants were built that have been provided with state-of-the-art emission control equipment.

In the Free State of Saxony we have now coal-fired power stations that are world-class not only with respect to their electrical efficiency but also when it comes to flue-gas cleaning.

Dresden has one of Germany's e first mechanical and biological waste treatment plants which is equipped with a thermal-catalytic exhaust air purification plant.

But it is not only the air emissions that have been decreased but also the wastewater situation of industrial plants has turned to the better in Saxony. The use of state-of-the-air wastewater treatment plants and the use of low-wastewater and wastewater-free technologies has tremendously improved the condition of running waters. Between 1991 and 2000 the share of strongly to excessively contaminated main running waters dropped from initially 50 % to practically zero.

All this shows that environmental protection need not be in the way of economic progress. It is essential to avoid industrial emissions. But nevertheless we should face reality. To be really able to integrate environmental protection into production, it will need a dialogue with the industry. Environmental standards are always considered no competitive disadvantage when the companies have their own interest in environmental protection.

It is no secret that environmental protection can be source of profit. Filters, soil and air cleaning systems made in Germany are moneyspinners today. Environmental protection may also become an important drive behind expansion and innovation on the way to an ecologically compatible economic growth and, last but not least, a sustainable development.

Environmental standards like the IPPC Directive are right. The degree of their acceptance, however, depends on how well we are able to involve the companies in the processes of preparation and implementation. In Saxony quite a number of companies have adapted their plants to BAT required by the IPPC Directive. It is essential to further propagate this standard. We are working for a harmonization of the BAT standards within the EU. Saxony will play its part in this respect especially because of its central location.

Ladies and Gentlemen,

A sustainable production cannot be achieved overnight. To bring economic growth in line with environmental protection requires a policy of many little steps. "The secret of large and revolutionary actions lies in finding the little step that is at the same time also a strategic step causing further steps in the direction of a better reality.

So, it is not helpful to mock at the imperfection of today's reality or preach at the absolute as the order of the day, as the former Federal President, Gustav Heinemann, once said. Your conference will certainly contribute to find such little steps.

Ladies and Gentlemen.

A good host must also provide for an adequate conference framework. Right in front of the door step of this hotel we present to you the beautiful Florence of the Elbe – in German Elbflorenz. A foretaste of this nice capital city of Saxony is given by the view from this conference hotel.

Do not hesitate and use the time in between for a walk to the reconstructed Church of our Lady to be consecrated in about a month from now. Or visit the great Semper Opera House, the Roman-

Catholic Church – Hofkirche where the heart of the famous Saxon King, Augustus the Strong, has been laid to rest, the Gallery of Old Masters or the Green Vault which recently moved to the castle. You will notice that the time will be too short to see everything.

Tonight at the buffet will be a good opportunity to convince yourself of the skills of the chef and his team. Please join us tonight at the reception by the Saxon Government. I would be pleased to meet you at about 6.30 p.m. Until then I wish you an interesting exchange of experience and lively discussions.

Welcoming Speech by Prof. Dr. Andreas Troge

President of the Federal Environment Agency

delivered by Dr. Michael Angrick
Federal Environmental Agency

Check against delivery

Minister Tillich,

Mr. Delbeke,

Mr. Salomon,

Ladies and Gentlemen,

It is a great pleasure for me to be able to welcome you here again in Germany at a conference on the IPPC Directive, following up on the Stuttgart conference in 2000 on the so-called Sevilla Process.

By worldwide comparison the European Union is the undisputed front runner in environmental protection on many counts. This may cause satisfaction, but it is no justification to lean back and relax. Particularly the current debates on climate protection and particulate matter show that environmental standards in industry need further improvements.

Such improvements are possible, as the European Union's approach to achieve better environmental standards has substantially developed over the past decades.

On that note, the IPPC Directive is an extraordinary example of how the EU no longer focuses only on end-of-pipe solutions in devising its environmental policy – i.e. to filter out pollutants before they can enter the environment –, but relies on integrated pollution prevention, which means avoiding the emission of pollutants instead of reducing pollutant levels and loads.

The IPPC Directive uses the concept of sustainable production as a guiding principle. The Directive aims at achieving a high level of protection for the environment by applying the best available techniques and requires an adjustment of industrial plants to the dynamic progress of the BATs.

Respecting health and environmental protection concerns and avoiding distortion in competition caused by unequal environmental requirements imposed on industry require to harmonising environmental standards for industrial plants throughout the whole of the EU at a high level.

At the moment the EU is working on environmental protection strategies extending to seven central policy fields in the medium term, including for instance air quality, resource conservation and soil protection. These strategies will largely determine the future requirement standards of the IPPC Directive as a cross-media directive that is geared to the guiding principle of sustainability.

- After the discussions within the context of the "Clean Air For Europe Process" (CAFE) on the

air pollution control strategy until 2020 it has become clear that in all sectors of the economy it is necessary to implement considerable extra measures to reduce emissions. In this regard, the industrial plants that are covered by the IPPC Directive will also have to make their contribution.

- It can furthermore be expected that more needs to be done in industrial plants regarding soil protection. In line with the IPPC Directive's ambition to look at emissions in all environmental media, this aspect must be acknowledged in the revision of the BREFs that was started this year.

In the light of the discussions of the past months I would like to underline explicitly that the content of the strategies must be geared to environmental quality objectives and that a clear time frame is needed for their implementation. The EU enlargement must not be used as a pretext for watering down the requirements of environmental protection.

The Cardiff Process initiated by the European Union in 1998 on integrating environmental protection into other policy fields is an elementary building block for implementing the EU's sustainability strategy. It acquires even greater significance against the backdrop of the Lisbon Process through which the EU intends to become the most effective economic area worldwide.

In plain language this means that unless we succeed in improving our economic performance without imposing a higher burden on the environment by using up more resources we would be deviating from the path towards a sustainable Europe, thus relinquishing the future prospects of the next generations.

I am not alone in this opinion: EU Commissioner Günther Verheugen pointed out in a speech delivered early in 2005: "As we in the EU see it: if something is ecologically wrong, it cannot be economically right."

These words illustrate that environmental protection within the Lisbon Process can give an impetus to growth and employment.

We know that active environmental protection means using up less resources and opens up new savings potentials and, thus, cost advantages.

That way we can contribute, among other things, eco-efficient innovations such as low-energy technologies and resource efficiency – which are central objectives of the IPPC Directive – to improve the competitiveness of the European Union and expand our markets. This is demonstrated by recent figures from 2003: Germany exported potential environmental protection assets amounting to 35 billion US dollars. With a share of almost 19 % in world trade, for the first time in ten years German companies have taken the lead over the US and Japan. Such successes would not have been possible without advanced, forward-looking environmental policy.

Even after the EU enlargement environmental protection will continue to produce growth and employment.

By taking on ambitious EU environmental standards there will be an increasing demand for

advanced environmental technologies in the new member states. The environmental market in the Central and Eastern European countries ranks among the markets with the biggest growth potential worldwide.

For some very good reasons therefore, this conference places special emphasis on the situation of the new EU members and the candidate countries in the implementation of the IPPC Directive.

The enlargement of the European Union from 15 to 25 states is more than an effective environmental protection measure for European and international environmental policy. Bringing the ten new members closer to Community rules, standards and policies is not just an excellent example of active environmental protection, but it is also the biggest and most successful European environmental programme so far.

Ever since the EU accession negotiations started in 1998 with the ten countries which today form part of the European Union, the Community granted technical support for institution building and for preparing the countries of Central and Eastern Europe for the implementation of the Community's Acquis Communautaire.

During this preparatory phase the cooperation between the existing EU members and the former candidates became much more intense – both in bilateral contacts and through the already existing networks.

Coping with the tasks of the pre-accession stage was obviously not easy – neither for the candidates nor for the existing EU members that supported this process in the environmental field.

In fact it proved to be a great challenge for the candidate countries to adopt EU environmental legislation into national law.

In the environmental field alone about 140 directives had to be transposed into national law. The so-called PHARE twinning program proved an efficient instrument of cooperation between authorities and contributed substantially to a timely adoption of Community legislation and the establishment of effective administrative structures.

I say this against the background of special experience: Since the inception of the twinning programme in 1998 Germany has become by far the most active Member State in the environmental sector, counting now 58 completed and on-going projects. One of the focal areas of German commitment is preventive environmental protection in industrial plants, particularly the implementation of the IPPC Directive, and the establishment of the administrative structures needed for this.

The twinning instrument is so attractive because it enabled experts from administrations from old and new Member States to tackle the tasks together.

Seven years of experience with the twinning project have shown that both sides benefit from this commitment. The daily working routine in the projects lays a foundation for long-term partnerships that also foster bilateral contacts extending beyond the particular twinning project and that can help to usher in cooperations with other fields of policy or economy.

On this note it seems to me quite justified that this conference should be not just a platform of exchange between all stakeholders, but should further promote the establishment of networks.

Ladies and Gentlemen,

I wish this conference the best of success and want to encourage you to participate actively in an intense and cooperative exchange of ideas and experiences during these two days in Dresden. Make use of the opportunity provided to you by this conference! Share and enjoy!

The IPPC Directive, progress and future Developments by Jos Delbeke

Director for Air and Chemicals, DG Environment, European Commission

Check against delivery

Herr Minister, ladies and gentlemen,

I very much appreciate this opportunity to welcome you to this conference on sustainable production and the IPPC Directive.

First of all, I would like to thank the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and the German Federal Environment Agency, which have co-organised this conference with the European Commission.

Also, many thanks to the Land of Saxony, which is kindly hosting this event, and to the Ministry of Environment of Hungary, which helped to integrate topics of specific interest for the new Member States into the Conference agenda.

This conference is an important event at a crucial moment for the environmental regulation of industrial installations. A lot has happened within Member States and industry since the IPPC conference in Stuttgart in 2000 – It is now time to take stock and prepare the future!

The IPPC Directive is a major piece of legislation regulating around 55.000 installations in the EU. The environmental impact of these installations is large. For instance, according to the European Pollutant Emission Register, or EPER, IPPC installations were responsible for over 70% of the total sulphur oxides emitted in 2001 from the then 15 EU Member States, and 42% of the total carbon dioxide emissions.

The economic dimensions of the industries covered by the IPPC Directive is very important as they represent the backbone of European Industry. It is a significant challenge both in terms of environmental protection and competitiveness to regulate and operate these large industrial installations in a successful way.

Today, too often the environment is being opposed to economic performance and competitiveness. The Commission believes that well-designed environmental legislation can achieve both through innovation and deploying environmentally friendly technologies. This conference is an excellent opportunity to exchange views on the performance of the IPPC Directive in both respects and to define pragmatic ways to further improve the current framework.

I would like to take the opportunity to develop some key points which I hope will feed into your discussions during the conference.

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It has taken around 30 years to shape the current legal framework. During the 1970's and the

80's, Europes's environmental policy developed in a stepwise manner, requiring a major consolidation exercise.

This led in 1996 to the adoption of the IPPC Directive. It is based on 3 key strategic principles: firstly, the integrated approach to make sure that all environmental impacts are considered together through an integrated permitting procedure addressing them all; secondly the concept of "Best Available Techniques" which plays a crucial role in the permitting of installations; and finally a flexible approach leaving discretion to competent authorities to take local circumstances into account.

Nearly 10 years after its adoption, time is ripe for a meaningful stock taking exercise.

The reporting from Member States, consultation of and dialogue with industry and other stakeholders, and the Commission's own assessment, all converge towards the same conclusion. This is my first point:

The IPPC Directive is recognized by all those concerned as a most useful instrument to regulate industrial installations with a view to achieving integrated pollution prevention and control.

I would like to applaud Member States for their efforts made to transpose and implement the Directive. This represents in the majority of Member States very significant work.

In some Member States, major new pieces of legislation have been enacted. Several Member States have had to adapt or even build up new administrative systems for permitting. Despite the many challenges they faced, new Member States have generally been very active.

Efforts have also been important from the side of industry. Preparing good permit applications, and improving operating conditions to meet IPPC permit requirements, can involve important costs and commitments. Some operators have found in the IPPC Directive an opportunity to implement economically attractive techniques, but others have had to adapt, through costly investments, to a higher environmental performance level.

Another element of the success of the IPPC Directive is the Sevilla process. The information exchange on BAT organised by the Commission, with the key contribution of the IPTS, is a crucial reference point to determine permit conditions in the Member States. The first round of 32 BREFs covering all significant IPPC sectors is now heading towards completion and the review process of the BREFs has been kicked off.

In the Commission's view, the Sevilla process represents an inclusive, transparent and participatory approach which has proven to be very successful.

It generated a high level of involvement and interest from many parties – Member States, NGOs and industry in particular. It has also represented a large effort for the Commission. A particular thank should be addressed to the European IPPC Bureau in the IPTS. Several BREF authors are in this room today and I would like to congratulate them for their excellent work!

Exchanging information on BATs and agreeing on BREFs has been very valuable for all, not only sector by sector but also across sectors. It definitely plays an important role for the dissemination and enhanced use of environmental technologies.

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However, there is no reason for being complacent. The full implementation of the Directive is, in too many Member States, far from being completed. As the Directive will only deliver the expected and full results when all existing installations will comply with it, we must make sure that thishappens in due time.

Hence, my second point:

The full implementation of the IPPC Directive by the end of October 2007 still requires rapid progress and stronger efforts.

In a number of Member States, stronger political support and administrative resources are necessary to ensure that the deadline of October 2007 is met. The levels of resources and the training of competent authorities are often real problems.

The Commission is particularly concerned by the situation in certain Member States where permits have been issued or reconsidered only for a small proportion of existing installations, apparently as low as 10% in certain cases. Two years before the 2007 deadline, this is a matter of serious concern. In addition, installations should be given sufficient time to fully comply with the Directive by this date.

Against this situation, the Commission has decided to intensify its efforts to monitor regularly the progress made by Member States.

A number of concrete actions are underway:

- Member States have been asked to report details on the number of permits issued. On this basis, indicators on the progress made in the permitting of installations are being set up and will be made public.
- A detailed assessment of implementation across the EU, including through examination of the application of the Directive and the permits issued in 30 case study installations, has been launched by the Commission.
- The 80 installations with the highest levels of emissions reported through EPER have been identified, and the actions being carried out by Member States to apply the Directive are being closely monitored by the Commission.
- The Commission will also visit the authorities of the Member States where significant additional efforts are required.

Finally, if the Commission identifies cases of inadequate application of the Directive, it will pursue all necessary actions, including through infringement procedures, where necessary.

The enforcement of the IPPC Directive is not straightforward: its flexible nature inevitably means that there is not a single and harmonised European standard against which to assess implementation. However, it is clearly possible for the Commission to take action where it considers that the flexibility and discretion allowed for in Community legislation are being abused and that Member States do not sufficiently take into account of the BREFs in the permitting procedure for instance. Strengthened by recent jurisprudence, the Commission is more determined than ever to take legal steps when necessary.

My message is therefore clear and will be repeated by the Commission in the coming months: Member States have to dedicate the necessary resources to ensure a proper and timely implementation of the Directive by October 2007.

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I would like to look now at the medium and longer-term and inform you that the Commission has recently launched an extensive process to review the IPPC Directive and the related legislation on industrial emissions. This will be announced formally in the first report of the Commission on the implementation of the IPPC Directive, which we intend to publish by the end of the year.

Review of existing legislation is clearly part of good regulatory governance and it is indeed appropriate to initiate such a review 10 years after the Directive has been adopted. While there is broad agreement on the fact that the Directive provides a good framework and that its underlying

principles should not be affected, there is also room for improvement.

This brings me to my third point:

We need to examine how to improve our current legal framework to respond to today's economic challenges of the Lisbon Strategy while maintaining a high level of environment protection.

In this context, the process of **Better Regulation and Simplification** is an important driver. The Commission will therefore review the IPPC Directive, and its interactions with other legislation on industrial emissions, and assess options to further integrate and streamline the current framework.

This process should be accompanied by a similar process in the Member States since many solutions for simplification lie in the hands of national or local authorities.

I know that this item has been an important topic of discussion in yesterday's workshop, and I look forward to the ideas and suggestions that will come out of this.

The impact of the IPPC Directive on **competitiveness** will also be an important component of the Commission's review, in two respects.

First of all, I know that the **promotion of a level playing field within Europe** is an important issue for industry.

It is true that the inherent flexibility of the IPPC Directive inevitably allows for differences in

emission standards. However, you will concur with me that the current legal framework provides a realistic an d pragmatic approach for fostering more convergence in emissions standards. Tothat

end, the BREFs represent a unique tool.

However, the Commission remains vigilant to make sure that the inherent flexibility of the system is not used both to undermine the environmental objectives of the Directive and to create unjustified market distortions. This issue will be particularly assessed in the context of the review process.

Secondly, the Commission will also look at the potential impact of IPPC on **the overall competitiveness of the European industry**.

The Commission undertook in 2001 a study on the impact of BAT on the competitiveness of individual plants. This study found no evidence that companies using BAT were less competitive nationally or internationally. Indeed, plants performing well on the environmental front are usually able to use this as a competitive strength.

This is a key aspect which is too often underestimated or simply ignored: the IPPC directive acts as a driver for environmental performance and thereby helps stimulate innovation and good economic performance – just think about linkages between environment and energy savings - not an unimportant issue given today's developments on energy markets.

In view of the importance of the global competitiveness issue, the Commission has launched a follow-up to the 2001 study on competitiveness, in particular in view of the experiences gained during the last few years.

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The Commission's thinking on the future of the IPPC Directive is quite open, but there is one point I would like to highlight to you today:

It is fairly clear that the main principles of the IPPC Directive – namely BAT and integrated approach to permitting – will remain the basis for regulating industrial installations in the EU. However, at the same time we should investigate, how market-based instruments could strengthen the implementation of the IPPC Directive.

Large reductions of emissions have already been achieved in some areas, but there is still some major pollution to address. However, further reductions become in many cases more difficult and costly. The key question, therefore is how we can further improve environmental performance of installations in a cost-effective way?

How can we reward the front runners, develop incentives, and further promote innovation in environmental technologies? How can we develop a more dynamic system where operators are encouraged to improve their environmental performance and not just comply with their permit

conditions?

Within the context of the IPPC Directive, some Member States already developed market-based

instruments have been developed in certain Member States: for instance the NOx emission trading scheme in the Netherlands, the NOx refund charge system in Sweden and the German waste water charges act. Exchanges of views on the experience with such instruments are very much welcome.

The review should refine how the IPPC Directive can be a help to such development. Constructive ideas on how to improve the synergy between regulatory and market based approaches a most welcome.

The IPPC review will assess to what extent the IPPC Directive is either a hurdle or a help to such development, and will consider how a regulatory approach and a market-based approach can best work in a complementary way.

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To conclude, the Commission to carry out an ambitious review of the IPPC Directive based on the active contributions from the side of Member States and all relevant stakeholders.

This important review should not distract anyone from a timely and proper implementation of the present Directive. ***The deadline of October 2007 is unaffected by the review process***.

To prepare for that review, the Commission intends to organise in 2006 a **public hearing on the IPPC review.** We look forward to your constructive input at that rendez-vous. Meanwhile, I wish you a fruitful discussion during these two days.

Thank you for your attention!

Implementation of the IPPC Directive

Benefits, efficiency and gaps – An assessment of the IPPC Directive

Erik Nyström,
Environmental Protection Agency, Sweden

Abstract

The presentation was based on Mr. Nyström's experience from working with an integrated legislation for about 30 years. Sweden got an integrated legislation in 1969. In 1999 it was changed to incorporate some new issues, like energy conservation, from the IPPC-directive.

Mr. Nyström discussed Benefits, Efficiency and Gaps one by one and ended by drawing some conclusion

Benefits

To Mr. Nyström "Integrated" stands for an individual balancing of costs and benefits in one, single permit. Integrated stands also for flexibility as investment cycles, and changes in BAT and impact on the environment can be taken into account. Mr Nyström stressed the importance of a dialogue between the stakeholders including the public. Openness to the public adds to the credibility of the process.

Mr. Nyström noted the definition of "Pollution" and that the Directive emphasises that we shall always have in mind what is "best for the environment as a whole". He noted that consumption of energy and production of waste can cause pollution. According to the Directive BAT shall be used to prevent or, where that is not possible, reduce pollution. BAT shall thus also be applied to conservation of energy and minimisation of waste production.

Mr. Nyström noted that the BREF's can lead to better applications and decisions as well as a more level playing field. One should however be aware of that BREFs can be incomplete and become outdated. Mr Nyström also held the view that sometimes the BREFs are diluted by the strive for consensus and that translations could be improved and more complete.

Efficiency

Mr. Nyström showed a graph where the reduction of emissions of COD from the Swedish pulp and paper industry was compared with the production increase. He anticipated that half of the reductions was due to improvements in processes and techniques and the other half to pressure from legislation and the permitting process. He noted that other instruments also have played a role and can in the future do so even more. The mix can however be somewhat complicated and mean leaving both the integrated and the BAT approach. He was also of the opinion that Environment Management Systems can play a role not least on the road towards BAT for energy conservation.

Gaps

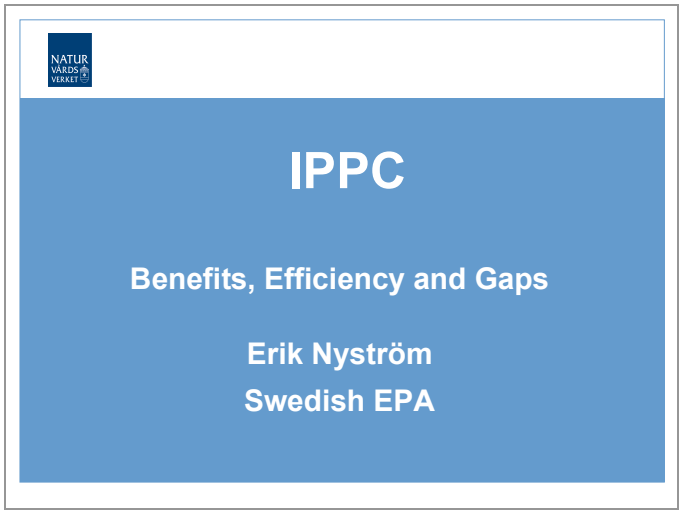
Mr. Nyström was of the opinion that an integrated approach for the SMEs, the Small and Medium sized Enterprises, is appropriate. He however saw problems with allocating the same amount of administrative resources to the SMEs as to the sectors under the Directive.

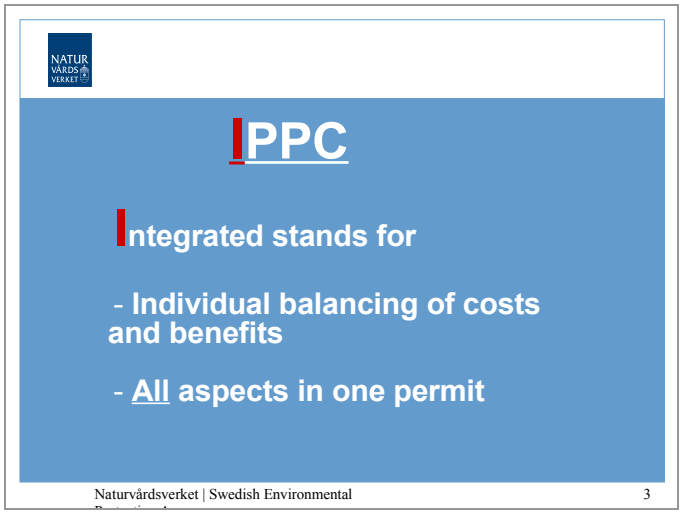
With an increasing numbers of Environment Quality Standards, EQSs, he saw a need for Programmes where the most important sources are identified together with the most effective mix of measures. It is not necessary so that it is cost-effective to go further than BAT for an IPPC-installation when more cost-effective measures can be taken at other sources like e.g. traffic.

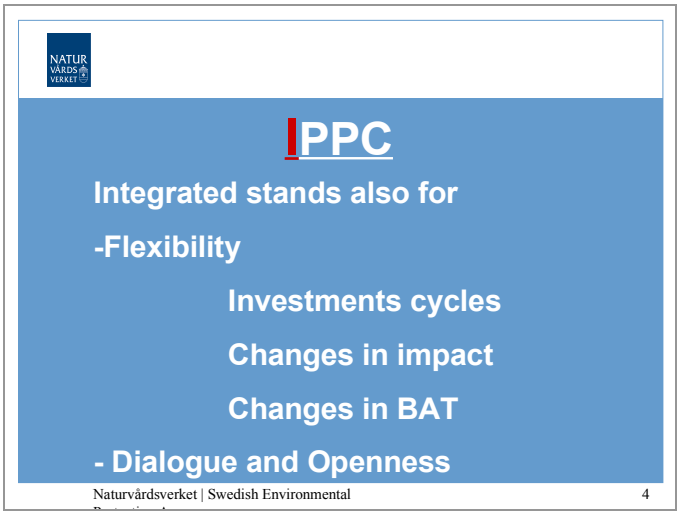
Conclusions

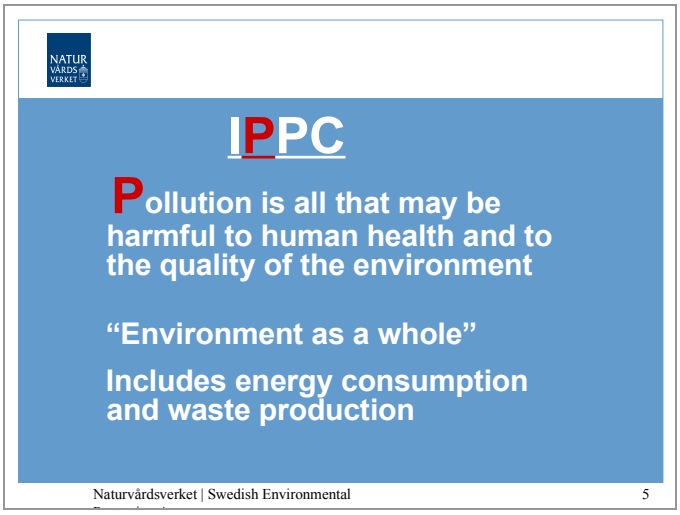
Mr. Nyström concluded that in his opinion IPPC permitting of large point sources is administrative intensive but still cost effective. He also noted that the use of BAT can go hand in hand with a prosperous industry. It should however be emphasised that IPPC is only one in a mix of instruments towards a more sustainable production.

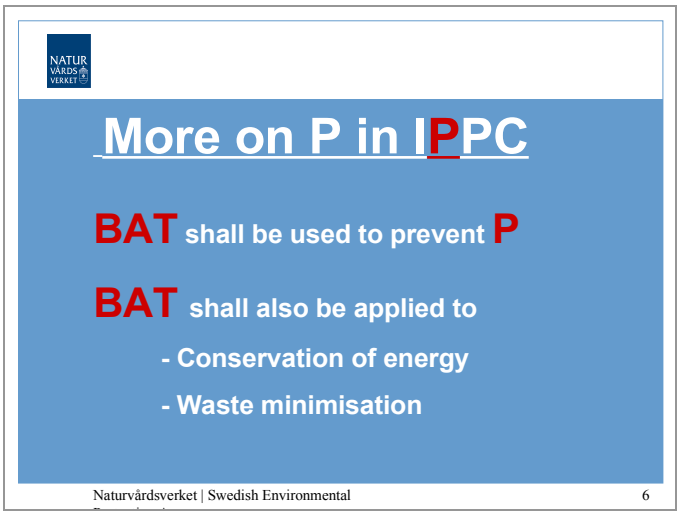
Presentation

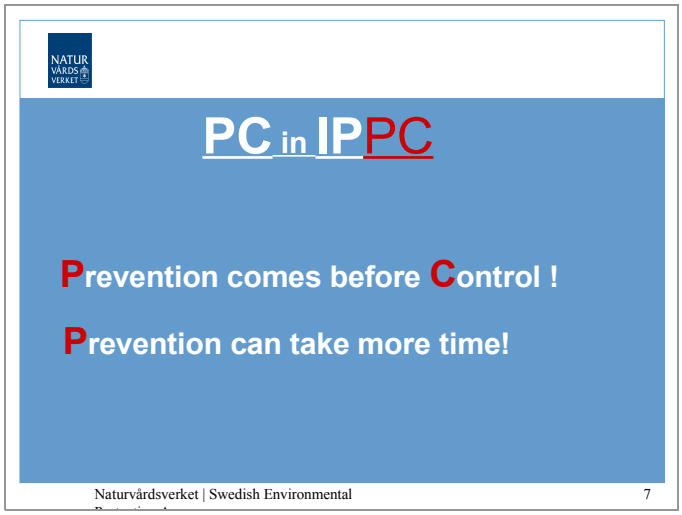




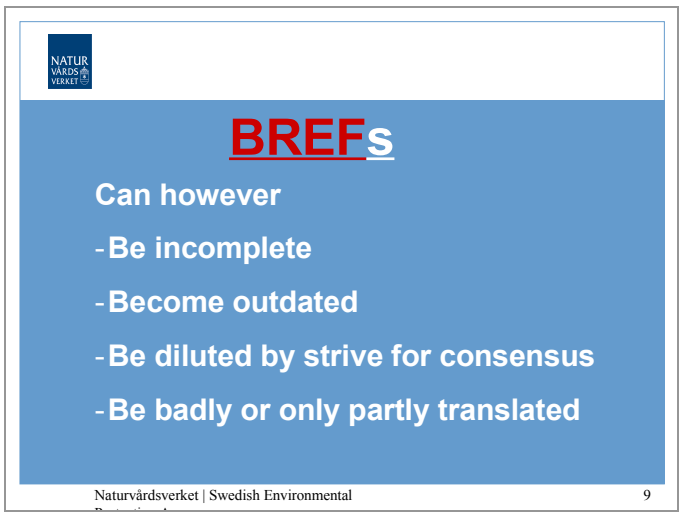

IPPC
Integrated stands also for
-Flexibility
Investments cycles
Changes in impact
Changes in BAT
- Dialogue and Openness
Naturvårdsverket | Swedish Environmental
4


IPPC
Pollution is all that may be harmful to human health and to the quality of the environment
"Environment as a whole"
Includes energy consumption and waste production
Naturvårdsverket | Swedish Environmental
5


More on P in IPPC
BAT shall be used to prevent P
BAT shall also be applied to
- Conservation of energy
- Waste minimisation
Naturvårdsverket | Swedish Environmental
6


PC in IPPC
Prevention comes before Control !
Prevention can take more time!
Naturvårdsverket | Swedish Environmental
7


BREFs
Can lead to
- Better applications
- A more constructive dialogue
- Better decisions
- A more level playing field
Naturvårdsverket | Swedish Environmental
8

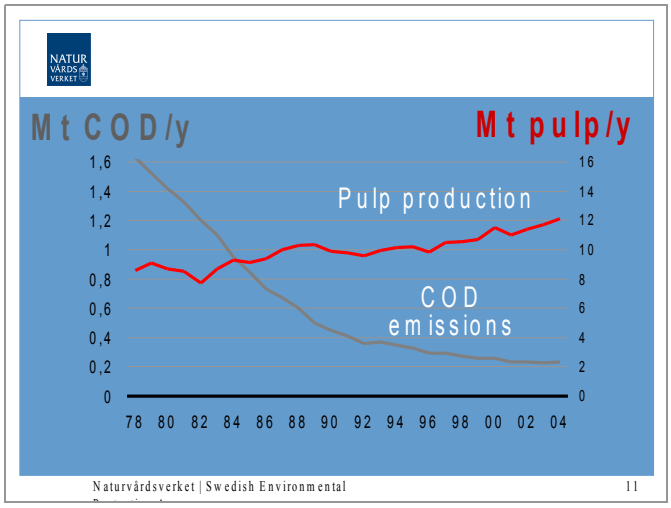

BREFs
Can however
- Be incomplete
- Become outdated
- Be diluted by strive for consensus
- Be badly or only partly translated
Naturvårdsverket | Swedish Environmental
9

Efficiency

IPPC

- Is highly effective in reducing emissions
- Can improve energy efficiency
- Can reduce waste production
- *But* requires skill and time

Naturvårdsverket | Swedish Environmental 10



Naturvårdsverket | Swedish Environmental 11

Other instruments, e.g.

- Emission Trading
- Voluntary Agreements
- Sector Directives

The mix can be complicated and mean leaving both the Integrated and the BAT approach!

Naturvårdsverket | Swedish Environmental 12

Another tool

Environment Management Systems

- Emphases Operators' responsibility
- Energy M.S. can be a tool towards BAT for energy conservation
- Part of "T" in BAT

Naturvårdsverket | Swedish Environmental 13

Gaps

SMEs

Evaluation of implementation

- can EPER also be used?
- can "Performance Reviews" play a role?

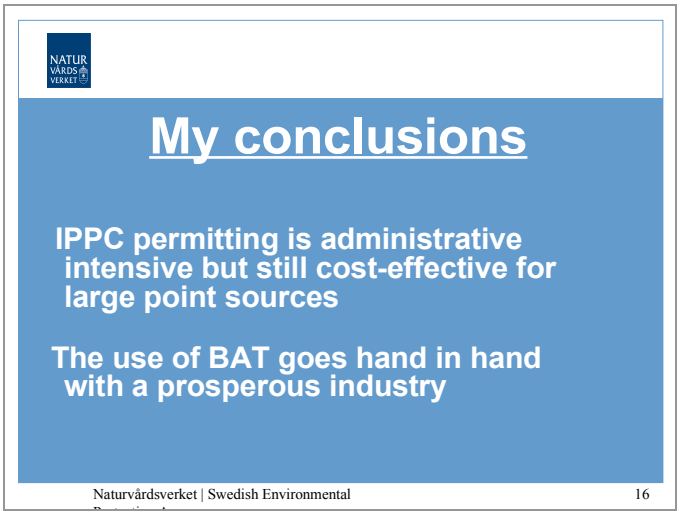
Naturvårdsverket | Swedish Environmental 14

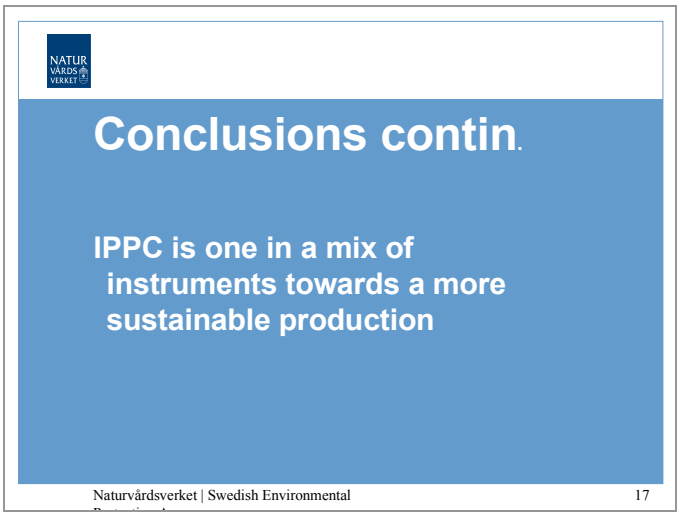
Gaps cont.

When EQS are not met

- Allocation of measures?
- Action plans are needed!

Naturvårdsverket | Swedish Environmental 15


My conclusions
IPPC permitting is administrative intensive but still cost-effective for large point sources
The use of BAT goes hand in hand with a prosperous industry
Naturvårdsverket | Swedish Environmental
16


Conclusions contin.
IPPC is one in a mix of instruments towards a more sustainable production
Naturvårdsverket | Swedish Environmental
17

The Sevilla Process - Opportunities, Challenges and Perspectives

Don Litten,
Institute for Prospective Technological Studies

Abstract

Council Directive 96/61/EC concerning integrated pollution prevention and control (IPPC) requires Member States to introduce a system of operating permits for certain categories of industrial activities as given in Annex 1 to the Directive. The permit shall include conditions and emission limit values based on "best available techniques" (BAT) but taking into account local considerations such as the technical characteristics of the installation and any special needs of the local environment. Article 16(2) provides that there shall be an information exchange between Member States and the industries concerned on "best available techniques", associated monitoring and developments in them. This information exchange has become to be known as "The Sevilla Process" which has been running now for just over 8 years and is heading towards completion of the first round of BAT reference documents. The Sevilla Process directly involves some 31 countries but has influence far wider. Despite a high level of success in the Sevilla Process, there are specific aspects to try and address in following developments in BAT through future reviews of the series of reference documents.

The IPPC Directive

The Directive 96/61/EC concerning integrated pollution prevention and control (IPPC) requires Member States to introduce a system of operating permits for certain categories of industrial activities. The Directive is transposed into national legislation and Member States can apply their national IPPC legislation to a wider scope of installations than the minimum required by the Directive.

Member States had to introduce this permit system no later than October 1999 for new and substantially changed installations and no later than 8 years later by October 2007 for all existing installations. Permits shall cover core Annex 1 activities and other directly associated activities on the site in order to consider all the important activities in an integrated way. The permit shall include conditions and emission limit values based on "best available techniques" (BAT) but taking into account local considerations such as the technical characteristics of the installation and any special needs of the local environment (Article 9(4)). How these local considerations are taken into account is left to Member States to decide (Recital 18). The IPPC Directive has so far been amended by Directives 2003/35/EC, 2003/87/EC and Regulation (EC) No 1882/2003.

The consolidated version of the IPPC Directive can be found at: http://europa.eu.int/eur-lex/en/consleg/main/1996/en_1996L0061_index.html where it is available in eleven different languages.

”BEST AVAILABLE TECHNIQUES” (BAT)

Article 2(11) of the Directive defines BAT.

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

Furthermore, in determining the best available techniques, special consideration should be given to the items listed in **Annex IV** which list twelve considerations to be taken into account generally or in specific cases when determining ”best available techniques”, as defined in Article 2 (11), bearing in mind the likely costs and benefits of a measure and the principles of precaution and prevention:

1. the use of low-waste technology;
2. the use of less hazardous substances;
3. the furthering of recovery and recycling of substances generated and used in the process and of waste, where appropriate;
4. comparable processes, facilities or methods of operation which have been tried with success on an industrial scale;
5. technological advances and changes in scientific knowledge and understanding;
6. the nature, effects and volume of the emissions concerned;
7. the commissioning dates for new or existing installations;
8. the length of time needed to introduce the best available technique;
9. the consumption and nature of raw materials (including water) used in the process and their energy efficiency;

10. the need to prevent or reduce to a minimum the overall impact of the emissions on the environment and the risks to it;
11. the need to prevent accidents and to minimise the consequences for the environment; and
12. the information published by the Commission pursuant to Article 16 (2) or by international organisations.

The Sevilla Process

Article 16(2) requires the Commission to organise an information exchange on best available techniques, associated monitoring and developments in them. It does not refer to setting emission limit values. Article 9(4) explicitly states that BAT is one of the inputs to determine permit conditions and Recital 18 of the Directive clearly leaves it for Member States to determine how to implement Article 9(4). Alternatively, of course BAT can be implemented through general binding rules under the provisions of Article 9(8).

In response to Article 16(2) the Commission has set up an IPPC BAT Information Exchange Forum (IEF), a steering group chaired by DG Environment with participants from Member States, EFTA countries and future Member States who are obliged to implement the Directive, Industry is represented through UNICE and non-governmental environmental groups are represented through the European Environment Bureau.

Through discussions at the meetings of the IEF, it was decided to carry out the detailed technical work with Technical Working Groups (TWGs) each dedicated to a specific work area, either addressing a vertical industry sector such as the production of iron and steel or a horizontal subject across IPPC industries such as monitoring or industrial cooling systems. The results of the work in the TWGs are reflected in a series of reference documents.

The procedure adopted in the work is structured so as to provide a stepwise approach to the determination of BAT based on information and data gathered together:

- identification of the key environmental issues for the sector;
- examination of the techniques most relevant to address those key issues;
- identification of the best environmental performance levels, on the basis of the available data in the European Union and world-wide;
- examination of the conditions under which these performance levels were achieved; such as costs, cross-media effects, main driving forces involved in implementation of this techniques;
- selection of the best available techniques (BAT) and the associated emission and/or consumption levels for this sector in a general sense all according to Article 2(11) and Annex IV of the Directive.

The emission or consumption levels ”associated with best available techniques” are to be understood as meaning that those levels represent the environmental performance that could be anticipated as a result of the application, in the sector, of the techniques described, bearing in

mind the balance of costs and advantages inherent within the definition of BAT. In some cases it may be technically possible to achieve better emission or consumption levels but due to the costs involved or cross media considerations, they are not considered to be appropriate as BAT for the sector as a whole. They may be justified in specific cases where there are special driving forces.

Here we have probably the most sensitive challenge in the Sevilla Process, to avoid readers of BAT reference documents concluding that any emission or consumption level mentioned in the document is intended to somehow become a legal limit imposed on industry. A great deal of effort has been expended to write explicitly in every document that an emission level concluded as BAT for an industry sector is not de facto a recommendation or proposal for the same level to be used as a legally binding emission limit.

It is observed throughout the EU that legally binding emission limit values are set, monitored and enforced in different ways according to the preference of the Member State in question. The IPPC Directive sets out some clear objectives requiring Member States to ensure, for example, that IPPC installations are operated in accordance with a permit and the permit conditions shall ensure a high level of protection for the environment as a whole. However, it is left for Member States to choose how to implement the Directive and achieve the objectives within.

Some Member States are observed to favour setting limits which must be complied with at all times, others favour some algorithm for determining compliance with a limit against a number of samples over a period of time. Some Member States favour limits related to the throughput or output of the installation, even to the point of having an average limit related to the annual production. All of the observed regimes for setting and enforcing limits for environmental emissions have strengths and weaknesses. What matters most for the environment is that a high level of environmental protection is achieved. Does it really matter how that is achieved?

Of course, a major opportunity presented by the Sevilla process is for industry to be able to engage in open dialogue with representatives from authorities of the Member States. The process aims to lead participants through a stepwise determination of BAT in a general sense based on evidence and information submitted to the TWG and analysed by them. It cannot be valid to claim that just because one operator achieves a certain emission level, it is automatically achievable by others within the techno-economic framework of BAT as defined in the Directive. It may be the case that one operator has managed to achieve the very best environmental performance and others could readily follow in his path. However it may also be the case that that one operator is in a fortunate situation regarding feedstock or integration with other processes which means the industry sector in general cannot achieve the same performance under technically and economically viable conditions.

The IPPC Directive provides for these techno-economic tests of BAT only at the industry sector level and there is no provision that BAT must be technically and economically viable at every installation in the sector.

A further major opportunity embodies within the Directive itself is that an industrial operator is obliged to make a detailed application for a permit and propose techniques and foreseeable

emissions from his specific installation. Thus he has the opportunity to make a good case and try and persuade the authority that his proposal fulfils the objectives of the Directive. Although the making of an application is not addressed in the BAT reference documents, the Sevilla Process is intended to assist the operators in making a good application by providing a common point of reference for all to use in the permitting process.

So what challenges have been faced in the Sevilla Process? The fundamental nature of the process is one of collaborative working with stakeholders to collect information from them and especially environmental performance data relating to the industry sectors being studied. It is quite logical that authorities tend only to have ”end of pipe” emission, ie that relating to the final emissions in order to check compliance with any existing permit and to assess the environmental impact of the whole installation. Detailed ”in-process” data is usually only held by the companies themselves but it is only by examining data with qualifications such as the conditions of the process, the state of production, the techniques in use at the time of measurements, that it is possible to objectively compare different installations within one industry sector. There are few examples where the different installations are directly comparable in terms of their product range, their feedstock and their operational conditions. It is therefore not totally unsurprising that the Sevilla process has suffered from a general lack of detailed and quantified data which can be objectively analysed and clear conclusions drawn therefrom. Sometimes the data is commercially sensitive, in other cases the detailed in-process measurements simply have not been carried out to generate a substantial data set. There are examples where one company has achieved a very good level of environmental performance and is justifiably proud of that achievement but suffers peer pressure from other companies not to bring their data into the open arena. IPPC and BAT are all about improving the environmental performance of industry within the economic framework of BAT and it is a major challenge to get some parts of industry to embrace the regime which will probably require investment from a number of companies. There is, however, another viewpoint in that competitors who are not required to invest and improve their environmental performance to something based on BAT, can have a competitive advantage over the companies which have invested in good environmental performance. In environmental terms it is nearly always more cost effective to improve a poor performing installation than to squeeze a little better performance from one that is already fairly good. All this suggests it is in the interests of both the environmental authorities and the environmental leaders in an industry sector to expose poor performers and focus efforts there to secure consequential environmental benefits.

Although a number of companies have reported that implementing BAT based measures has resulted in better process efficiencies with consequent better financial results, it is a challenge to adhere to the definition of BAT which does not require that a technique is environmentally attractive to a company, ie that it could result in cost savings, but that it is economically viable in the sector and it represents a good investment for the environmental returns. There are many examples of companies who have improved their environmental performance and have reduced costs or increased income through the application of certain techniques and it could be expected that other companies might also implement these economically attractive techniques provided they know how to. Ultimately, a technique which produces a small or large improvement in

environmental terms but is not economically attractive to industry is unlikely to be implemented unless it is required by legislation. This situation is mentioned again below specifically in the context of addressing energy efficiency, a relatively new area for a regulatory authority to address in a permit.

There is one challenge of BAT which, so far, can only be addressed subjectively and which explains why the IPPC Directive also mentions the principles of precaution and prevention. For some techniques it is possible to calculate the costs of implementing that technique and estimate the environmental benefit which will result in the consequent emission reduction or increase in efficiency. However, when we consider the scientific uncertainties of specific cause and effect relationships, such as climate change, it seems only prudent to adopt a precautionary approach.

Especially with a growing number of stakeholders, there is the significant challenge of handling data and information in an equitable and transparent manner. BREFs are now highly complex electronic files containing many cross references and links to ease navigation through such a wealth of information. On one hand it could be very interesting to present the series of BREFs, not just as a series of documents but as a multi-lingual integrated info-base. It may even be possible to develop an intelligent system with sophisticated search engines and user-selected options to assist users navigate more efficiently through the information and find what they are looking for. Resources are of course an issue in developing such a system.

Another aspect relating more to the development of BREFs themselves is to have a more integrated system designed to automate and structure the work of all those involved including those who draft BREFs and those who peer review drafts and comment on them. The Sevilla Process has already used various communication tools to make the process transparent and efficient but a new tool has been developed over the past four years or so, to so –called BAT information system (BATIS) designed to make it easier for reviewers to make comments on drafts and easier for those drafting the BREFs to collate and respond to those comments. With such huge resources involved in the process, any opportunity to make the process more efficient must be a bonus for all concerned.

Already it is clear that the scope of the IPPC Directive itself poses not so much a challenge for the Sevilla Process as an opportunity to explore the implications of a boundary and convey the views to those who may consider a review of the Directive in future. It is often only during the discussions inside Sevilla Process that the full picture is revealed about implications of a scope boundary. If one alternative process is inside the IPPC boundary and another is outside, how can they be compared and the environmentally better process promoted. Sometimes, taking a process outside the IPPC boundary could actually hinder its take up as authorities may be powerless to promote the cleaner alternative in the IPPC permitting process.

Developments in BAT and Review of BREF Documents

The series of BREFs represents both a snapshot of the current situation and a forward view of what might be expected as IPPC is implemented. In the first versions of BREFs, it was apparent that data is not available on some key issues such as energy efficiency. Additionally it became

evident that in some industry sectors, the historic regulatory framework had focused only on specific environmental media or pollutants.

The Directive provides for developments in BAT and requires that Member States ensure their competent authorities are informed about such developments. It is anticipated that such developments will focus on environmentally relevant parameters which may not have been universally regulated in the past, process efficiency measures, more cost effective treatment or abatement technologies and the transfer of technologies between industrial sectors sharing the same or similar environmental issues.

One particular objective in producing BREFs is not just to identify the techniques which currently reflect BAT but to identify the environmental performance (material or energy consumption, process efficiency or emission levels) associated with the use of those techniques. The ideal BAT conclusion would include a performance indicator (most usually an emission level) supported by a range of techniques or combinations of techniques capable of achieving the BAT performance level under economically and technically viable conditions for the industry sector. In this way, any new technique which is developed to be capable of achieving the BAT performance level or better under even more favourable economic conditions is implicitly promoted. This driver for innovation is also reflected to an extent in Article 9(4) which requires that permit conditions shall not prescribe the use of any technique or specific technology.

Many industrial processes are constrained by the basic chemistry of the process with certain products, by-products or waste being unavoidable. As chemical elements can neither be created nor destroyed the fundamental mass balance must be observed between the overall inputs and outputs of the process. It is thus inevitable, for example, that sulphur contained in feedstock materials will either end up in the product or be output as a by-product or waste. However, if there are ways to produce ”waste” in such a way as to make it more available or usable as a feedstock to another process, then there could be both environmental and economic benefits in doing so. Integration of different industrial activities can offer possibilities for material and energy recovery or reuse with overall environmental benefits. Although IPPC may not be able to deliver such integration of activities, the exchange of information on BAT and the resultant reference documents can provide a platform to discuss and expose such issues.

A review of a BREF does not have to mean a total review of all the information and it does not assume that BAT conclusions will necessarily change. Reviews will be focused on what new information is available since the earlier version was completed. Since the early BREFs were finished, further work has been done on how to structure the decision making with respect to economic and cross media issues inherent to the definition of BAT. A clearer framework now exists to try and reach BAT conclusions in a more transparent and consistent way.

One problem shared across many industry sectors is the collection of comparable data from individual installations in terms of energy efficiency. How data are collected and expressed can make them comparable with data from other sites or merely indicative. For many environmental parameters there are historical preferences across the EU on how data is expressed, for example in units of concentration, total load or specific load. It is sometimes said that industry will address

energy efficiency as part of normal business, constantly seeking to lower costs. However, as with waste minimisation, a business is only likely to voluntarily implement energy saving measures if the overall economics are attractive enough. By attractive, this often means that the energy saving measure will have a payback period in the order of months rather than years. It follows that an energy saving measure which may be highly significant from the environmental point of view but which is not so attractive from the economic point of view, possibly having a long payback period or even a net cost over time, is unlikely to be implemented unless there is some specific driving force to do so. Thus IPPC provides a driver for continuous attention to these aspects beyond that associated with normal good business practice. The Sevilla Process provides an arena for authorities and industry alike to increase their knowledge on what can be achieved and how.

Conclusions

The European Union welcomed 10 new Member States in 2004 and reviews of BREFs should not only seek to address developments in knowledge and understanding but should also try and include up to date information on the industry across the EU25.

The IPPC Directive and the technology based concept of BAT within is one part of a portfolio of tools to achieve a better environment. The IPPC Directive has already been amended to better facilitate emissions trading and it can be foreseen that IPPC needs to be considered not in competition to economic instruments or environmental quality objectives or controls on marketing and use of certain substances. All such tools can be complementary and provide a way for Europe to achieve a better environment. It is clear that many environmental issues cannot be tackled only at a local level and we need to appreciate the potential for transboundary and long distance effects in our complex environment.

The Sevilla Process may be globally unique. The fundamentals of a technology based approach such as BAT can also be found, for example in the US approach of ”maximum achievable control technology” (MACT). The EU has adopted BAT as defined in the IPPC Directive but has gone further to invest a huge effort in determining what BAT really means in practice. The Sevilla Process is not perfect, neither are the resulting BAT reference documents but it seems to be regarded by a great many stakeholders as a major step in the right direction.

Given the huge resources involved in the Sevilla Process, effort is being made to increase efficiency in the process. Dissemination of the results as a series of large technical documents is daunting to many. Is there a more user-friendly alternative to make access to and navigation through such a wealth of information? Are resources available to develop a new dissemination mechanism?

Don Litten, Environment Strategy Adviser
Sustainability in Industry, Energy and Transport (SIET)
Institute of Prospective Technological Studies (IPTS)
Joint Research Centre (JRC), European Commission

Edificio Expo, Isla de la Cartuja, Sevilla, E-41092 Spain

Presentation

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The Sevilla Process – Opportunities, Challenges and Perspective.

Don Litten, Environment Strategy Adviser (SIET)
Institute for Prospective Technological Studies (IPTS)
Seville, Spain

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European Council Directive 96/61/EC
of 24 September 1996 concerning integrated pollution prevention and control (IPPC)

As amended by:

- **Directive 2003/35** (dealing with public participation and access to information; adding that operator includes in application what alternatives have been considered)
- **Directive 2003/87** (specifying that IPPC permit shall not include emission limit values for greenhouse gases specified in emission trading scheme)
- **Regulation 1882/2003** (changing detail of committee procedure)

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Article 16(2) - "The Sevilla Process"

- A major step in stakeholder involvement (Member States and the Industries concerned) setting out expectations for future environmental performance of industry.
- Significant resources – EC and stakeholders.
- EU seemingly unique in setting up a mechanism to identify BAT with stakeholders and disseminate the results.
- Interest in results (BREFs) from outside the EU.

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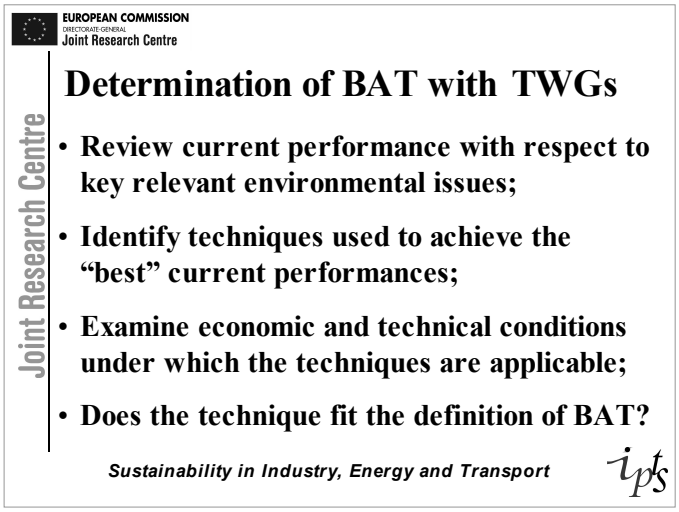
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Determination of BAT with TWGs
• Review current performance with respect to key relevant environmental issues;
• Identify techniques used to achieve the "best" current performances;
• Examine economic and technical conditions under which the techniques are applicable;
• Does the technique fit the definition of BAT?
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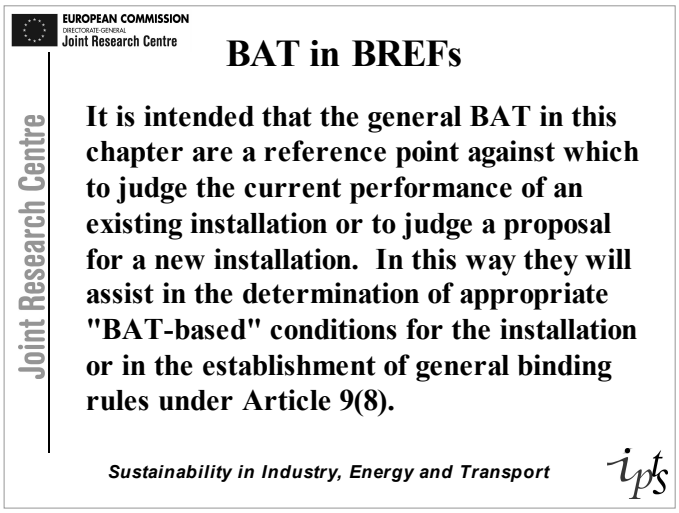
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BAT in BREFs
It is intended that the general BAT in this chapter are a reference point against which to judge the current performance of an existing installation or to judge a proposal for a new installation. In this way they will assist in the determination of appropriate "BAT-based" conditions for the installation or in the establishment of general binding rules under Article 9(8).
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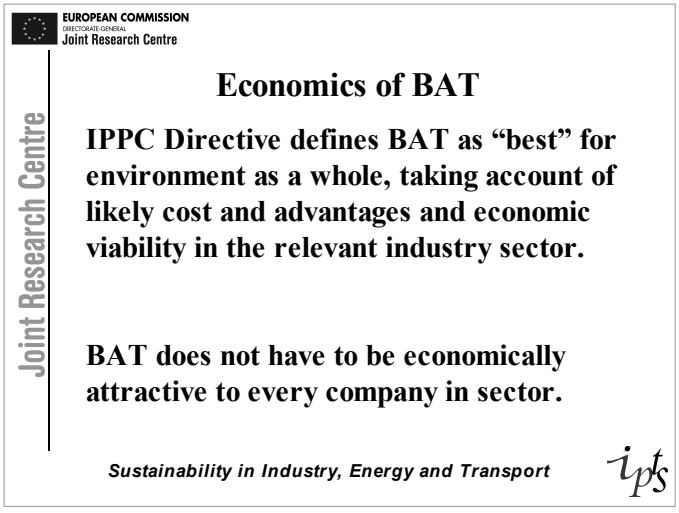
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Economics of BAT
IPPC Directive defines BAT as "best" for environment as a whole, taking account of likely cost and advantages and economic viability in the relevant industry sector.
BAT does not have to be economically attractive to every company in sector.
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Current observed performance not always qualified but expressed according to local "norm" including combinations of :

- **daily, monthly or annual average**
- **random single sample**
- **estimated or calculated**
- **direct or surrogate measurement**
- **international, national or local method**
- **reference conditions (for air)**

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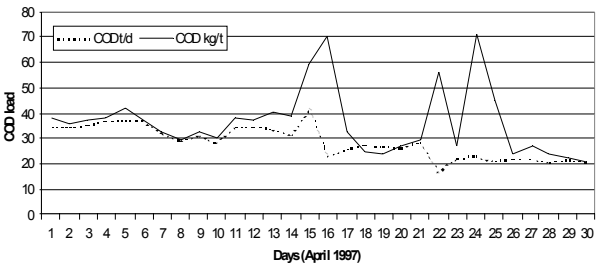
Examples of actual emission profiles – 1, effluent COD from pulp mill over 30 days



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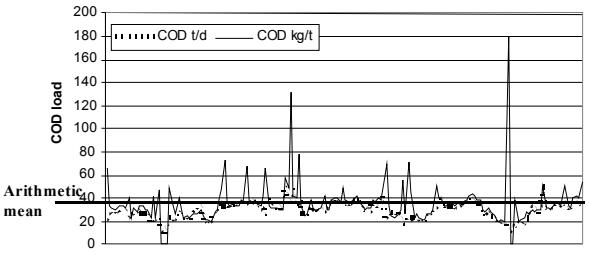
Examples of actual emission profiles – 2, effluent COD from pulp mill over 5 months



Arithmetical mean: 36.5 kg COD per tonne

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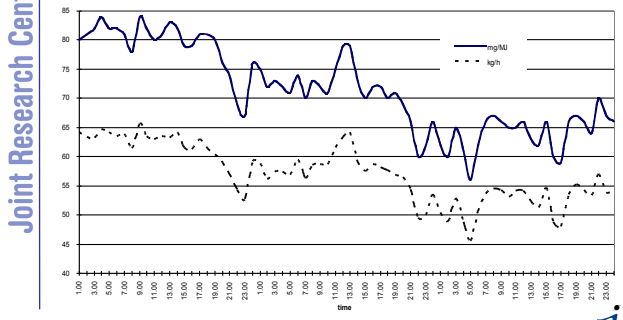
Examples of actual emission profiles – 3, continuous NOx from pulp mill black liquor boiler over 3 days



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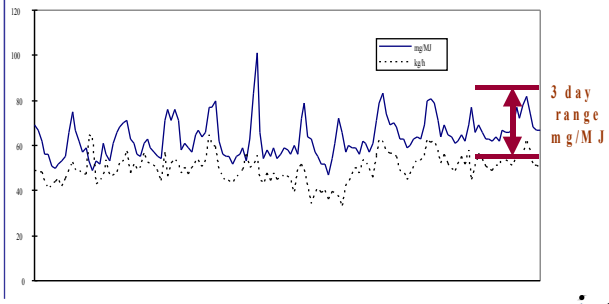
Examples of actual emission profiles – 4, daily average NOx from pulp mill black liquor boiler over 5 months



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Experiences of determining EU BAT

More or less detail ?

- **For some measures, the detail is critical**
- **Others rely on general principles**

Ideally a BAT conclusion includes :

- **what emission level can be achieved**
  - **note if concentration or load most relevant**
- **what measures can be used to achieve level**
- **any general issues relating to implementation**

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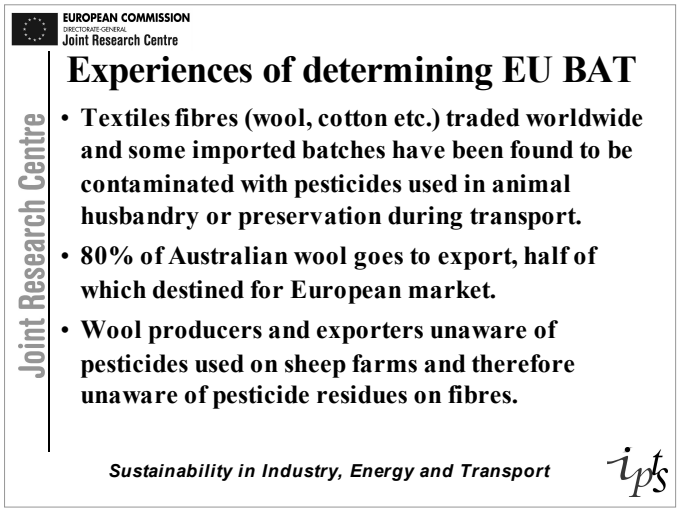
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Experiences of determining EU BAT
• Textiles fibres (wool, cotton etc.) traded worldwide and some imported batches have been found to be contaminated with pesticides used in animal husbandry or preservation during transport.
• 80% of Australian wool goes to export, half of which destined for European market.
• Wool producers and exporters unaware of pesticides used on sheep farms and therefore unaware of pesticide residues on fibres.
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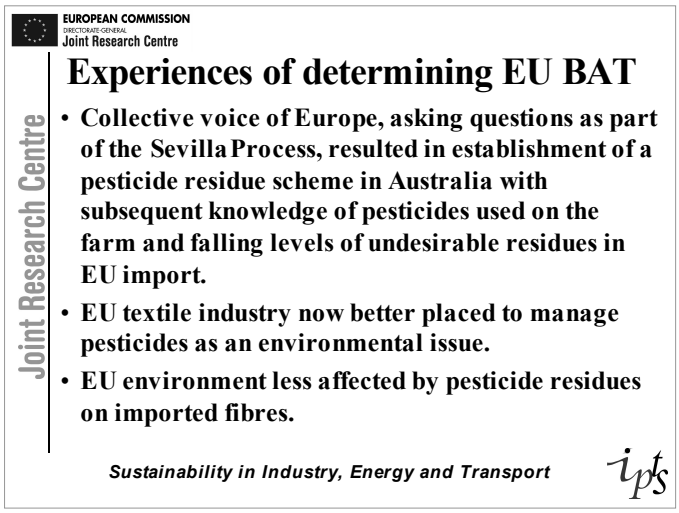
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Experiences of determining EU BAT
• Collective voice of Europe, asking questions as part of the Sevilla Process, resulted in establishment of a pesticide residue scheme in Australia with subsequent knowledge of pesticides used on the farm and falling levels of undesirable residues in EU import.
• EU textile industry now better placed to manage pesticides as an environmental issue.
• EU environment less affected by pesticide residues on imported fibres.
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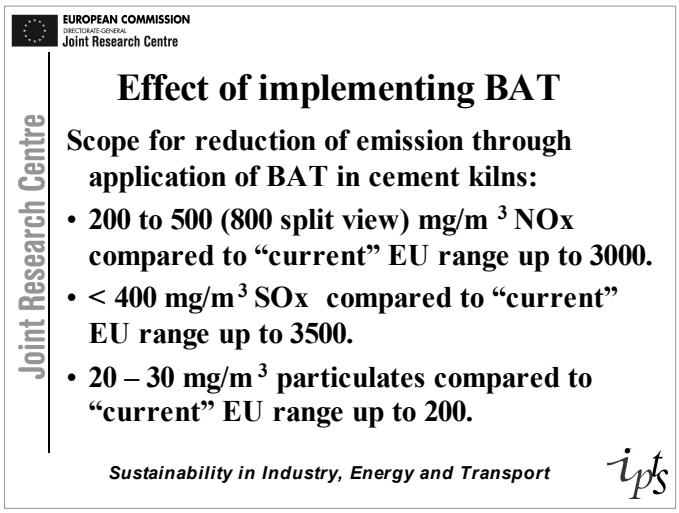
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Effect of implementing BAT
Scope for reduction of emission through application of BAT in cement kilns:
• 200 to 500 (800 split view) mg/m 3 NOx compared to "current" EU range up to 3000.
• < 400 mg/m 3 SOx compared to "current" EU range up to 3500.
• 20 – 30 mg/m 3 particulates compared to "current" EU range up to 200.
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Effect of implementing BAT

Scope for reduction of emission through application of BAT in glass manufacture:

- **500 to 700 mg/m ^{3} NOx compared to "current" EU range up to 5000.**
- **< 1200 mg/m ^{3} SOx compared to "current" EU range up to 4500.**
- **5 – 30 mg/m ^{3} particulates compared to "current" EU range up to 800.**

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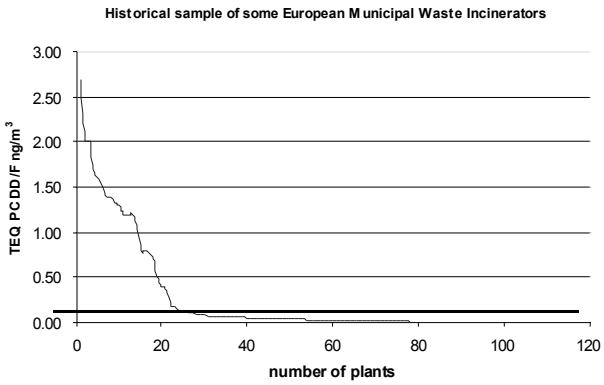

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"The future Sevilla Process" 1

- **Better match of expectations to available community resources - all stakeholders have limited resources.**
- **Results of research and development projects following first BREFs.**
- **Innovation already evident as companies react to "challenge" of BAT.**
- **New information to complement the original BREFs, much of original information still valid.**

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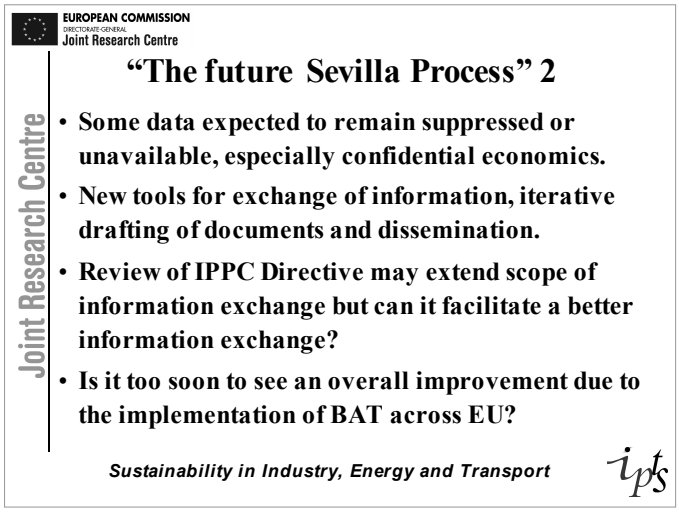
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"The future Sevilla Process" 2
• Some data expected to remain suppressed or unavailable, especially confidential economics.
• New tools for exchange of information, iterative drafting of documents and dissemination.
• Review of IPPC Directive may extend scope of information exchange but can it facilitate a better information exchange?
• Is it too soon to see an overall improvement due to the implementation of BAT across EU?
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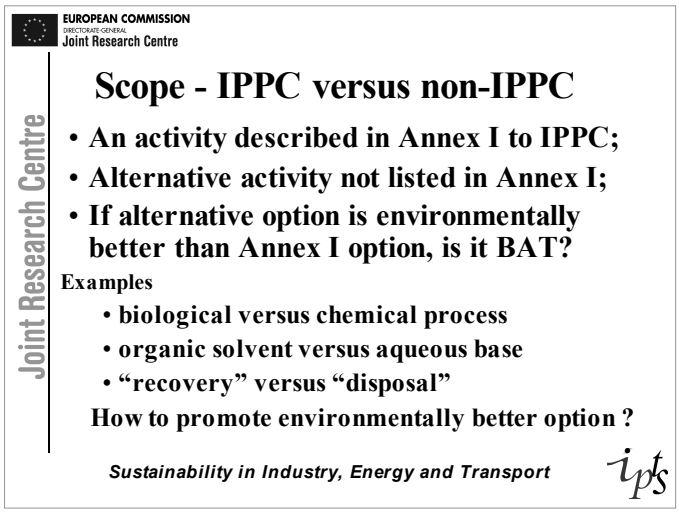
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Scope - IPPC versus non-IPPC
• An activity described in Annex I to IPPC;
• Alternative activity not listed in Annex I;
• If alternative option is environmentally better than Annex I option, is it BAT?
Examples
• biological versus chemical process
• organic solvent versus aqueous base
• "recovery" versus "disposal"
How to promote environmentally better option ?
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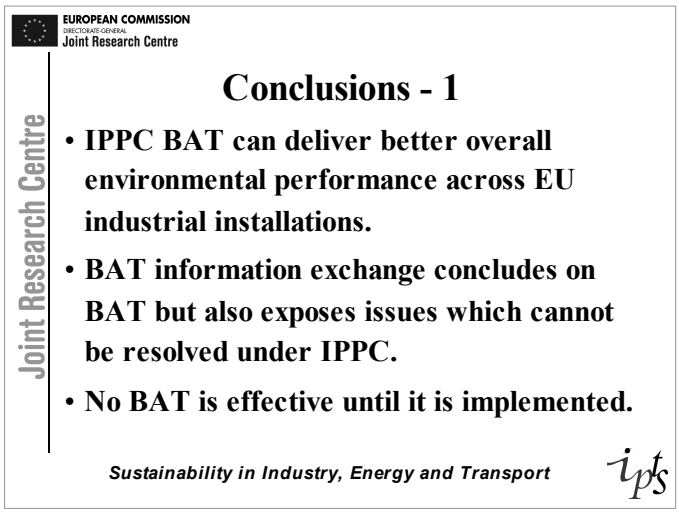
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Conclusions - 1
• IPPC BAT can deliver better overall environmental performance across EU industrial installations.
• BAT information exchange concludes on BAT but also exposes issues which cannot be resolved under IPPC.
• No BAT is effective until it is implemented.
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Conclusions - 2

- **An operator is obliged to consider the environmental impact of his activities, look at options to improve and make detailed proposals in his application for a permit – the Sevilla Process aims to assist both operators and authorities in the efficient implementation of IPPC.**

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Why Sevilla ?

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An Assessment of the IPPC Directive from the Perspective of an Industry

Jean-Marie Demoulin,
CEFIC – European Chemical Industry Council

Abstract

IPPC from Cefic Perspective

CEFIC PRESENTATION at the PLENARY SESSION

What is Cefic ?

- the forum and the voice of the chemical industry in Europe
- a major BREFs ”customer”

  On a total of 33 BREFs,

  - 9 are chemical industry specific, and
  - 8 are related to chemical industry as well as other industries

IPPC essential features

The IPPC Directive brings an innovative approach to permitting practice:

- A harmonised approach
- An integrated approach
  - Allows a proper optimization of the impact on the environment as a whole, with only ONE authority
- From a command and control approach to a process based on dialogue
  - Takes account of both specific local situations and economic aspects

IPPC: demanding requirements

- ELVs, the basis of a permit, are not defined ”a priori” but are the result of a detailed interactive process with both the authorities and industry playing high quality roles to ensure responsible decisions and trade-offs
- Compared to the previous regime, a more demanding mix of knowledge and experience is needed, together with the development of an ”IPPC” culture

IPPC: positive aspects

- The approach: harmonised, integrated and based on dialogue
- Responsibility remains in the hands of Industry regarding decisions about how to reach environmental goals
- Flexibility is provided to allow decisions tailored for the specific situation, instead of ”automatic” application of general rules

Challenges in IPPC implementation

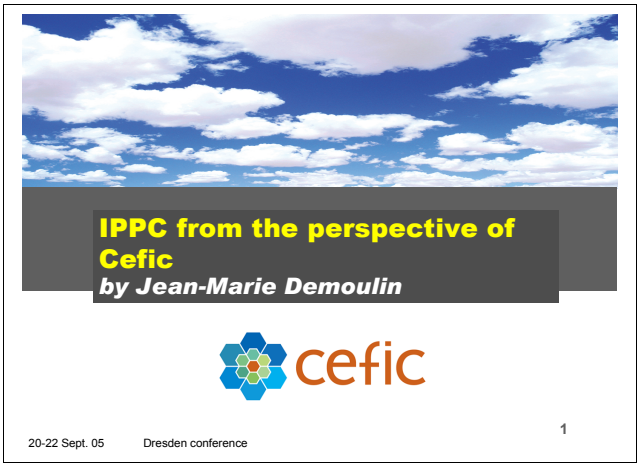
- There is often a lack of training on IPPC (to be solved) both on the side of industry and the authorities: the approach is new, the chemical industry is complex and BREFs are not easy to understand
- Ultimate environmental ambitions may not be feasibly fully realised in existing plants or plant configurations; investment cycles for new plants need to be taken into account
- There is a need for more coherence between IPPC and other legislations e.g. with
    - Emissions Trading,
    - LCP Directive,
    - Waste Incineration Directive
    - ...
- There is a need, for applying correctly everywhere the ”rules of the game”, e.g. to
    - assess costs against environmental benefits,
    - avoid oversimplification and inappropriate comparisons
    - correct misconceptions (e.g. ELVs and Env. performances..)
    - ensure correct translations…
- There is a need to achieve a proper balance between:
    - Level playing field and local specific circumstances
    - Technique driven approach and environmental protection
- There is a need to ensure that BREFs are reviewed
    - Only when there are significant changes in BAT conclusions which make the review really necessary
    - in an open and constructive dialogue with stakeholders

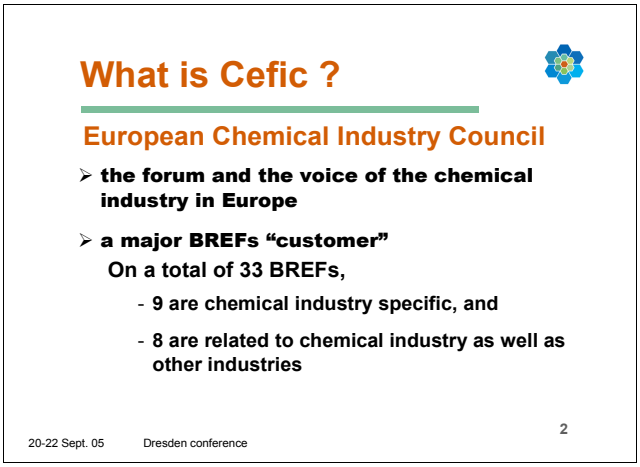
Conclusion

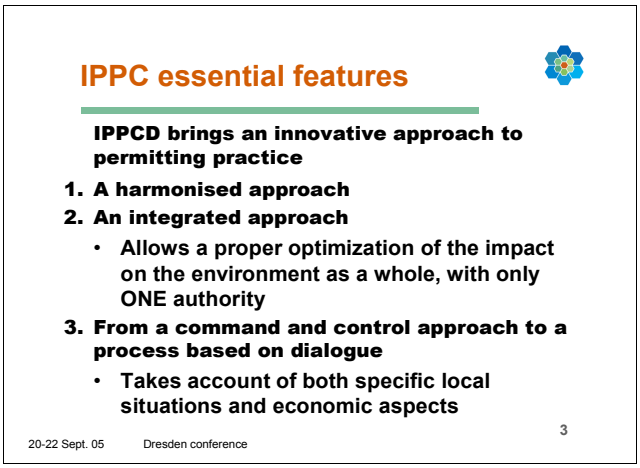
The IPPC Directive

- can be a major step forward toward better regulation, accepted by both industry and society as a whole
- but requires a growth in IPPC culture both within industry and authorities
- Cefic is ready to contribute to the achievement of this objective

Presentation







IPPC: demanding requirements

- **ELVs, the basis of a permit, are not defined "a priori" but are the result of a detailed interactive process with both the authorities and industry playing high quality roles to ensure responsible decisions and trade-offs**
- **Compared to the previous regime, a more demanding mix of knowledge and experience is needed, together with the development of an "IPPC" culture**

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Challenges in IPPC implementation (2)

- **There is a need for more coherence between IPPC and other legislations e.g.**
  - **Emissions Trading,**
  - **LCP Directive,**
  - **Waste Incineration Directive**
  - **...**

Challenges in IPPC implementation (3)

- **There is a need, for applying correctly everywhere the "rules of the game", e.g. to**
  - **assess costs against environmental benefits,**
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  - **ensure correct translations…**

Challenges in IPPC implementation (4)

- **There is a need to achieve a proper balance between:**
  - **Level playing field and local specific circumstances**
  - **Technique driven approach and environmental protection**

Challenges in IPPC implementation (5)

- **There is a need to ensure that BREFs are reviewed**
  - **Only when there are significant changes in BAT conlusions which make the review really necessary**
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Conclusion

IPPC Directive

- **can be <u>a major step forward</u> toward better regulation, accepted by both industry and society as a whole**
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CEFIC

The European Chemical Industry Council

Chemistry making a world of difference

An Assessment of the IPPC Directive and the Sevilla Process from the perspective of an environmental NGO

Stefan Scheuer,
EU Policy Director, European Environmental Bureau

Draft statement

The IPPC Directive is at the heart of environmental regulation of industrial activities in Europe. The Directive incorporates essential elements of sustainable development by moving towards a holistic view on environmental problems from local to global and across media and by increasing information and participation requirements. On the other hand the Directive dropped a fundamental rationale of EU environmental policies: the harmonisation of standards to avoid unfair competition and to address international environmental problems. In light of the persisting and well known environmental problems the IPPC Directive thus meets a great challenge. As a minimum we should expect that it drives environmental performance of industrial installations beyond ”normal” technological progress and investments cycles. But it all depends on whether high quality reference documents for BAT, which allow ambitious emission controls, are developed and minimum environmental quality standards set.

After participating for nine years in IPPC implementation the EEB presents following findings.

1. *High quality BREFs?* Overall description of available techniques and technologies is good. But description of environmental performance is low, presented erratic and unsystematic. Only ”classic” pollutants are documented and that in a way which does not allow comparison of efficiency of installations. Most worryingly emission levels associated with BAT are rare and unspecific.

2. *Ambitious permits and BAT based emission controls?* Implementation is still in progress but based on anecdotal evidence, methodological problems and political observations following conclusions can be drawn. Due to the lack of specific and clear emission levels associated with BAT and limited capacities of most competent authorities permits will be of very different ambition and emission controls will be driven by environmental quality standards – set at EU level or pioneering Member States – rather than by BAT.

3. *Transparency and participation*? Within the Sevilla process industries have often withhold information. Sometimes, EEB experts find themselves in the situation of being the only party to bring in ambitious performance parameters from existing plants. On the other hand the Directive led to the creation of EPER which is a significant step forward in making pollutant emission publicly accessible. Most worryingly participation of citizens at permitting procedures remains erratic and overall at low level.

Despite this rather mixed experience and the methodological problems identified the Directive remains a central instrument for environmental regulation of industry and has a great potential to

improve environmental performance in real life. Whether this potential will be realised depends on 1) sharpening the ”instrument” and 2) improving the Sevilla process, transparency and participation.

1) The EU elements of IPPC need to be strengthened. The Commission should use its mandate and propose emission controls in cases of persistent or long-term problems and the EU has to set new environmental standards, especially for water and soil. Toxicity data becoming available under the new chemicals policy, will help a lot in this. New expectations of what the Directive can deliver should not be created. Policies, which refer controls to IPPC, like in the case of Environmental Liability and plans to control hazardous chemicals under the Water Framework Directive, are not justified by the design and ”capacities” of IPPC.

2) The quality of BREFs has to be increased. Therefore public authorities and citizens' organisation need more capacities. The Commission and Member States need to fund NGO experts to participate in the Sevilla process. Industry must be obliged to provide real life emission values. At local level authorities need training and capacities in order to engage citizens and conduct proper consultation, which will be an important investment in effective governance and an attractive business environment.

Challenges in the Implementation of the IPPC Directive – The View of a New Member State

Zdenka Volna,
Ministry of Environment, Czech Republic

Abstract

The IPPC directive was transposed into Czech legislation by the Act No. 76/2002 on integrated prevention which came into force in the beginning of the year 2003. As a support for the operators there is a template of application in the decree No. 554/2002.

The permitting procedure in this country has four main parts. It begins with consultation of the content of the application with the relevant authority (regional authority or Ministry of the Environment) before it is officially submitted which is highly recommended, but not set in the law. After submitting the application it is send to the participant in the procedure and other involved institutions including Authorised expert person. At the same time the brief non-technical summary is published on the internet and on the official board of regional authority and during this time everybody can send its statements to the application. The Authorised expert person prepares the draft of the statement on the application, which includes the BAT assessment and the proposal of binding condition and negotiates its content with the operator of installation. The final statement is a supporting technical material for the regional authorities or Ministry of the Environment. After that the oral discussion takes place where the remaining points are discussed and in the end the integrated permit is issued.

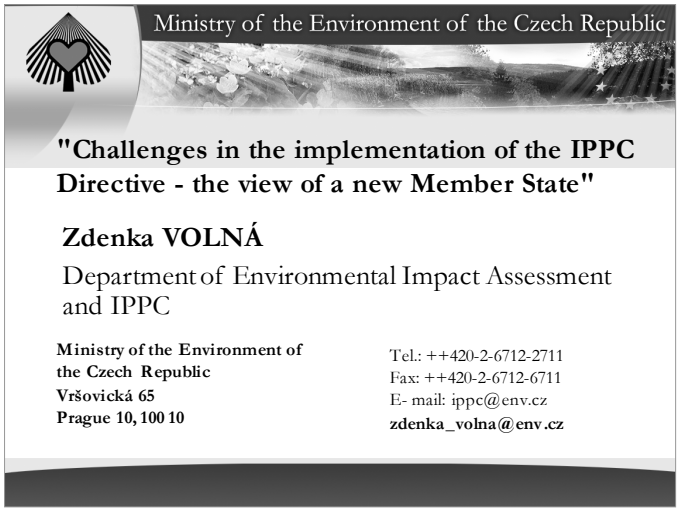
There are several sources of information about IPPC in the Czech Republic. On the website www.env.cz/ippc you can find the actual state of all permitting procedures and list of Authorised expert person, from the www.ippc.cz it is possible to download the Czech translations of all finished BREFs and there is the list of all IPPC installation on the www.cenia.cz.

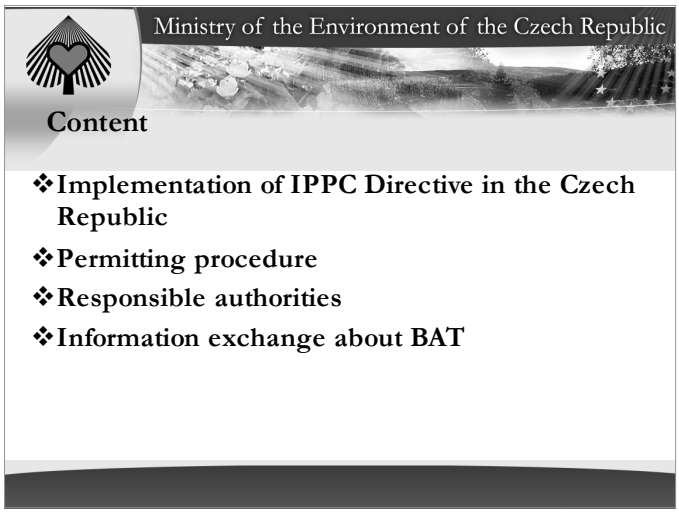
There is approximately 1500 installation in the Czech Republic. At the moment we have 500 applications under permitting procedure or permitted which means 700 installations. Up to now 356 permits was issued. So we have roughly 40 % of installations under the permitting process or permitted.

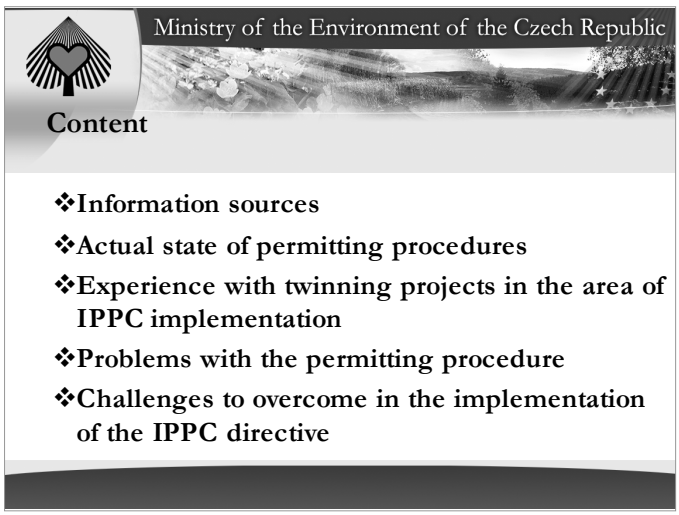
The remaining amount of the installation to be permitted is one of the problems to overcome. We also need to improve communication between regulator and operator and clarify some definitions such as how to set the boundaries of installation and what is substantial change and how to assess it.

The change of the way of thinking of permitting authorities and the operators to the integrated approach is one of the ongoing challenges to overcome and this is connected with the improvement of the communication between operator and regulator.

Presentation







Ministry of the Environment of the Czech Republic

Implementation of IPPC Directive in the Czech Republic

- Council Directive **96/61/EC** concerning integrated pollution prevention and control
- Act on IPPC (No. **76/ 2002** Coll., from 1st of March 2002, on integrated pollution prevention and control, on the integrated pollution register and on amendment to some laws (the Act on integrated prevention)) came into effect on 1st January 2003.

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- The Decree **554/2002,** establishing the template of the application for integrated permit, the scope and method of filling in of the application
- The Government regulation **63/2003** on the BAT Information exchange system came into force in January 2003.
- The Government regulation **368/2003** about Integrated Pollution Register (IRZ) came into force in January 2004
- The Decree **572/2004** about the form and the way of management of the data for IRZ

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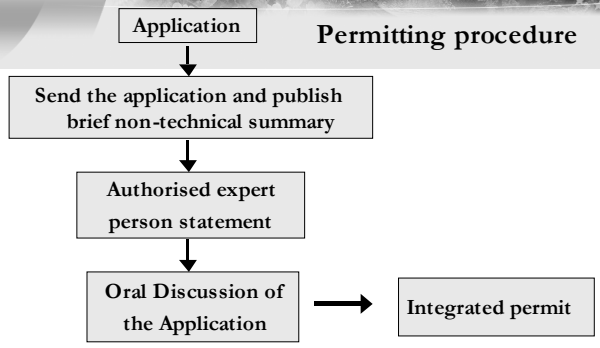
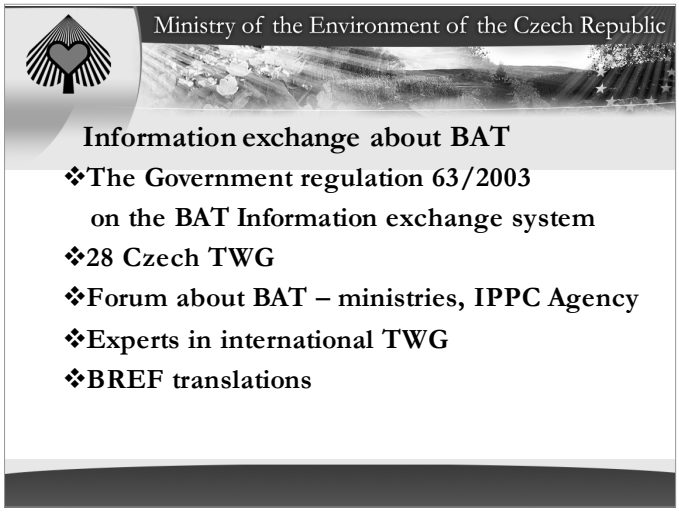
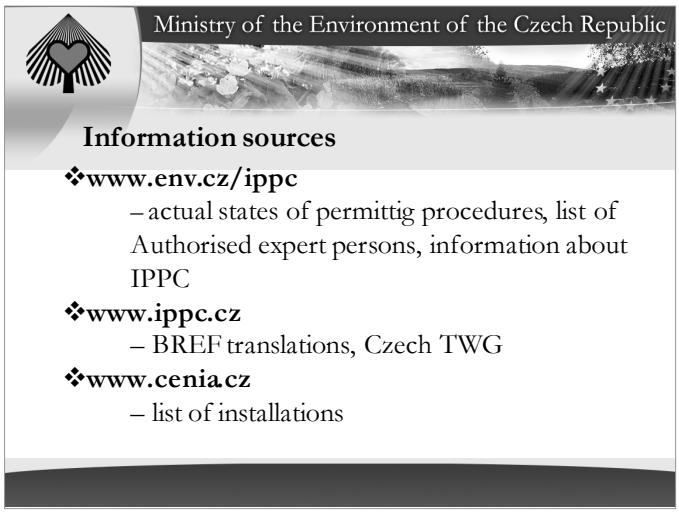
Permitting procedure




Ministry of the Environment of the Czech Republic
Responsible authorities
❖Ministry of the Environment – installation with transboundary effect and appeals
❖Regional authorities – integrated permits
❖Authorised expert person – statements
❖IPPC Agency – statements, expert support for regions


Ministry of the Environment of the Czech Republic
Information exchange about BAT
❖The Government regulation 63/2003 on the BAT Information exchange system
❖28 Czech TWG
❖Forum about BAT – ministries, IPPC Agency
❖Experts in international TWG
❖BREF translations


Ministry of the Environment of the Czech Republic
Information sources
❖www.env.cz/ippc
– actual states of permittig procedures, list of Authorised expert persons, information about IPPC
❖www.ippc.cz
– BREF translations, Czech TWG
❖www.cenia.cz
– list of installations

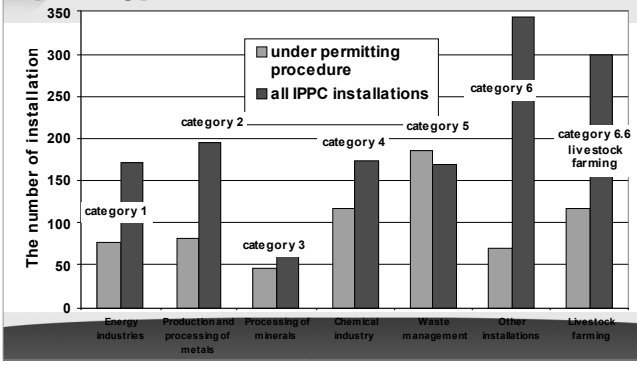
Ministry of the Environment of the Czech Republic

Actual state of permitting procedures

- aprox. 1500 installations
- 501 applications submitted = 700 installations
- 356 permits issued

Ministry of the Environment of the Czech Republic

The number of installation in each category which are under permitting procedure or falls under Act on IPPC



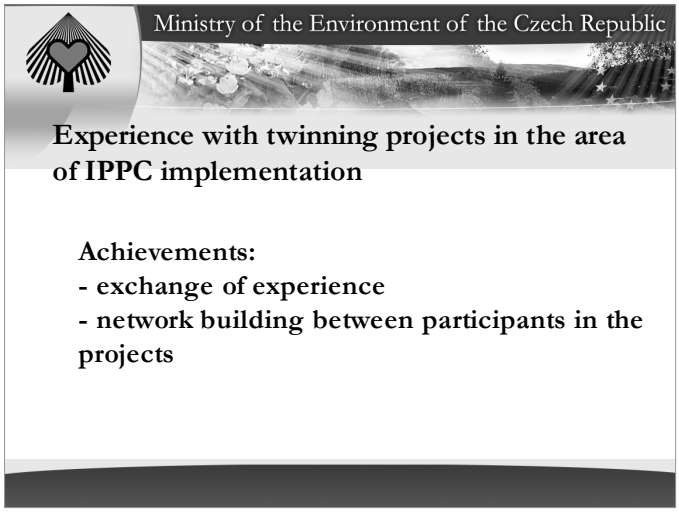
Ministry of the Environment of the Czech Republic

Experience with twinning projects in the area of IPPC implementation

PHARE Twinning 2000 No. CZ2000/IB/EN/01 – "Implementation Structures for IPPC (Integrated Pollution Prevention and Control) and Register IRZ (Integrated Pollution Register) (Germany)

PHARE Twinning Light 2001 – "Strengthening of the Application of the Directive 96/61/EC on IPPC" (Germany)

PHARE Twinning 2002 No. CZ02/IB/EN/03 – "Reinforcement of IPPC Implementation" (England and the Netherlands)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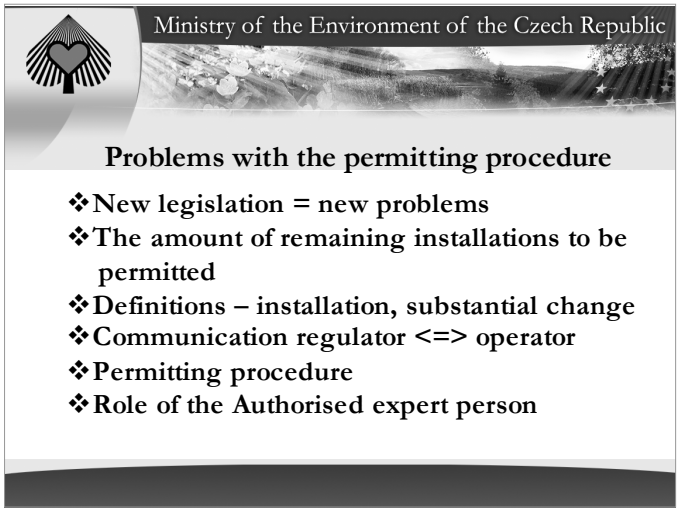
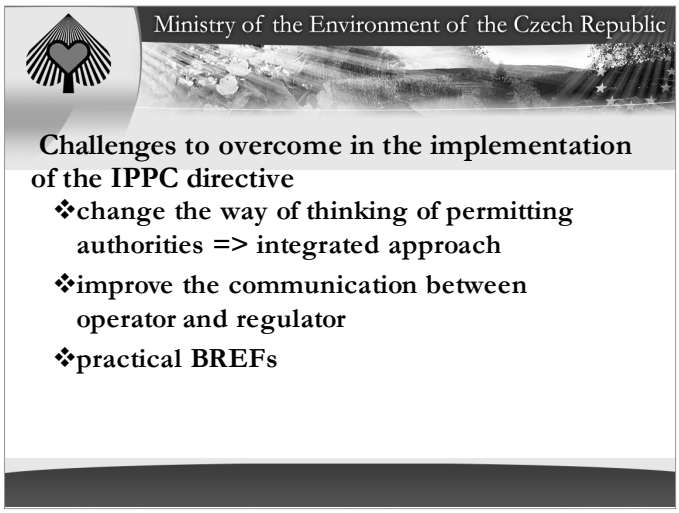
Experience with twinning projects in the area of IPPC implementation
Achievements:
- exchange of experience
- network building between participants in the projects

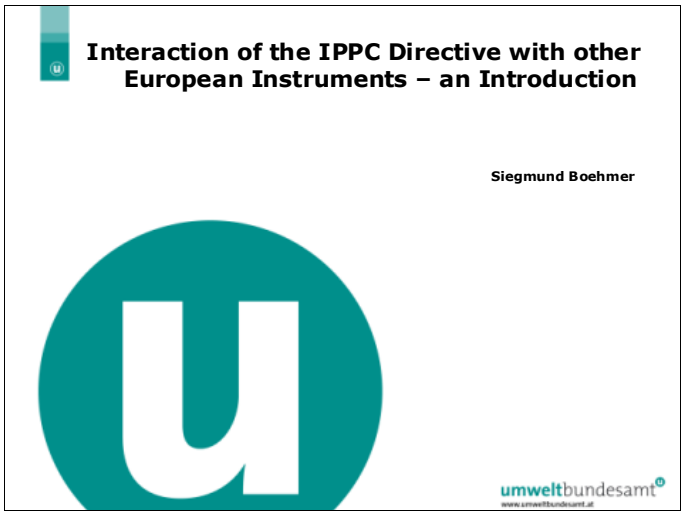

Ministry of the Environment of the Czech Republic
Problems with the permitting procedure
❖New legislation = new problems
❖The amount of remaining installations to be permitted
❖Definitions – installation, substantial change
❖Communication regulator <=> operator
❖Permitting procedure
❖Role of the Authorised expert person

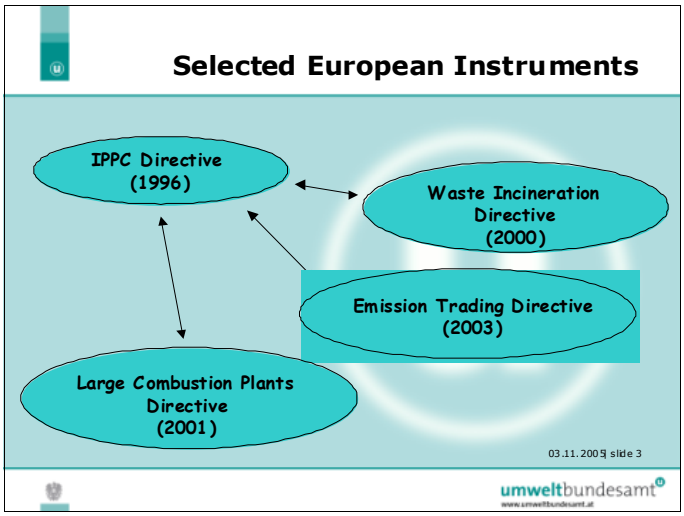

Ministry of the Environment of the Czech Republic
Challenges to overcome in the implementation of the IPPC directive
❖change the way of thinking of permitting authorities => integrated approach
❖improve the communication between operator and regulator
❖practical BREFs

The Interaction of the IPPC Directive with other European Instruments

The Interaction of the IPPC Directive with other European Instruments – An Introduction

Dr. Siegmund Böhmer,
Federal Environment Agency, Austria





Recitals

IPPC Directive

- intervention at source, polluter pays, pollution prevention (1);
- move towards a more sustainable development (2);
- integrated approach to reduce pollution (2, 3, 6);
- high level of protection for the environment as a whole

➔ **general framework**

- communication and full coordination (13,14);
- ELVs, equivalent parameters and techniques should be based on BAT (17);
- supplementary conditions beyond BAT can be required (19);
- dynamic processes : review and updating (20, 21, 22);
- transparent processes (23 – 26);
- exchange of information (25)

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Recitals

LCPD (2001) **WID (2000)**

- action at Community level is required (5)

- critical loads and levels of acidifying pollutants should not be exceeded (2, 3, 4);
- all people should be effectively protected against recognised health risks from air pollution (2);
- need to consider different characteristic of the LCP sector in the MS (6)

- precautionary principle (5);
- protection of human health (6, 7): stringent operational conditions, technical requirements and ELVs (7, 15);
- ELVs should prevent or limit negative effects on the environment and the resulting risks to human health (7, 23);
- Minimum requirements (5)

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IPPCD ◄► LCPD ◄► WID

Recital 8 (LCPD) and 13 (WID):

Compliance with ELVs … should be regarded as a necessary but not sufficient condition for compliance with the requirements of IPPCD regarding the use of BAT.

➔ more stringent ELVs based on BAT
➔ ELVs for other substances and other media
➔ other appropriate conditions

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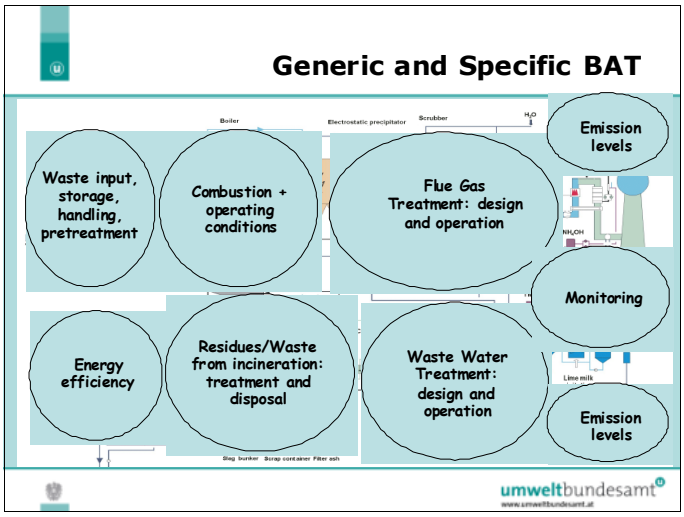
Generic and Specific BAT
Waste input, storage, handling, pretreatment
Combustion + operating conditions
Flue Gas Treatment: design and operation
Emission levels
Monitoring
Emission levels
Waste Water Treatment: design and operation
Residues/Waste from incineration: treatment and disposal
Energy efficiency
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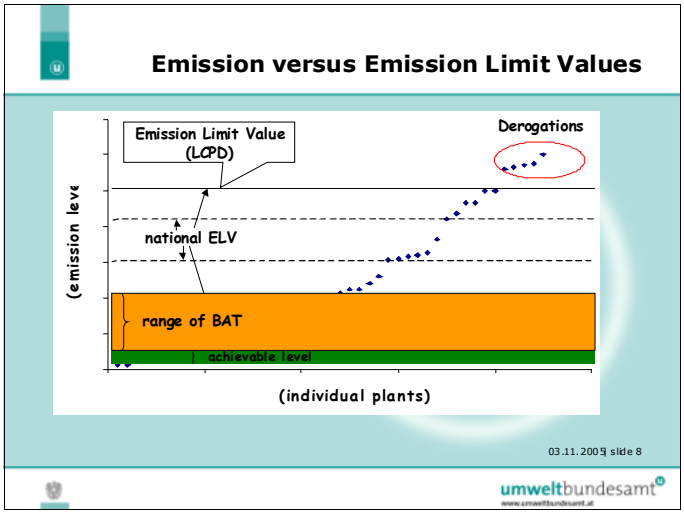
Emission versus Emission Limit Values
Emission Limit Value (LCPD)
Derogations
national ELV
range of BAT
achievable level
(emission level)
(individual plants)
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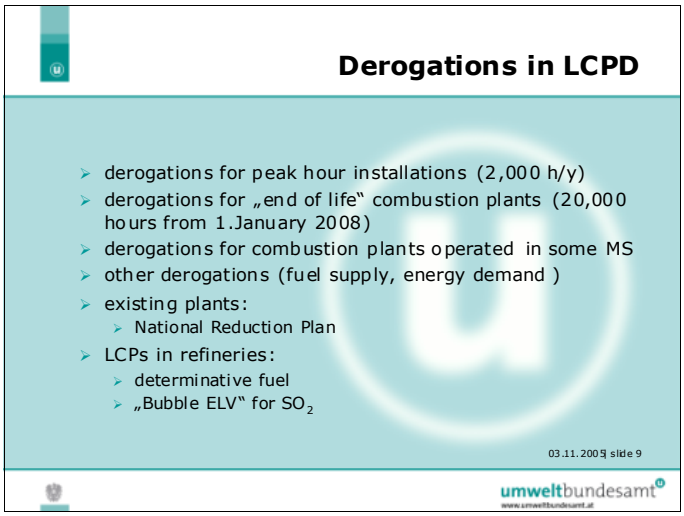
Derogations in LCPD
derogations for peak hour installations (2,000 h/y)
derogations for „end of life" combustion plants (20,000 hours from 1.January 2008)
derogations for combustion plants operated in some MS
other derogations (fuel supply, energy demand)
existing plants:
National Reduction Plan
LCPs in refineries:
determinative fuel
„Bubble ELV" for SO2
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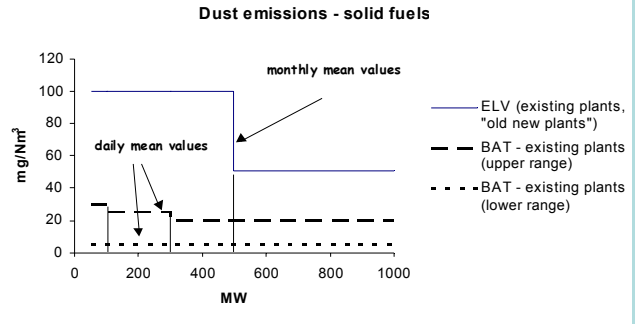
ELV (LCPD) and BAT (BREF LCP)



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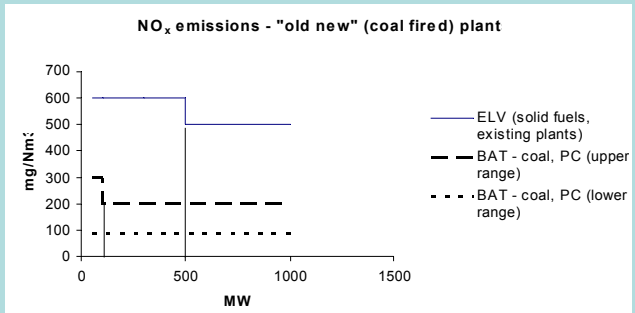
ELV (LCPD) and BAT (BREF LCP)



PC: pulverised Combustion

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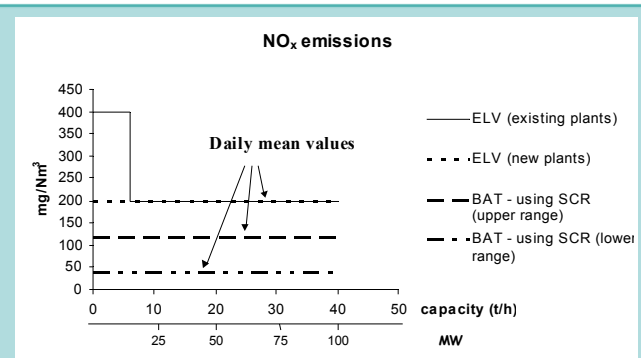
ELV (WID) and BAT (BREF WIP)



03.11.2005 slide 12

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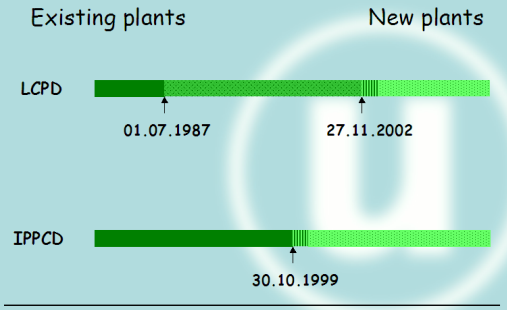
Definitions of installations



18.11.2005| slide 13

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Time Limits for Compliance

LCPD

- Existing Plants: 01.01.2008 (requirements for „old new" plants) or
- included in national reduction plan

WID

- Existing plants: 28.12.2005 (requirements for new plants)

IPPCD

- Existing plants: 30.10.2007 (BAT based permit)

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Summary

- IPPCD:
  - general framework for integrated pollution prevention
  - inherent flexibility
  - dynamic

→ BAT should be a driver for Environmental Performance

- Sectoral Directives:
  - minimum requirements
  - narrow scope:
    - selected pollutants
    - selected media
    - selected operational conditions

03.11.2005| slide 15

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The End
Thank you very much
for your attention!
Siegmund Boehmer
Integrated Plant Technologies
T: +43-(0)1-313 04/5514
F: +43-(0)1-313 04/5400
siegmund.boehmer@umweltbundesamt.at
03.11.2005| slide 16
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More efficient and simpler Monitoring and Reporting

Marianne Petitjean,
Ministry of the Walloon Region, Belgium

More efficient and simpler Monitoring and Reporting in Wallonia: REGINE – Référentiel Environnement: Gestion Intégrée de Entreprises – Environmental Referential Integrated Management of Enterprises

Introduction

Environment-related regulatory requirements for companies are complex and in continuous evolution. As these requirements are necessary to implement legislation, there is a substantial need to put into effective practice and fluid exchanges of information between companies and administrations.

Under the initiative of General Directorate of Natural Resources and Environment of the Walloon Region Ministry, Wallonia has committed itself to implement an ambitious approach on rationalisation and simplification of environment-related regulatory monitoring and reporting requirements for companies.

Recognising the importance of easing the understanding of companies and lowering the burdens and costs both for companies and the administration, Walloon Region has created an Environmental Integrated Survey and REGINE (Référentiel Environnement: Gestion INtégrée des Entreprises – Environmental Referential : Integrated Management of Entreprises).

REGINE

Until 2003, environmental data were collected from different administrative services and companies were asked to fill up a big amount of questionnaires for different regulatory environmental requirements, which resulted sometimes in redundant questions for the companies and in inconsistencies in collected data. In fact, every regulation targeted a group of companies and every company had to fill up a questionnaire by regulation and answer to overlapping questions in a different manner.

For these reasons, it was rather difficult for the authorities to validate collected data and meet reporting deadlines.

In 2003, an **environmental integrated survey** has been created which includes all pertinent environment-related reporting requirements for 300 companies.

The objective of this survey is to simplify data collection and ensure coherence between the different inventories and reports (as a result of international, European, federal and regional legislation) by collecting once per year all necessary information concerning air, water, waste, energy and environmental expenditures. The collected information in a single authentic data source is then available between different services and administrations ensuring at the same time the confidentiality of certain data.

The information is collected to face many different reporting regulatory regional, federal, European and international obligations in the required formats as well as to evaluate the effectiveness of regional environmental policies. The environmental integrated survey is personalised to the 300 operators of the activities/installations pointed out by one or several regulations **(**four international Conventions and their protocols[14], seven European Directives[15], three European Regulations[16], two European Decisions[17], one European Recommendation[18], two Walloon laws[19], one Walloon Decree[20] and several non legally binding agreements [21]).

It is not only a survey integrating a maximum of information, but also a survey which optimises the comfort for companies and the relevance of collected data due to a personalisation and pre-fill up of the questionnaire according to the company's profile and the regulatory requirements.

Since 2005, the questionnaire of the environmental integrated survey is on line. The survey on line aims at exploiting as much as possible the possibilities that the technologies of information and communication offer and represents a tool of dematerialisation as it allows to replace the paper questionnaires by electronic exchange.

REGINE (**R**éférentiel « **E**nvironnement » pour la **G**estion **IN**tégrée des **E**ntreprises) is one of the master pieces of the system. It has been conceived to enable a personalisation and a pre-fill up of

14 1992 UN Framework Convention on climate change (UNFCCC) and its Protocol, Convention on long range transboundary air pollution (CLRTAP) and their Protocols, POP's Stockholm Convention and UNECE PRTR Protocol to the Aarhus Convention.

15 2003/87/EC Directive on green house gas emission trading , IPPC Directive, 2001/80/EC Directive on large combustion plant (LCP), 2000/ 60/EC Directive (water framework Directive), 91/414/EC Directive regarding placing of plant products on the market, 76/464/EEC Directive concerning pollution caused by dangerous substances discharged into the aquatic environment, Directive 91/689/CE on dangerous wastes.

16 EC 850/2004 Regulation concerning persistent organic pollutants (POP's), 2150/2002/EC Regulation on waste statistics and E-PRTR project Regulation.

17 Commission Decision of 29/01/2004 establishing guidelines for the monitoring and reporting of greenhouse gas emissions, 2000/479/EC Decision implementing EPER.

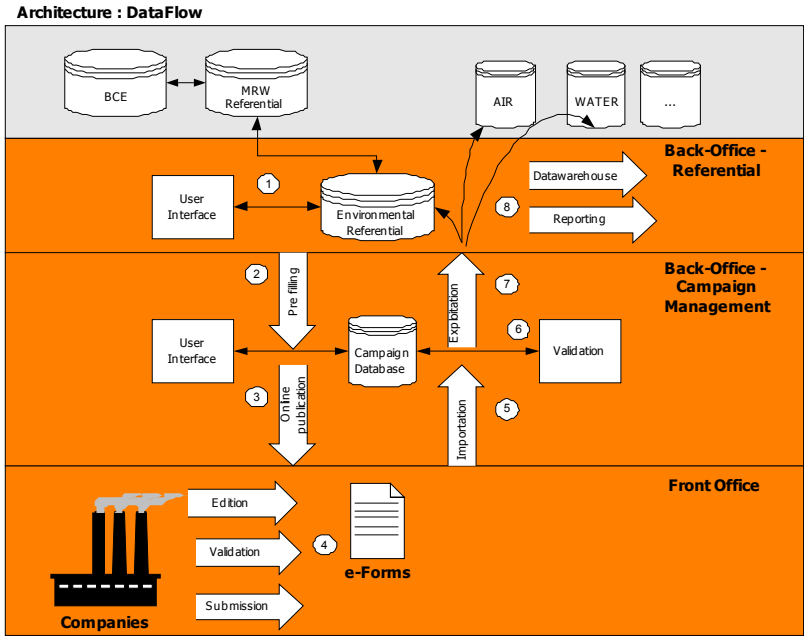
18 Commission Recommendation of 30 may 2001 on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies

19 AGW (walloon government decree) of 13-11-02 on power plant permit conditions, AGW (walloon government decree) of 9 april 1992 on dangerous waste.

20 Walloon Decree of 10 november 2004 establishing a scheme for greenhouse gas emission allowance trading .

21 OECD/Eurostat Joint Questionnaires on waste, expenditure and regional statistics.

the on-line questionnaires. It integrates several referentials for each one of the 300 companies concerned (activities, installations, products, processes, fuels, pollutants into air and water, wastes, kind of expenditure, etc…).



The environmental integrated survey is the result of a long effort undertaken by all the actors involved (5 departments of the General Directorate of Natural Resources and Environment: the environment, 4 external services of DG environment , 2 Consulting firms (ICEDD and NSI), 7 Industrial Federations (Cement, Chemistry, Metallic sector, Pulp and Paper, Food industry, Electricity, Steel industry.) and the Walloon Federation for enterprises.

Further information can be found on http://bilan.environnement.wallonie.be.

Conclusions

REGINE has allowed to consolidate overlapping regulations (ex. ET and IPPC Directives, PRTR protocol, etc…), update and anticipate regulations (ex. LCP Directive, E-PRTR Regulation…), solve contradictory issues (ex. Series of PCBs, HAPs…) and comply with reporting regulations; to concentrate efforts by targeting the most pertinent companies; to benefit from a single and centralised information and ensure coherence between collected information for different administrative services and for Wallonia as a whole (a single authentic source); to improve the relevance and the quality of collected data due to a personalisation and pre-fill up of the questionnaire according to the company's profile and the regulatory requirements; to improve the coherence of economic, social and environmental data (through the links that REGINE has established with the Enterprises Crossroads Bank); to reduce the time spent for the data encoding work; to save time and administrative burdens and costs for companies and public authorities (a single survey, personalisation, pre-filling up and IT based solutions); to optimise the comfort and understanding for companies; to respect the reporting deadlines by both, companies and public authorities; to put into practice effective and fluid exchanges of information, increasing transparency and awareness of companies about environmental obligations and improving

dialogue between companies and public authorities; to improve, highlight and reinforce cooperation between services and administrations; to replace the paper questionnaires by electronic exchange (an on-line system for digital sending of data) and create a tool of dematerialisation.

Simplification is a complex mechanism

Rationalisation is an iterative process

Simplification and Rationalisation is a common project

Marianne PETITJEAN

MRW - DGRNE – DCE

Presentation

European Initiatives (eg)

- Belgium,
- Danemark,
- Finland,
- France,
- Germany,
- Nederland,
- UK,…...

DGRNE/DCE/ DRESDEREGINE/MP05/2109

Context in Wallonia

Declaration of Walloon policy

(2004-2009)

Economic re-launching and administrative simplification

«... one of the pillars of the transversal plan "creation of activities" is to remove the administrative burdens to the start up and the development of activities via the administrative simplification."

Declaration of regional policy July 2004

DGRNE/DCE/ DRESDEREGINE/MP05/2109

REGINE

Référentiel Environnement : Gestion INtégrée des Entreprises
Referential Environment: Integrated Management of Enterprises

Objectives

- **Simplification by lowering the burdens both for companies and the administration in the field of environmental data collection and reporting**

DGRNE/DCE/ DRESDEREGINE/MP05/2109


REGINE
Référentiel Environnement : Gestion INtégrée des Entreprises
Referential Environment: Integrated Management of Enterprises
Objectives
The information is collected to face many different reporting regulatory regional, federal, European and international obligations in the required formats as well as to evaluate the effectiveness of regional environmental policies
DGRNEDCE/DRESDEREGINE-MP052109


REGINE
Référentiel Environnement : Gestion INtégrée des Entreprises
Referential Environment: Integrated Management of Enterprises
Objectives
Companies will be asked only once a year and only for relevant specific data due to a personalisation and pre-filling up of the questionnaire according to the company's profile and the regulatory requirements, will benefit from help to fill up the questionnaire and will be able to follow the historic of validated data.
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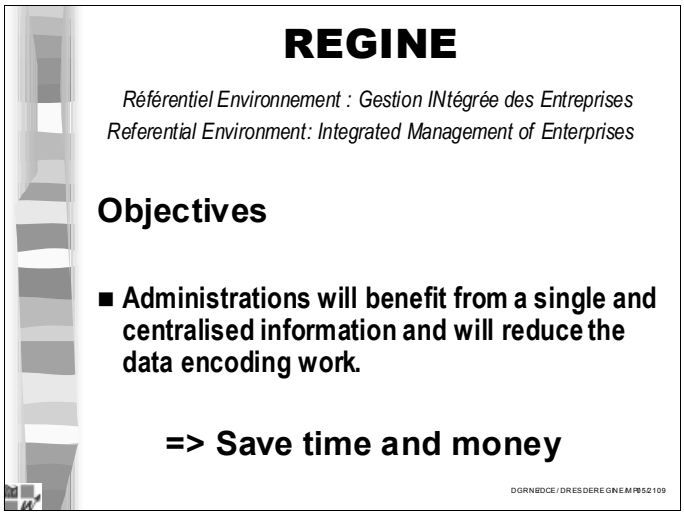
REGINE
Référentiel Environnement : Gestion INtégrée des Entreprises
Referential Environment: Integrated Management of Enterprises
Objectives
Administrations will benefit from a single and centralised information and will reduce the data encoding work.
=> Save time and money
DGRNEDCE/DRESDEREGINE-MP052109

How the integrated Survey has been built?

- Inventory and analyse of **international obligations** (ongoing and foreseen regulations)
- **Targeted companies** (establishment and validation)
- **Questionnaire** (development and consultation)

DGRNE/DCE/ DRESDEREGINE/MP05/2109

Inventory and analyse of **international obligations**

- 4 International Conventions and their protocols,
- 7 European Directives,
- 3 European Regulations,
- 2 European Decisions,
- 1 European Recommendation,
- 2 Walloon laws,
- 1 Walloon Decree
- Several non legally binding agreements.

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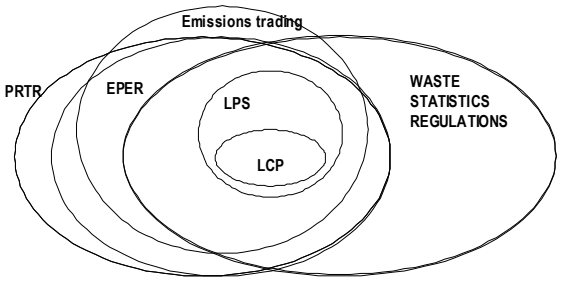
Targeted companies



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Questionnaire structure

Part	- Sub-part	Number of facilities
Identification		284 facilities
General information		284 facilities
Energy		
	– part **auto-production**	42 facilities
	– part **consumption**	263 facilities
	– part **biogas**	12 facilities
	– part **MWI**	4 facilities
	– part **co-incinerated wastes**	19 facilities
Air		
	– part **Emissions Trading**	113 facilities (127 installations)
	– part **LCP**	10 facilities
	– part **Emissions Register** 178 sites	
Water		178 sites
Waste		
	– part **manufacturing industry**	248 facilities
	– part **eco-industry**	35 facilities
Environmental expenditures		284 facilities

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Architecture of the project

- Data Configuration in a DB (REGINE : Référentiel Environnement : Gestion Intégrée des Entreprises)
- Questionnaire on-line,specification (personalisation), pre-filling up
- Data recuperation (validation, exploitation)

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Architecture should respect the following objectives

- **Principle of <u>authentic data</u> <u>sources</u>**
  - For each data, a single source is correct and contain the last version. This data is available for every application by consulting the referential
  - To avoid duplicates and asking same information to companies twice
- **<u>Integrated Exploitation</u>**
  - Data collection from different fields once
  - Integration of data collection and exploitation
- **<u>Intelligent Questionnaire</u>**
  - Data Pre-filling up
  - Questionnaire Personalisation
  - Validation Controls
  - Help for encoding
  - …

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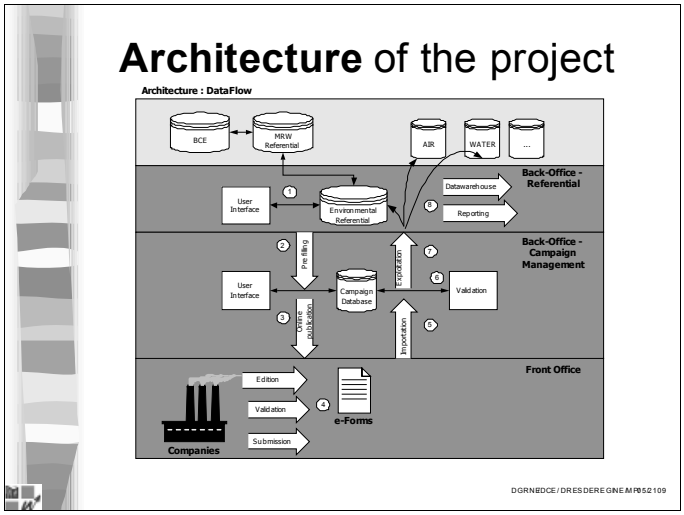
Architecture of the project
Architecture : DataFlow
BCE
MRW Referential
AIR
WATER
...
Back-Office - Referential
User Interface
Environmental Referential
Datawarehouse
Reporting
Back-Office - Campaign Management
Profiling
Execution
User Interface
Campaign Database
Validation
Update publication
Importation
Front Office
Edition
Validation
Submission
e-Forms
Companies
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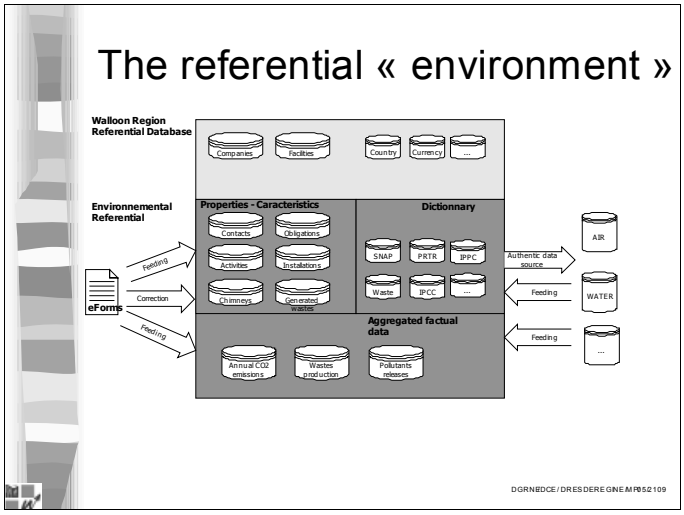
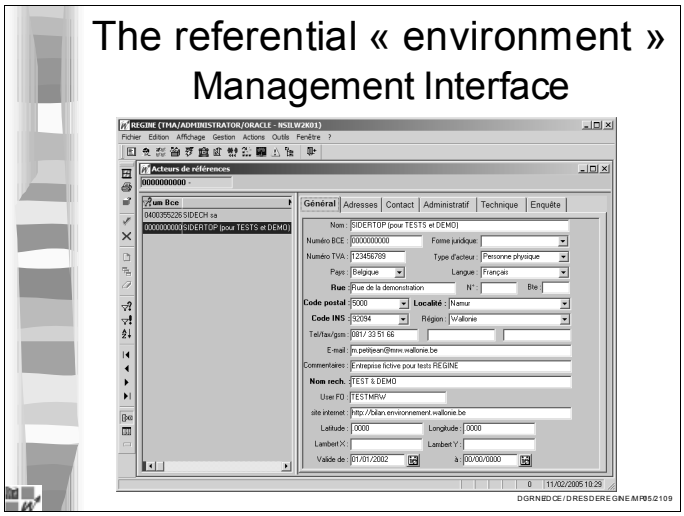
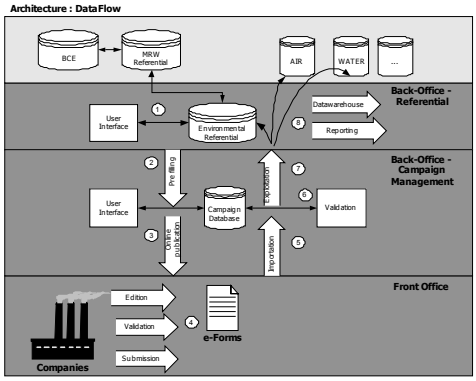

The referential « environment »
Walloon Region Referential Database
Companies
Facilities
Country
Currency
...
Environnemental Referential
Properties - Caracteristics
Dictionnary
Contacts
Obligations
Activities
Installations
Chimneys
Generated wastes
SNAP
PRTR
IPPC
Waste
IPCC
...
Feeding
Correction
eForms
Aggregated factual data
Annual CO2 emissions
Wastes production
Pollutants releases
Authentic data source
AIR
WATER
DGRNEDCE/DRESDEREGINE.MP052109


The referential « environment »
Management Interface
REGINE (TMA/ADMINISTRATOR/ORACLE - NSILW2K01)
Acteurs de références
Général
Adresses
Contact
Administratif
Technique
Enquête
DGRNEDCE/DRESDEREGINE.MP052109

Architecture of the project



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Data collection
The questionnaires

- Electronic questionnaire to fill up on line
- Safety access (integration with the « label » used for other formularies in Wallonia)
- Integrated and personalised questionnaire
- Data set up by field
- Pre-filled up
- Management of different deadlines
- Set up of common information on one referential fuels and one referential waste
- Implementation of intelligent functions
  - Values Lists, Default values, calculation functions, filling up controls, maximal values, ..

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Perspectives

In the mid-term, the "Referential environment" (single portal) will allow, through a safety access, consulting companies' data (environmental permit, releases reports, …)

The single identification of companies from BCE (Banque carrefourdes entreprises) of Belgium will be used for the referential environment.

⇒ Coherence of

economic, social and environmentaldata

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Partners

- Walloon Region Ministry : competent services (environment, energy, informatics, statistics,…)
- ICEDD : content of the integrated environmental survey
- NSI : IT solution: questionnaire and campaign management
- The operators of targeted companies
- The Enterprises Walloon Union (UWE)

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Conclusions

The applied approach has involved all concerned parties, which has allowed:

- Improving, highlighting and reinforcing cooperation between services and administrations
- Increasing transparency and improving dialogue between companies and public authorities

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Conclusions

The questionnaire and the overall project have been built in view of:

- Consolidating overlapping regulations (ex. ET and IPPC Directives, PRTR protocol, etc…)
- Updating and anticipating regulations (ex. LCP Directive, E-PRTR Regulation…).
- Solving contradictory issues (ex. Series of PCBs, HAPs…)
- Concentrating efforts by targeting the most pertinent companies
- Saving time for companies and public authorities (personalisation, pre-filling up and IT based solutions)

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Conclusions

The integrated and single survey has allowed:

- Ensuring coherence between collected information for different administrative services and for Wallonia as a whole
- Improving quality of collected data
- Reduce the administrative burden for companies

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Conclusions

Simplification is a complex mechanism

Rationalisation is an iterative process

Simplification and Rationalisation is a common project

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REGINE

Référentiel Environnement : Gestion INtégrée des Entreprises
Referential Environment: Integrated Management of Enterprises

Demonstration on
http://bilan.environnement.wallonie.be

DGRNEDCE / DRESDEREGINE MP052109

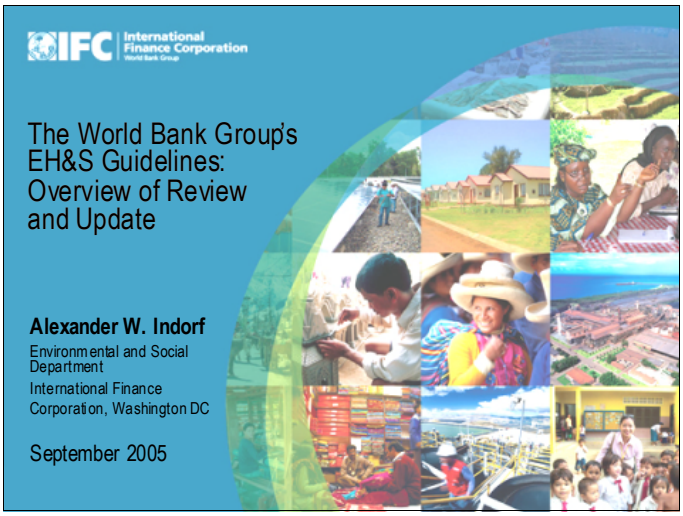
Marianne PETITJEAN
MRW - DGRNE – DCE
www.environnement.wallonie.be

THANK YOU FOR YOUR ATTENTION

The Role of the IPPC Directive for the Development of International Environmental Standards

The international impact of the IPPC Directive – Benefits for the environment and industry from the perspective of the World Bank

Alexander W. Indorf,
International Finance Corporation



IFC's Mission

To promote sustainable private sector investment in developing countries, helping to reduce poverty and improve people's lives

IFC International Finance Corporation

IFC's Products and Services

To assist private enterprise in developing countries, IFC:

- Provides loans and equity for viable projects
- Mobilizes capital from other sources
- Provides technical assistance and advisory services

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IFC Investments

- Finance and insurance
- Utilities
- Oil, gas, and mining
- Collective investment vehicles
- Transportation and warehousing
- Information
- Industrial and consumer products
- Food and beverages
- Nonmetallic mineral product manufacturing
- Primary metals
- Chemicals
- Pulp and paper
- Wholesale and retail trade
- Accommodation and tourism
- Textiles, apparel, and leather
- Agriculture and forestry
- Health care
- Construction and real estate
- Plastics and rubber
- Education services
- Professional, scientific, and technical services

IFC International Finance Corporation

IFC Social & Environmental Standards

- Building blocks for IFC approach to sustainability
  - IFC Policy Performance Standards
  - Disclosure Policy
  - EHS Guidelines
- Together these provide a framework to:
  - Manage project risks
  - Improve performance
  - Maximize development impact

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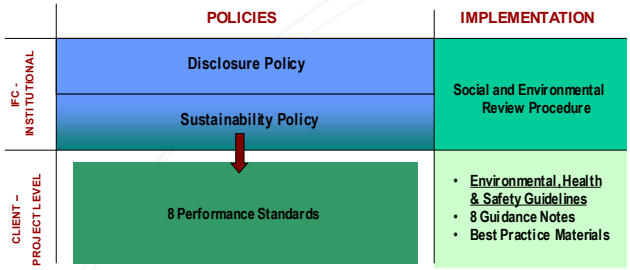
Policy Framework



EH&S Guidelines

- 67+ Industry Sector Guidelines
  - 42 in Part III the Pollution Prevention and Abatement Handbook (1998 PPAH)
  - 25 in IFC Web site (1993 to 2004)
- + Several Cross-cutting Guidelines

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Industry Sectors – Classification

- Agribusiness and Food Production
- Construction Materials
- Construction / Real Estate
- Infrastructure – Thermal Power
- Infrastructure – Hydroelectric Power
- Infrastructure – Transportation and Municipal
- Manufacturing – General, Plastics, and Rubber
- Mining
- Oil & Gas – Upstream
- Oil & Gas – Downstream / Petrochemical & Other Chemical
- Forestry and Wood Products including Pulp / Paper
- Textiles
- Telecommunications

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Cross-cutting Guidelines - Examples

- General Principles of Pollution Control (applicable to Lead, Mercury, Cadmium, Particulates, NOx, etc)
- Hazardous Materials Management
- Wastewater Reuse
- Occupational Health and Safety
- Life and Fire Safety

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Guidelines Publications - Chronology

1988	WB Environmental and Occupational H&S Guidelines
1998	42 Industry sectors and 1 general environmental (PPAH) 19 Industry sectors– Environmental pollutants only. No H&S.
2000	1 Industry sector (O&G, Offshore)– w/H&S
2001	1 Industry sector (Tourism & Hospitality) 1 Industry sector (Office Buildings)
2002	1 Cross cutting guideline (Life & Fire Safety)
2003	2 Cross cutting guidelines (Hazardous Materials Management and Occupational Health and Safety)
2004	1 Industry sector guideline (Precious Minerals Mining- Draft)

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Guidelines Contents – General Trends

1998 – Understanding of process/waste, waste reduction practices, technological controls, target loads, and emissions limits

1998 – Limited aspects of occupational health & safety introduced in IFC guidelines

2000 - Management Systems / Plans (ER) and Environmental and Occupational H&S Best Practices introduced

2001-02 – Introduction of Public Safety through Life & Fire Safety guidelines primarily applicable to projects with buildings open to public access

2003 – Introduction of technically more detailed, cross-cutting, themes grounded in the principles of management systems and preparation of management plans (e.g. Occupational Health and Safety, and Hazardous Materials Management)

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Objectives of the EHS Guidelines Update

- Updated information that addresses gaps on technical guidance
- Consistent with objectives and approach of Environmental Policies (currently undergoing revision)
- Greater consistency between requirements applicable to more than one industry sector
- Clearer identification of indicators and benchmarks of performance as well as Best Practice (to help track improvement and development impact)
- Not just pollution control - Better presentation of significant EH&S risks of industry sectors (+ incorporation of H&S)
- More "user friendly" (easy-to-read, concise, non-repetitive, electronic, etc)

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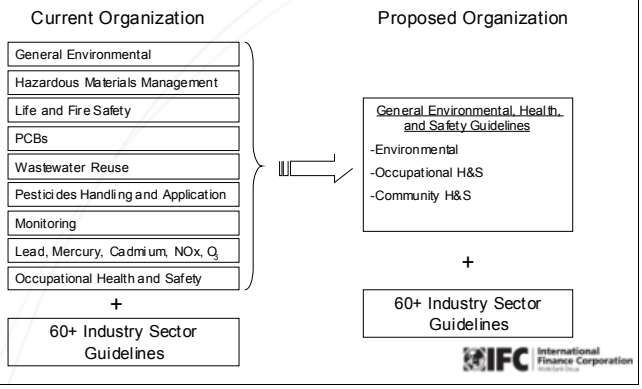
Possible changes? Reorganization



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Possible Changes? – New Topics

General EH&S Guidelines

- Project Siting and Project Design
- Resource Management and Conservation (Energy, Water, and Materials Use)
- Construction Phase Issues
- Contaminated Media (Soil, sediments, and groundwater)
- Project Decommissioning
- Emergency Preparedness and Response

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Possible Changes? – New Topics

Industry Sector Guidelines

- Emphasis on industry-specific:
  - Risks/impacts and their prevention
  - Performance indicators
    - » Emissions / effluents
    - » Input and/or output-based indicators (energy, water, waste?)
  - Integration of environmental + occupational health and safety

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How will the BREFs be incorporated into the EHS Guidelines Update?

- Invaluable sources of information on pollution control performance
  - – Result of structured technical input (TWGs)
- Specific reference on consumption and emissions benchmarks
- Included as a reference in the respective industry sector guidelines

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EHS Guidelines Update - Timeline

- Phase I — Review of Existing EHS Guidelines (On-going)
- Phase II — Technical Revisions and Prep. of Draft Guidelines (October 2005 – April 2006)
- Phase III — Draft Publication and Public Review (February - June 2006)
- Phase IV — Editorial Review and Final Publication (December 2005 - March 2006)
- Phase V — Establishment of Permanent Review / Update Mechanism (June 2006)

IFC International Finance Corporation

Contact Information

Alexander W. Indorf
Program Coordinator
International Finance Corporation, Washington DC
Tel. +202-473-1492
aindorf@ifc.org
www.ifc.org/ehsguidelinesupdate

IFC International Finance Corporation

IPPC and POPs – The Stockholm Convention and the UN-ECE Protocol on POPs

Hille Hyytiä
Finnish Environment Institute (SYKE), Finland

Abstract

The chemicals known as persistent organic pollutants (POPs) act as powerful pesticides and serve a range of industrial purposes. Some POPs are also released as unintentional by-products of combustion and industrial processes. POPs are highly toxic, bioaccumulable and persistent compounds. They are also highly volatile and travel long distances via air and water. Consequently POPs cause significant risk for health and environment.

Stockholm Convention is one the the UNEP's Conventions dealing with POPs. It came into force on 17 May 2004. The objective of the Convention is to protect human health and the environment from persistent organic pollutants. According to the Convention the Parties are, among other things, obliged to promote in some cases (for existing source) and require in others (for new sources) the use of best available techniques (BAT) and promote the application of best environment practices (BEP). When applying BAT and BEP Parties should take into consideration the general guidance on BAT and BEP adopted by the Conference of the Parties.

In order to draw up BAT and BEP-Guidelines an international Expert Group (EGB) was established in 2002. The mandate of the EGB was to develop Guidelines on Best Available Techniques (BAT) and Best Environmental Practices (BEP) in accordance with the provisions of Article 5 and Annex C of the Convention. Polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDD/PCDF), hexachlorobenzene (HCB) and polychlorinated biphenyls (PCB) are included in Annex C. According to Annex C the following industrial source categories have the potential for comparatively high formation and release of these compounds: waste incinerators, cement kilns firing hazardous waste, production of pulp using elemental chlorine or chemicals generating elemental chlorine for bleaching and some thermal processes in the metallurgical industry. In addition to these some other sources, like open burning of waste, fossil fuel-fired utility and industrial boilers etc. may also cause releases of PCDD/PCDF, HCB and PCB.

Finalized versions and draft versions of EU BAT-Reference Documents (BREFs) on Large Combustion plants, Waste Incineration, Waste Treatment, Pulp and Paper Industry, Iron and Steel Industry and Non Ferrous Metals Industry were very important and useful sources of information when developing the guidelines. Information on different techniques and good practices in order to reduce and finally stop the releases of unintentionally formed dioxins, furans, HCB and as well as PCBs, were also collected from all other available global sources of information.

The existing draft guidelines will be enhanced and finalized by the second Expert Group (EGB-II). The work should be ready by the second meeting of the Conference of the Parties. As previously, finalized BREFs will be used as one source of information in this work.

Presentation

IPPC AND POPs
-THE STOCKHOLM CONVENTION AND THE UN-ECE PROTOCOL ON POPs

Hille Hyytiä
BAT-coordinator
Finnish Environment Institute (SYKE)

SYKE

The chemicals known as persistent organic pollutants act as powerful pesticides and serve a range of industrial purposes. Some POPs are also released as unintended by-products of combustion and industrial processes. While the risk level varies from POP to POP, by definition all of these chemicals share four properties:

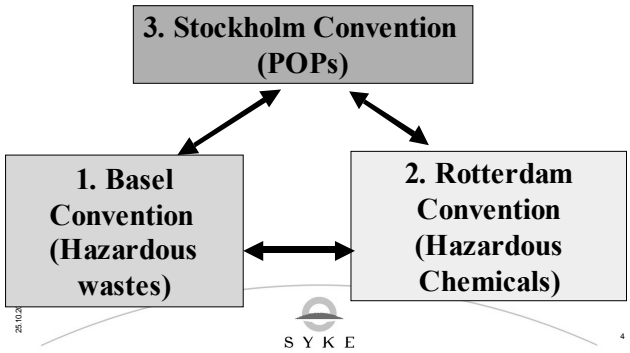
SYKE

1) They are highly toxic;
2) they are persistent, lasting for years or even decades before degrading into less dangerous forms;
3) they evaporate and travel long distances through the air and through water; and
4) they accumulate in fatty tissue.

As a summary, POPs's emissions cause significant risk for health and environment.

SYKE

Three Global "POPs" Conventions under UNEP's



Stockholm Convention on POPs

- Negotiations facilitated by UNEP
- Legally binding instrument to take action against certain persistent organic pollutants (POPs); starting off the 12 most dangerous POPs
- Conference of Plenipotentiaries adopted the text of the Convention on 22 May 2001 in Stockholm;
- The Convention came into force on 17 May 2004 (automatically 90 days after 50th ratification);

25.10.2005 SYKE 5

BAT and BEP in Article 5 and Annex C of the Convention

- Under the Stockholm Convention on POPs, parties are obligated to promote in some cases (existing sources) and require in others (for new sources) the use of best available techniques (BAT) and promote the application of best environmental practices (BEP).

25.10.2005 SYKE 6

BAT and BEP in Article 5 and Annex C of the Convention (cont'd)

- Article 5 (d): When applying BAT and BEP, Parties should take into consideration the general guidance on prevention and release reduction measures in that Annex and the Guidance on BAT and BEP to be adopted by the Conference of the Parties

25.10.2005 SYKE 7

Expert Group on BAT and BEP

- In June 2002, the INC-6 of the Stockholm Convention established an Expert Group;
- The Expert Group consisted of 36 members:

Developing countries	15
Countries with economies in transition	3
Developed countries	18

* From EU-Member States: Germany, France, Sweden, Italy, Austria, UK, Denmark, Finland

- In addition observers from intergovernmental and non-governmental organizations (environmental organizations and industrial non-governmental organizations)

25.10.2005 SYKE 8

Expert Group on BAT and BEP (cont'd)

- Mandate of the Expert Group: to develop Guidelines on Best Available Techniques (BAT) and Best Environmental Practices (BEP) in relation to the provisions of Article 5 and Annex C of the Stockholm Convention on Persistent Organic Pollutants;

25.10.2005 SYKE 9

12 Stockholm POPs

Stockholm POPs / Annex C

Chemical	Pesticide	Industrial Chemical	By-product
Aldrin	+		
Chlordane	+		
DDT	+		
Dieldrin	+		
Endrin	+		
Heptachlor	+		
Mirex	+		
Toxaphene	+		
Hexachlorobenzene	+	+	+
PCB		+	+
PCDD			+
PCDF			+

SYKE

Annex C of the Convention

- Annex C
  - Part II Source categories (have potential for high releases): among others incinerators (municipal, hazardous medical…), cement kilns (hazardous waste), pulp and paper mills (using elemental chlorine), thermal metallurgical plants (secondary copper, sinter plants…)
- Annex C
  - Part III Source categories (may also cause releases): among others open burning of waste, residential combustion, fossil utility and industrial boilers…

25.10.2005

SYKE

11

Use of EU-BAT-reference documents (BREFs)

- The very first draft "model" of the guidance was created by the EU-group
- The following BREFs were studied:
  - Large combustion plants (draft)
  - Waste incineration (draft)
  - Waste treatment (draft)
  - Pulp and paper industry
  - Iron and steel industry
  - Non ferrous metals industries
- Information was collected also from other available global sources

25.10.2005

SYKE

12

Use of BREFs (cont'd)

- Information dealing with POPs was scarce (lack of valid data of emissions?), but the BREFs provided useful model for the guidelines
- General information on processes and purification techniques of the source categories was very useful and it was easy to use for the BAT and BEP- guidelines.

25.10.2005 SYKE 13

Work in the future

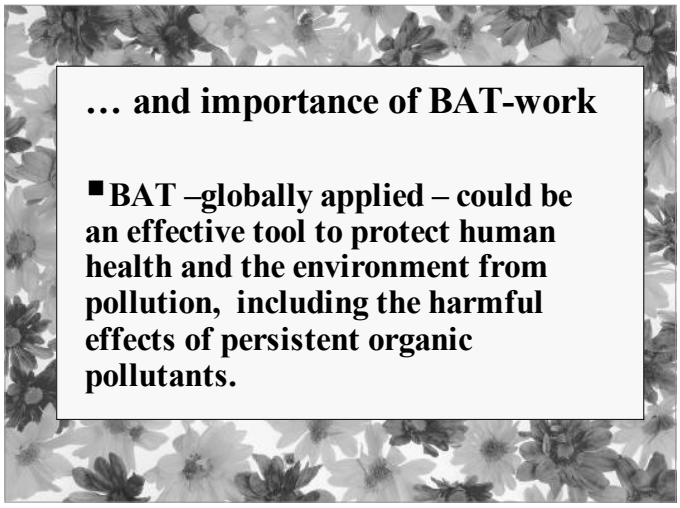
- Draft guidelines document on BAT and BEP was treated by COP-1(Conference of the Parties)
- A new Expert Group on BAT/BEP (EGB-II) was established by the COP-1. The task of the EBG-II is to enhance and finalize the draft guidelines – the finalized BREFs being one source of information in this work.

25.10.2005 SYKE 14

Importance of the BAT and BEP guidelines…

- Guidelines are an important source of information including all the available information on BAT in the sectors of industry concerned for all countries (especially for developing countries) when they are developing action and implementation plans required by the Stockholm Convention

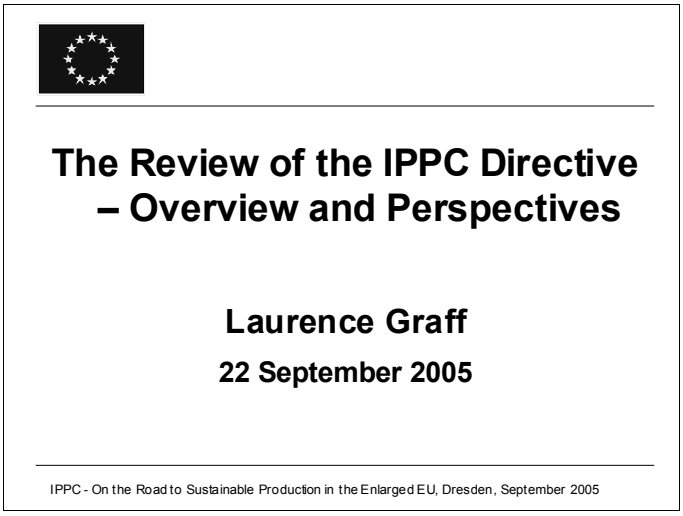
25.10.2005 SYKE 15

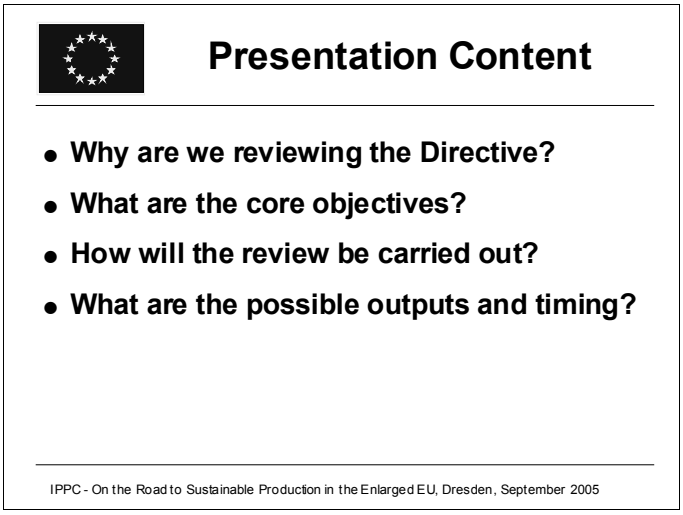

… and importance of BAT-work
BAT –globally applied – could be an effective tool to protect human health and the environment from pollution, including the harmful effects of persistent organic pollutants.

The future Development of the IPPC Directive – Where do we want to stay in ten years?

The Review of the IPPC Directive – Overview and Perspectives

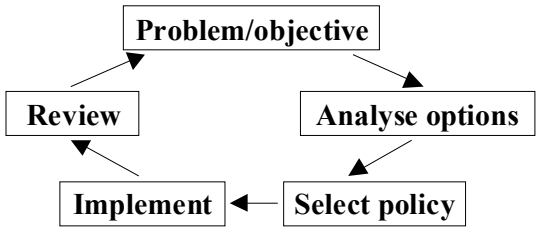
Laurence Graff,
European Commission – DG Environment





Why a Review?

- A natural part of an effective policy cycle and good regulatory governance



IPPC - On the Road to Sustainable Production in the Enlarged EU, Dresden, September 2005

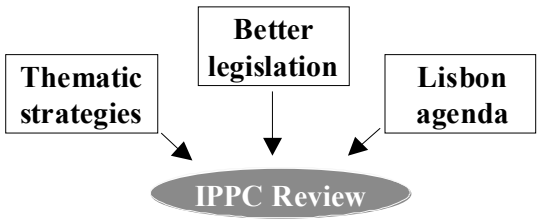
Why a Review?

2003 Communication

- Positive reaction and general call for regulatory stability
- But room for improvement: coverage, interpretation, legislative interactions
- Some call for additional scope for emission trading

IPPC - On the Road to Sustainable Production in the Enlarged EU, Dresden, September 2005

Why a Review?



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Core Objectives?

An ambitious review while not altering the fundamental principles, objectives and ambition of the present Directive (high level of environmental protection, integrated approach, BAT, permitting …)

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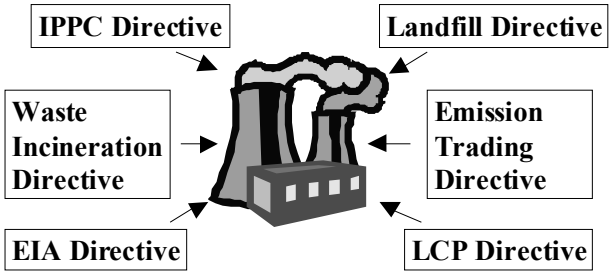
Core Objectives?

- **Examine scope for legislative streamlining**



IPPC - On the Road to Sustainable Production in the Enlarged EU, Dresden, September 2005

Core Objectives?

- **Develop and implement outcomes of the Thematic Strategies**

Waste	**Clarification/extension of IPPC application to waste management?**
Soil	**Soil contamination monitoring?** **Enhance rehabilitation obligations?**
Air	**Intensive cattle rearing?** **20-50 MW combustion installations?**

IPPC - On the Road to Sustainable Production in the Enlarged EU, Dresden, September 2005

Core Objectives?

- Encourage industry to go beyond regulatory compliance:
  - Incentives for innovation and enhanced deployment of environmental technologies
  - Economic instruments (trading, taxes ...)
  - Environmental management systems
  - Administrative relief
  - Voluntary schemes

IPPC - On the Road to Sustainable Production in the Enlarged EU, Dresden, September 2005

Core Objectives?

- "Technical" amendments in the light of experience:
  - Permit review and monitoring provisions
  - Information exchange
  - Clarification of scope, definitions, etc.

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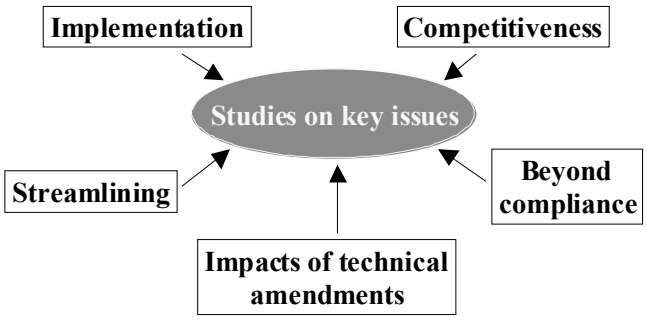
How?



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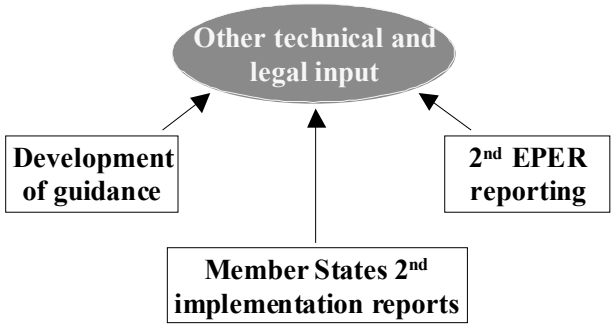
How?



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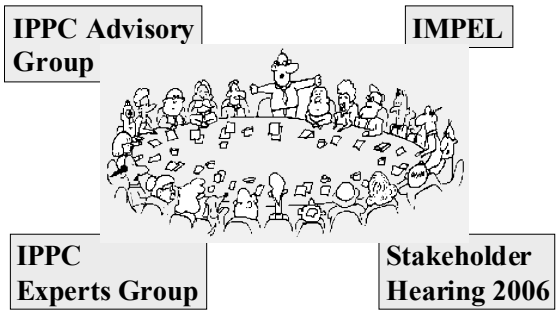
How?



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Possible Outputs, Timing?

- Conclusion of review in 2007 with long-term vision on industrial emissions control
- Expected accompanying legislative proposal based on an impact assessment
  - Unlikely to come into effect until ~ 2012 at earliest

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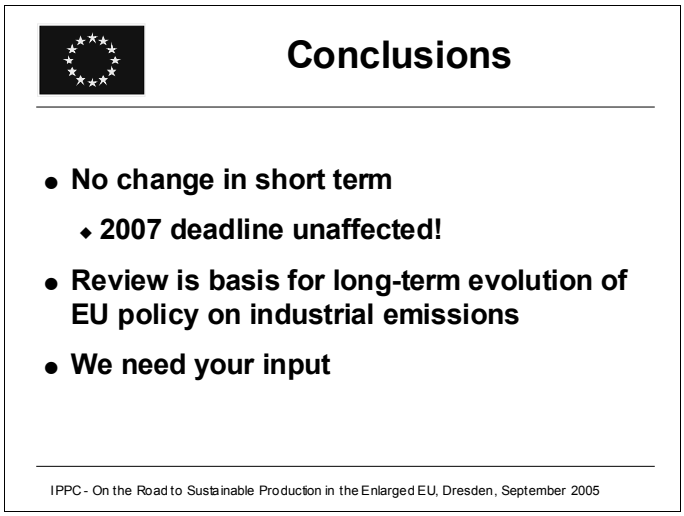

Conclusions
No change in short term
2007 deadline unaffected!
Review is basis for long-term evolution of EU policy on industrial emissions
We need your input
IPPC - On the Road to Sustainable Production in the Enlarged EU, Dresden, September 2005

A perspective on the future development of the IPPC Directive

Malgorzata Typko,
Ministry of Environment, Poland

Abstract

Poland has had a long tradition of regulating the industrial pollution by single media permits dated since the 70's of the previous century. In 1999 we began the work on transposition of integrated approach (IPPC Directive) into the Polish legislation. The Polish IPPC legislation was published in 2001 and entered into force in 2002. Full implementation of the IPPC directive is required by 30.10.2007 (except for some specific installations mentioned in the Accession Treaty, for which the deadline for achieving full compliance with BAT is 31.12.2010). It means the deadline is the same as for "old" Member States, even though we have started the process of implementation a few years later (taking into consideration that IPPC directive was published in 1996, the beginning of the IPPC history in Poland is 6 years later).

Before talking about the future it is worth to remind the aims of the IPPC Directive. It has changed the way of thinking on environmental protection – *pollution prevention* got the priority. Environment started to be treated as a whole. We cannot forget about the important economic aims which where: avoiding and eliminating *eco-dumping* and assuring equal chances at the common European market for the industry.

Two years before the day of the final implementation of the directive it is still too early to assess the effectiveness of the IPPC. Also thinking of developing new approaches is premature. What is needed and what can be done now is improvement and clarification: assuring common understanding of the IPPC Directive within the EU (terms, definitions – including the crucial definition *installation*, Annex 1, ...) and coherence with other sectoral directives (LCP, VOC, etc.).

Even if it is too early to assess the effectiveness it is already possible to define some doubts and threats which occurs while thinking of the IPPC. We cannot forget that even the best European law effects only the EU Member States. That may cause migration of *"dirty technologies*" (or "non-BAT technologies") to non-EU countries where IPPC requirements are not binding – the global impact on environment may be even worse. IPPC Directive and its implementation schedule don't take into consideration differences between economies of different EU countries, especially between "old" and "new" MS – developed in different circumstances. The time for necessary changes in those countries is needed. Another important issue is the role of BAT references documents – BREFs development should not lead us towards introduction of so called "international BAT standards". That might lead to the end of the innovation process (no reasons for improvement). The directive doesn't make any difference between small and large installations (for example for chemical sector) which means that equal rules and requirements apply to all of them. The question arises shall small and medium-size installations be treated in the same manner as large-scale ones – their impact on environment is incomparable.

After three years of implementation of IPPC in Poland we can formulate some observations and expectations. For sure the strong point of the IPPC Directive is flexibility. Taking into consideration the variety of aspects that have to be taken into account while assessing the permit conditions flexibility is a need. For the same reasons BAT cannot be treated as a standard (in the full meaning of this word) strictly described by numbers and the same for all the EU installations - as it has take into consideration such aspects as among others: technical characteristics of the installation, its geographical location and local environmental conditions. BREFs play a very important role in the process and shall be references for evaluation of “state of art” and “driving forces” for modernisation and innovation in industry. Obvious factor for future development of BAT concepts shall be also Life Cycle Analyse – we should focus not only on the installation as such but also on products and their impact on environment (*from the cradle to the grave* or even *from the cradle to the cradle*). There are not direct linking between IPPC and EMS, the linkage should be closer – certified Environmental Management Systems might even - to some extend - replace (or become a part of) IPPC permit for small and medium enterprises, where good management is the most important parameter of BAT. It seems also that in the future we should focus rather on benchmarking (indicators of emissions per product) instead of ELVs – as this allows to compare different techniques/technologies and their impact on environment.

To conclude: introducing IPPC – integrated approach, BAT concept, flexibility etc. was a kind of revolution in the way of thinking of regulating industrial installations. Now we should focus on improvement of the details of the system, maybe simplification (where possible), linkage and coherence with other instruments than expect any major changes. We all need stable rules and stability of the legislation.

Presentation

On the Road to Sustainable Production in the Enlarged EU - Integrated Pollution Prevention and Control (IPPC)

20 - 22 September 2005, Dresden - Germany

A perspective on the future development of the IPPC Directive

Małgorzata Typko
Ministry of the Environment
Poland

1

Background - Poland

- Single media permits (since the 70's)
- 1999 – beginning of the transposition of integrated approach into Polish legislation
- 2002 - IPPC legislation enters into force
- 2004 – Poland - EU Member State
- 2007 – full implementation of the IPPC (with some exceptions-2010)

20-22 September 2005, Dresden 2

Aims of the IPPC Directive

- Changing the way of thinking on environmental protection – *pollution prevention* gets the priority
- Environment seen as a whole
- Avoiding and eliminating *eco-dumping*
- Equal chances at the common market

20-22 September 2005, Dresden 3

The experiences so far

- Too early to assess the effectiveness of the IPPC
- What is needed now: common understanding of the IPPC Directive (terms, definitions, Annex 1, ...)

Doubts and threats

- Migration of „dirty technologies" to non-EU countries – global impact may be even worse,
- Differences between economies of different EU countries, especially between „old" and „new" MS – developed in different circumstances. The time for necessary changes is needed.

Doubts and threats

- The role of BREFs – BREFs development should not lead us towards introduction of „international BAT standards"
- Equal rules and requirements - small and medium-size installations may not be treated in the same manner as large-scale ones

Expectations

- Flexibility is a great need;
- BAT - cannot be treated as a standard;
- BREFs – references for evaluation of „state of art" and „driving forces" for modernisation and innovation;

Expectations

- Life Cycle Analyse – obvious factor for future development of BAT concepts,
- More direct linking of IPPC and EMS – certified Environmental Management Systems might - to some extend - replace (or become a part of) IPPC permit for SMEs
- ELVs *versus* benchmarking (indicators of emissions per product)

Thank you for your attention

Małgorzata Typko
malgorzata.typko@mos.gov.pl
www.mos.gov.pl

Ministerstwo Środowiska

The future development of the IPPC Directive – Expectations and Prerequisites

Dr. Andrew Farmer
Institute for European Environmental Policy

Abstract

Introduction

The IPPC Directive has proven to be a major driver of industrial environmental regulation across the EU. It has resulted in extensive efforts by regulators, industry and others to understand its requirements (e.g. BAT) and how these are practically to be implemented.

IPPC arose from debates in the late 1980s and 1990s and it is now nine years since its adoption in 1996. Our understanding of the impact of industry on the environment, the impact of regulation on industry and the role of different types of instruments have all developed since that time. EU (and Member State) regulation of industry has also grown, not only with the adoption of sectoral Directives (e.g. on solvent emissions), but also with those aimed at environmental quality which industry can affect (e.g. on air quality). The EU has also since adoption of the Directive enlarged to include ten new Member States with very different challenges for industrial regulation. IPPC is also operating in the context of wider policy developments, such as that on 'better regulation'. There is, therefore, debate over where industrial environmental regulation should progress, which centres on the future direction of IPPC.

It is also important to note that discussion of what to do 'after IPPC' has, of course, been taking place for a number of years. For example, there was concern over the possible environmental impacts of smaller installations which led to debate over a possible 'mini-IPPC' Directive. This was eventually addressed in the second Commission amendment to the, then, proposed water framework Directive.

This short paper, therefore, seeks to outline some of the issues that surround the future debate on IPPC and related issues and where these might lead.

Prerequisites of IPPC outcomes

In implementing the Directive it is important to stress the outcomes that are expected from it. These include:

- That IPPC should deliver strong environmental outcomes. The aim of the Directive is a high level of protection of the environment as a whole and the focus on current implementation and future development must retain this as its key focus.

- There is a need to deliver stability for business operation – industry needs to have confidence that investments made to meet the objectives of the Directive are not repeatedly overtaken by new obligations.
- IPPC should also contribute to the operation of the single market. It is important to note that IPPC does not deliver a 'level playing field' due to the flexibility inherent in its implementation, however it does bring the conditions of business operation closer together across the Union. In looking to the future, therefore, single market issues need to be considered.
- It is also important that IPPC is delivered through efficient administration, without unnecessary costs both to the public and private sector. Future developments must examine such regulatory effects.

In seeking to ensure these outcomes are achieved it is essential that the information is available upon which to assess progress. Future development should be based on evidence rather than anecdote.

Aiming for flexibility or harmonisation

IPPC has the potential for significant flexibility in its implementation. Issues such as the periods for permit reviews, inspection, etc, are not detailed in the Directive and Member State authorities have freedom in these areas, although such actions must ensure that the 'bottom line' is met, such as compliance with permit conditions. However, it is also important to note that much divergence of approach between the Member States stems from divergence of interpretation of the Directive. Some of this reflects the administrative and legal traditions of the individual country, while others are due to the lack of clarity in the Directive. The ENAP project, for example, identified a variety of interpretations of 'installation' across the Member States and, therefore, the scope of IPPC permits. While many Member States appreciate such flexibility, it should be noted that the interpretations have not been tested by the ECJ.

The Directive specifically allows for divergence as determinations of BAT and the translation into permit conditions take account of cost issues and local environmental concerns. However, it remains unclear how far these issues have (and still will) lead to actual divergence and research is needed into this. It is also important to note that further developments on these issues are in the pipeline. For example, the programme of measures required in River Basin Management Plans under the 2000 water framework Directive will only be required to be implemented after the October 2007 deadline for existing installations under IPPC. Whether these will require review of any IPPC permit conditions is yet to become apparent. Similarly, if new obligations arise from the Thematic Strategies of the 6EAP, then review of permit conditions may also be required.

Divergence could have consequences either for environmental protection or for the competitiveness of business between Member States. However, while such concerns have been expressed, detailed information is lacking on whether (and where and by how much) such effects have or will occur. This is, therefore, also an issue that requires further research.

One response to the expression of divergence is the seek a harmonisation of approach across

the Union, for example the adoption of EU-wide emission limit values, such as seen in the sectoral Directives on large combustion plants or waste incineration (although these act as minimum conditions and do not remove the obligation to determine BAT). The importance of this approach can be that of a safety net. For example, full implementation of IPPC and the national emission ceilings Directive would suggest that the large combustion plant Directive is superfluous. However, the adoption of further sectoral Directives as 'safety nets' would suggest that there is a lack of confidence in the implementation of IPPC. Thus the current (and future post-2007) assessment of compliance will be an important signal for the future of such Community-wide sectoral Directives.

Divergence also occurs through the regulatory environment that surrounds IPPC. Most Member States have their own national obligations imposed on industry regulated by IPPC, including the use of different types of measures (for example economic instruments). An important consideration, therefore, is that if IPPC is seen partially to deliver industrial environmental goals then there are alternative options either of expanding the scope of IPPC or of ensuring that Member States have the freedom to achieve the necessary environmental objectives through their own regulation. This should form an important part of the analysis to be undertaken within the Commission's current review of IPPC.

The need for integration and coherence of EU law

There is clearly a need for greater clarity of the requirements of the IPPC Directive and of coherence with other relevant EU laws. The nature of these issues has been examined in different contexts (for example in IMPEL and the ENAP project) and DG Environment, in its review of IPPC, has one project examining this. It is, therefore, to be expected that greater clarity and consistency will be achieved. This would require both amendment to IPPC (and other EU laws) and, potentially, guidance (possibly a Communication) from the Commission examining the interaction between legislation.

EU law, however, is always developing. Therefore, the issue of the interaction of IPPC with such law will be an ongoing issue. Environmental legislation has taken on more complex issues and with the need to address issues in 25 (and more) Member States covering ever more diverse contexts, has resulted in flexible approaches. This trend may continue, which presents challenges for both legislators and regulators in ensuring adequate coherence.

There is also concern over the how far the EU will be prepared to take forward a strong legislative agenda for environmental protection in the immediate future. There is support in some quarters for deregulation (as opposed to better regulation, *sensu strictu*). On the other hand the forthcoming Thematic Strategies will establish a new legislative programme (although probably less extensive than some would wish). However, there is certainly a feeling from some that significant additional new law is unlikely in the short term and, therefore, it is unlikely that expanding industrial environmental regulation through new laws, or expanding IPPC, is unlikely.

Hurdles for future progress

There will be hurdles in changing the scope of the IPPC Directive, if this were seen as desirable by some. These include:

- The complexity of IPPC and the time it is taking to implement have required major efforts by regulators and industry alike. Some, therefore, do not wish to 'rock the boat' and want to see stability in the regulatory regime.
- There is also a question of how well we understand the problems that are highlighted. Are these isolated cases or widespread? This would be resolved through detailed assessment of implementation and its consequences, but this will take significant time and resources.
- There are also fundamental differences between those who would support greater standardisation and those that support flexibility or diversity as a response to tackling any issues that arise. This reflects current debate in other areas of EU environmental law and even that of the debate over the future of the EU itself. It also reflects older debates on EU environmental law, i.e. are we seeking to ensure that the environment across the EU meets some minimum standard or are we seeking that those affecting the environment operate to the same minimum standard?
- Finally, there is also likely to be opposition from some business sectors from significant expansion of IPPC.

Conclusions

At a minimum it is likely that the IPPC Directive will be amended to overcome some of the immediate deficiencies (clarity, coherence, etc) that have been identified. However, major changes are less likely. The Commission has stated, in undertaking its review, that the fundamental principles of the Directive will not be altered, for example.

The critical question to answer is whether we view IPPC as *the* delivery instrument for industrial environmental regulation or *a* delivery instrument? Thus, in response to environmental issues not covered by the Directive, the former would imply that the Directive should be expanded to address these, but the latter could mean that we might need to develop other instruments (sectoral Directives, economic instruments, etc) at EU and/or Member State level and ensure that IPPC allows for this.

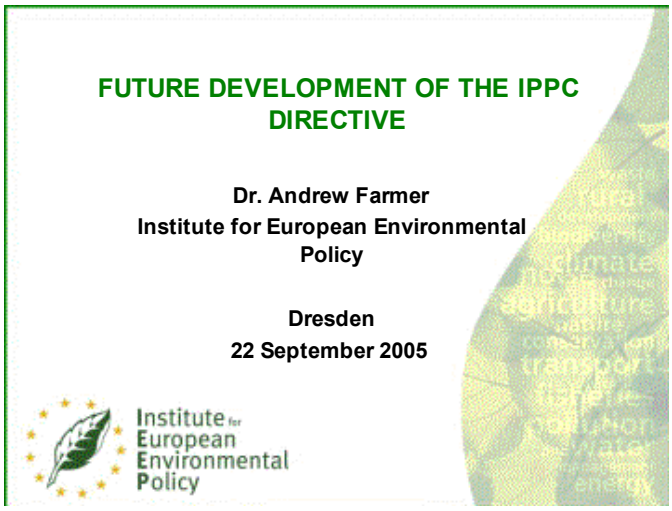
The main focus for the future will be implementation. There will be arguments over individual BAT determinations, emission limit values, permit revisions, etc. The past experience of compliance of EU environmental law by the Member States suggests that compliance gaps will remain once IPPC has initially been implemented. The complexity of the problems will require extensive work by the Commission adequately to analyse this.

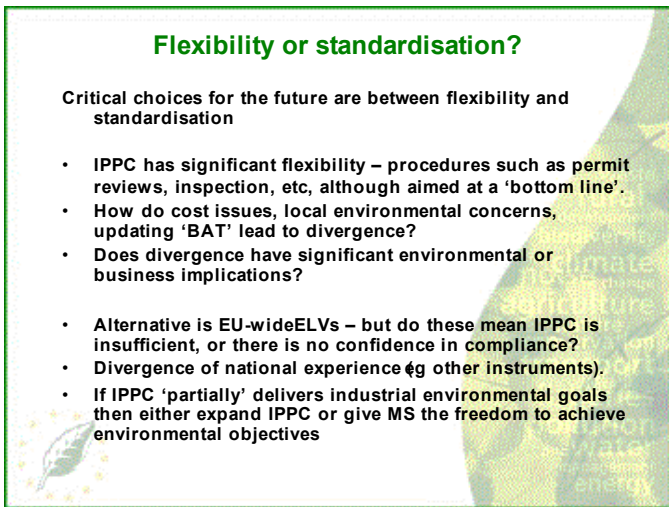
It is, therefore, important that the current review of the Directive is widely supported and it is critical that the Commission has the necessary resources and political support in assessing compliance and its consequences.

Dr. Andrew M. Farmer

Senior Fellow
Institute for European Environmental Policy
28 Queen Anne's Gate
London SW1H 9AB
United Kingdom

Presentation





Integration of EU law

- Need for future clarification of existing law, including IPPC, and consistency between laws – being addressed by DG Env
- Future law – do 25 MS and more complex issues require more flexible approaches (eg WFD)?

- IPPC needs 'improvements' – eg clarification
- Need more information (eg a 'Communication') on how laws integrate, eg IPPC delivers objectives of other Directives

Hurdles

- IPPC is complex and is taking time to implement – so many do not want to 'rock the boat'
- Do we understand the problems, or are they theoretical (how quickly can DG Env assess compliance, etc?)?
- Significant analysis needed on environmental outcomes (eg by EEA) including on what remains unresolved – so environmental needs drive legal revision
- Fundamental differences between support for standardisation and diversity – reflects other env law and wider 'future of EU' debate
- Likely to be opposition to 'extension' of IPPC

Conclusion

- Minor changes are possible to iron out problems

- Do we view IPPC as *the* delivery instrument or *a* delivery instrument? If the former, then expansion (eg Annex I) is likely, if the latter, then we need to address role of other instruments, including at MS level.

- In future IPPC is likely to be clearer. Unless positions alter, fundamental change is unlikely. Main focus for the future is implementation – arguments over BAT, ELVs, permit revisions, etc. The history of MS compliance of EU law suggests much work for DG Env.