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Recommendations for organisation and operation of the BAT/cleaner technologies centres

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Summary

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LIST OF ABBREVIATIONS

BAT – Best Available Techniques

BREF – BAT Reference document

EECCA - Eastern Europe, Caucasus and Central Asia

EFTA – European Free Trade Association

EIPPCB - European IPPC Bureau

ENP - European Neighbourhood Policy

EU – European Union

GBR – General Binding Rule

IEF – Information Exchange Forum

IPPC – Integrated Pollution Prevention and Control

MoA – Ministry of Agriculture

MoE – Ministry of Environment

MoI – Ministry of Industry

MS – EU Member States

NGO – Nongovernmental Organisation

NTWG – National Technical Working Group

OECD – Organisation for Economic Cooperation and Development

R&D – Research and Development

TWG – Technical Working group

1. BACKGROUND

This report is prepared in the frame of Air Quality Governance project, Component 2 - *Industry / IPPC*, Task 2.2 *Support towards the implementation of BAT and best practices*, Subtask 2.2.2.2 *Recommendations for organization and operation of the BAT/cleaner technologies centres*.

The aim of this report is the recommendations for the establishment and operation of BAT centres in countries participating in the project (Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova, the Russian Federation and Ukraine).

The report focuses on:

- Providing a review of the principle requirements and approaches to the establishment of the BAT centres in the EU and non-EU countries
- Giving the outline of the EU requirements to the development of an operational methodology of the BAT centre
- Developing the recommendations for the elaboration of the establishment and operation of the BAT centres in the project countries, in particular: on the organizational structure, procedure, principles and methods of its functioning, as well as proposals on financing sources of the BAT centre.

The information presented in this report is based on:

- EU legislation and guidance related to information exchange on BAT
- The experience with the implementation of the IPPC Directive in the Czech Republic, the United Kingdom and several new EU member states,
- The experience with establishing the Integrated Prevention Agency as a support body for the BAT information exchange in the Czech Republic, participation on the workshop IPPC and Permitting carried out in Kiev in April 2012 in the frame of this project.

2. PRINCIPLE REQUIREMENTS FOR ESTABLISHING A BAT CENTRE

This chapter provides the overview of the European key requirements for BAT information exchange and its institutional set up – the BAT centres. There are no direct requirements for BAT centre establishment outside EU thus the incentives for BAT information exchange and for operating Cleaner production centres are presented in the second subchapter. The third subchapter provides overview of the main functions of a BAT centre based on the presented requirements and experience with the EU BAT information exchange.

2.1. EUROPEAN REQUIREMENTS AND INCENTIVES FOR BAT CENTRE

a) Directive on IPPC

The Directive 2008/1/EC of 15 January 2008 concerning integrated pollution prevention and control specifies the following requirements concerning information exchange on BAT:

- “Article 11 - Developments in best available techniques
MS shall ensure that the competent authority follows or is informed of developments in BAT.”
- “Article 17 - Exchange of information
Paragraph 2. The European Commission shall organize an exchange of information between MS and the industries concerned on BAT, associated monitoring, and developments in them. Every three years the Commission shall publish the results of the exchanges of information.
Paragraph 4. MS shall establish or designate the authority or authorities which are to be responsible for the exchange of information under paragraph 2 and shall inform the Commission accordingly.”

b) Industrial emissions Directive

The Directive 2010/75/EC on Industrial Emissions specifies the following requirements concerning information exchange on BAT:

- Article 19 – MS shall ensure that the competent authority follows or is informed of developments in BAT and of the publication of any new or updated BAT conclusions and shall make that information available to the public concerned
- Article 13 - In order to draw up, review and, where necessary, update BREF, the EC shall organise an exchange of information between MS, the industries concerned, NGOs promoting environmental protection and the EC.
- Article 27 – MS shall, where appropriate, encourage the development and application of emerging techniques, in particular for those emerging techniques identified in BREFs.

c) Handbook on the Implementation of EC Environmental Legislation

The Handbook specifies in the Section 7 - Industrial Pollution and Risk Management Legislation, chapter on the IPPC Directive the key implementation tasks. The tasks are divided into planning and

regulation phases. In the planning phase the following actions related to BAT information exchange are recommended to carry out:

- “For each installation, or more generally for industrial sectors, the competent authority should establish BAT. This may be undertaken through consultation with the industries or industrial sectors or by external research. BAT must be appropriate for the prevailing conditions at the site and take into account the likely costs and benefits as well as applying a precautionary and preventative approach
- Establish emission limit values for all releases to the environment for all installations having regard to BAT for the installation, so that these may be incorporated as legally binding conditions in permits
- Establish a means of acquiring information on developments in BAT (through the BREFs) and ensure that the competent authorities are kept informed
- Provide training for the technical staff of the competent authorities.”

In the regulation phase the following actions related to BAT information exchange are recommended to carry out:

- “The competent authority should issue guidance on the procedure to be followed, including guidance on the information to be included in applications, and the definitions of BAT for the sector or the specific installation.”

Furthermore the Handbook specifies Institutional Requirements for Implementation and Operation of Industrial Pollution Control Sector. The institutional requirements related to BAT information exchange which fall upon the competent authority include to:

- Provide guidance documents on BAT
- Establish and maintain the system for tracking BAT.

d) Convergence with EU IPPC Policies - Short Guide for ENP Partners and Russia, Policy Guide: A European Approach to Tackle Industrial Pollution: IPPC

Partnership and Cooperation Agreements or Association Agreements under the European Neighbourhood Policy (ENP) stipulate cooperation with EU neighbours which cover 16 partner countries to the South and to the East of the EU¹. Concrete steps of cooperation are jointly agreed in ENP Action Plans with short and medium term priorities (3–5 years). The steps cover among other various sector-policies including environment and research.

The policy guide “A European Approach to Tackle Industrial Pollution: IPPC” summarizes the main provisions of the IPPC directive, addresses the current general policy situation of Eastern and Mediterranean ENP partners, looks at potential challenges to convergence and identifies useful steps to be taken to promote convergence.

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

One of the key steps to control emissions from industrial installations is set to be “BAT as basis for a permit to be issued”. Subchapter 6.1.2 of the guide specifies the following recommendations related to BAT information exchange:

- “In order to achieve a sophisticated technological level and to enhance environmental protection, the ENP partners could engage – similar to the EU – in their own information exchange process among themselves to determine the BAT in the region. Once the BAT is identified through this exchange, it should be used as a guideline to modernize existing installations and permit new installations. This process will require a significant organizational effort by the different countries to analyze the BAT available in their territory and/or affordable for their industry.
- Another alternative would be to use the existing BREFs published by the European Commission as a basis to identify BAT for the region. The information contained in the BREF could convey what is achievable by the best available technique in Europe and could be adapted to the situation in the ENP partners.
- Nonetheless, it should be a long-term target to converge the technical standards of the Eastern and Mediterranean countries to the standard common in the European Union. In order to achieve this, there should be a constant exchange between the Eastern and Mediterranean countries/Russia with European experts and the European IPPC Bureau. This could be done on a bilateral or multilateral level, in an informal or formal way. European experts should include representatives of the National Focal Points for the Information Exchange on BAT according to IPPC Directive in the EU Member States. This exchange could help identify the BAT in the ENP Countries and Russia, and give guidance as to the approximation of the technical standards of the ENP countries to the EU’s standard.”

2.2. *NON-EU INCENTIVES FOR BAT/CLEANER PRODUCTION CENTRES*

a) OECD Integrated Environmental Permitting Guidelines for EECCA countries

The chapter VI – Strategic approach to the gradual transition to integrated permitting for large industry specifies in the subchapter 6.3.3.3. the following recommendations regarding the institutional capacity building related to BAT guidance:

“The development of national BAT guidance for industry is one of the most labour-intensive components of the transition to integrated permitting. The time required to prepare such guidance is a major factor in phasing in the introduction of new requirements for different industrial sectors.

The creation of BAT notes through original technical research and analysis is an extremely complex and expensive process, as demonstrated by the development of the EU BREFs. EECCA countries will not be able to afford to start this process from scratch. Therefore, it is recommended to use the EU BREFs as a starting point in the EECCA region. The BREFs may and should be expanded to include best techniques available in EECCA, a task that can be carried out by research institutes in close cooperation with industry and environmental authorities.”

b) UNEP and UNIDO initiatives in promoting Cleaner Production

UNEP and UNIDO have joined forces to help introduce Cleaner Production in developing countries and countries in transition. The UNIDO/UNEP Programme of establishing National Cleaner Production Centres is a unique programme of capacity development to help achieve adoption and further development of the Cleaner Production concept at the national level.

UNEP's Cleaner Production Programme has played a catalytic role in establishing an informal international network of Cleaner Production promoters and practitioners since its inception in 1989. The network encompasses representatives from governments, multilateral organizations, industrial stakeholders, development banks, academia and other non-governmental organizations. The network members have developed and are involved in Cleaner Production initiatives, as diverse as conducting plant-level assessments, building general awareness among key decision-makers and industry in general, training Cleaner Production experts, industry representatives and government officials, and developing and implementing Cleaner Production fostering policies.

International Declaration on Cleaner Production is a voluntary and public statement of commitment to the practice of Cleaner Production. The Declaration outlines a set of principles, which when implemented will lead to increased awareness, understanding and ultimately, greater demand for Cleaner Production. It was formulated in consultation with diverse interest groups, and designed to be a tool for all promoters of Cleaner Production to spread an understanding of the strategy and attract new advocates from government, business and other sectors. UNEP is continuously working to increase the worldwide consensus on a Cleaner Production 'vision' and to support the growing network of organizations dedicated to promoting Cleaner Production activities.

Providing and exchanging information - UNEP has issued many technical manuals, e.g., various Cleaner Production Industry Sector Guides, information on clean technologies and more general awareness raising publications.

As the concept of Cleaner Production is considered to be a predecessor of the BAT concept, it is possible to derive that promotion and support of Cleaner Production by UNEP constitute the international basis for BAT information exchange incentives. In many new member states and accession countries the Cleaner production centres has initiated establishment of BAT centers or projects leading towards development of national BAT guidelines.

c) World Bank - New ideas in Pollution regulation

The New ideas in Pollution regulation (NIPR) web site is maintained by the World Bank's Economics of Industrial Pollution Control research team. Its goal is to contribute to the identification and implementation of methods of pollution regulation that will lead to better economic and environmental outcomes. NIPR is considered an evolving report on work in progress.

The research team invites researchers, policy-makers, activists, employees, and employers in the search for constructive collaboration and a focus on improving the quality of life for people throughout the world who seek both better economic and environmental conditions.

This activity can be considered as an indirect incentive for BAT information exchange. More direct relation between World Bank activities and the BAT guidance development can be found in the

Pollution Prevention and Abatement Handbook released in 1998². This handbook is specifically designed to be used in the context of the Bank ' s environmental policies, as set out in Operational Policy (OP) 4.01, " Environmental Assessment, " and related documents. It promotes the concepts of sustainable development by focusing attention on the benefits - both environmental and economic - of pollution prevention, including cleaner production and good management techniques.

2.3. FUNCTIONS OF BAT CENTRE

BAT centres have been established based on the need for technical and information support for the implementation of the IPPC Directive requirements across the European Union member states. The IPPC and the Industrial emissions Directives require that the authorities responsible for determination of the integrated permit follow or are informed of the BAT developments. Further government of any EU member state shall organize exchange of information about the BAT between relevant stakeholders (authorities, industry, etc.).

Based on these requirements Ministries of Environment and/or other stakeholders across EU established organizations or reorganized some existing organization in order to ensure exchange of information about the BAT and/or BAT technical support to the permitting authorities and industry concerned.

These organizations usually fulfil one or more following functions related to BAT information and technical support:

- Development of BAT guidance on EU or national levels or adjustment of the EU BAT reference documents (BREFs) on national level
- Focal point for collecting information about implementation of BAT guidance, development of emerging BAT and revision of BAT guidance
- Dissemination of information about BAT guidance to relevant stakeholders
- Technical support in assessment or determining BAT to the permitting authority during the setting of integrated permit conditions and potential appeal procedure on the issued integrated permit
- Technical support in developing the integrated permit application and BAT comparison for the industry during preparation of the integrated permit application.

Development of BAT guidance

The function of BAT guidance development or adjustment the EU BAT guidance on the national level is the most complex and most technically and financially demanding. Development of BAT guidance is usually organized through TWGs which consist of industrial and environmental specialists and representatives of environmental authorities. The development of BAT guidance at the EU level takes about two years. The draft BAT guidance is consulted with all relevant stakeholders from industry concerned, environmental authorities and sometimes also environmental NGOs. The

² <http://info.worldbank.org/etools/docs/library/36526/pollutionprevention.pdf>

development of BAT guidance requires at least one full time coordinator or a team of specialists for the period of the BAT guidance development or update. Once the development of the BAT guidance is finished, the work of the TWG is terminated or the coordinator of the TWG continues to work as the focal point for collecting information about implementation of BAT guidance, development of emerging BAT and revision of BAT guidance.

Focal point for BAT guidance implementation and revisions

The Focal point function covers search for information on development of emerging BAT, collecting information about implementation of BAT guidance, advise on interpretation of the BAT guidance and BAT guidance revisions. The Focal point is usually ensured by secretariat or coordinator of the TWG responsible for the relevant guidance. In countries where there are no national BAT guidance, the environment agency or similar institution carries out responsibility of the information centre on BAT (using the EU BREFs) and ensure some or all activities of the Focal point.

Dissemination of information about BAT guidance

The information dissemination on BAT guidance is handled usually through an internet portal which is based on the website of the European IPPC Bureau. Further more the information centre on BAT issues booklets and brochures with brief information about BAT guidance and procedure how to obtain and use them. In the preparatory stage of implementing IPPC the BAT centre and/or representatives of the TWGs organize seminars and workshops for the relevant permitting and inspection authorities and industry to introduce the concept of BAT, the scope of BAT guidance and BAT assessment procedure.

Technical support in assessment or determining BAT

The function of technical expert support in assessment or determining BAT is needed for the permitting authorities which do not have permitting officers with sufficient technical knowledge and experience. The integrated permitting procedure requires to assess the adequacy of technical and environmental information in the integrated permit application and to determine the integrated permit conditions based on the BAT guidance. The technical support in assessing or determining BAT is usually ensured by the relevant government agency (permitting or technical support) or by external experts (consultants or representatives of the relevant industrial sector institute). The technical expertise related to BAT determination can be also required in the appeal procedure on the issued integrated permit.

Technical support for BAT comparison and developing the integrated permit application

This function is primarily aimed at supporting the industrial plants which fall under the IPPC regulation and which need to prepare the application for the integrated permit. The application for integrated permit required to compare the existing or planned technology and operating methods with the recommended BAT. Thus the relevant industrial research institutes, consulting companies or individuals which carry out environmental audits or other environmental consulting services can deliver the required assistance to the integrated permit applicants.

3. EU EXPERIENCE WITH OPERATING OF BAT CENTRE

This chapter brings the selected experience with operating institutions which ensures the BAT information exchange in the EU. Firstly, the European IPPC Bureau is presented as it creates a certain model for the EU member states. Secondly the Czech experience with establishing the BAT information exchange network is briefly described as it is one of few new EU member countries which ensures translation of all EU BREFs and operates BAT technical support body. And finally there is an example from Netherlands' BAT Centre.

3.1. *EUROPEAN INTEGRATED POLLUTION PREVENTION AND CONTROL BUREAU*

Activities and objectives

The European IPPC Bureau (EIPPCB) organizes the BAT exchange of information and produces BREFs which Member States are required to take into account when determining BAT generally or in specific cases. The Bureau carries on its work through TWGs comprising nominated national experts. These experts provide information and data and then review the draft documents the Bureau produces.

The objectives of the whole information exchange exercise are to accomplish a comprehensive exchange of information and views and through the publication of reference documents to help to redress any technological imbalances in the European Community, to promote the worldwide dissemination of limit values and techniques used in the Community and assist Member States in the efficient implementation of the IPPC Directive.

Organizational structure and institutional links

DG Environment with the European Commission plays the role of decision making body in the BAT information exchange system on the European level. It approves the working plan for development of BAT, final version of BREFs and takes decision on the financial resources for the Information Exchange Forum³ (IEF), EIPPCB and TWGs.

The IEF plays the advisory role. It organizes semi-annual meetings on which the activities of TWGs are discussed and recommendations to the DG Environment on draft BREFs and TWGs work plan are agreed. IEF members are representatives of environmental institutions responsible for IPPC implementation on national level (usually the MoEs). The Administrator and coordinator of IEF is ensured by the DG Environment.

The EIPPCB is established by the European Commission within the Institute for Prospective Technological Studies in Seville. It comprises the head of the Bureau, small secretariat (3 personnel) and the team of technical experts, who coordinate



³ Currently Forum according to Art. 13 of the Industrial Emissions Directive

and ensure the development or review of one or more specific BREF and manages the work of the relevant TWGs. The number of technical experts employed by the EIPPCB depends on the work plans of BREF developments and revisions. The technical staff is hired for the period of development or revision of the selected BREFs (usually 2 years).

TWGs comprise of nominated experts from EU Member States, EFTA countries, Accession countries, industry and environmental NGOs. These experts are not employed by the EIPPCB. They usually represent the staff of national environmental authority, relevant industrial association or research institute and environmental NGOs.

The result of the EIPPCB and TWGs activities – BREFs and newly BAT conclusions are published on <http://eippcb.jrc.es> along with the source information.

Operating procedure and methods

BAT Reference documents are produced following a set BREF outline and guidance as agreed on IEF, approved and issued by European Commission as the Decision no. 2012/119/EU laying down rules concerning guidance on the collection of data and on the drawing up of BREFs and on their quality assurance⁴. The guidance describes the procedural requirements for the development of BREFs and TWG work. The procedural requirements describe the ways of providing information for BREFs development and review. The Information for BREFs development and review are gathered through the internet Members Workspace (BAT information system). The Workspace provides a mechanism for the nominated TWG experts working on draft documents to exchange views on draft text and other information before the document is released to a wider audience. To provide the appropriate working environment for this drafting work, access to the workspace is restricted to those actively participating in the work with a recognized username and password. The procedural requirements are listed in Annex 1 of this report.

The BREF outline refers to standard pieces of text already translated into most European languages. In particular, the preface to BREFs and the standard introduction to chapters on BAT make important foundations for the understanding of BREFs. The reviews of BREFs are carried out following a *Generic schedule for the review of BREFs* as agreed with DG Environment and the IEF. The current Generic schedule is attached as **Annex 2** of this report.

Financing the EIPPCB activities

The activities of IEF and EIPPCB are primarily financed from the budget of the European Commission, DG Environment. The European Commission provides finances for meetings of the IEF, salaries of the permanent staff of the EIPPCB, and meetings of TWGs, translations of BAT conclusions to all European languages.

⁴ Available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:063:0001:0039:en:PDF>

3.2. CZECH SYSTEM OF INFORMATION EXCHANGE ON BAT

Activities and objectives

The BAT information exchange is ensured by the Information exchange forum under the management of three ministries (MoI, MoE, MoA) based on the provisions of the IPPC law no 76/2002 Coll. The provisions of the law further specify that each of the three ministries is responsible for translation and if needed adaptation of the BREFs which are relevant to their given competencies. Thus the MoE is responsible for BREFs related to waste management and horizontal issues. MoA is responsible for BREFs related to farming and food industry. MoI is responsible for all industrial BREFs. Detailed requirements for BAT information exchange were approved by the Government decree no. 63/2003 Coll.

The translation and adaptation of BREFs are carried out by relevant national technical working groups (NTWGs). The translated BREFs and information related to BAT and information exchange forum are published on Internet www.ippc.cz.

In 2002 MoE established in line with provisions of the IPPC law special Integrated Prevention Agency to provide technical support in IPPC for the regional permitting authorities. The technical support focused in the transitory phase of IPPC implementation mainly on expert assessment of the integrated permit application including BAT assessment and information support of the permitting authorities.

In 2005 the Agency was reorganized and divided into two units (the IPPC unit and the BAT Evaluation unit). The mission of the BAT Evaluation unit is to cooperate on the BAT information exchange at the Czech as well as the international level, search for, process and analyze available information on BAT development in the Czech Republic. The IPPC Unit participates in the coordination of the IPPC process in the Czech Republic, exchanging information on the BAT within the Czech Republic and the EU countries. Detailed description of IPPC and BAT units' activities is listed in Annex 3 to this report.

Organizational structure and institutional links

Translation of BREFs is carried out by NTWGs. Each NTWG comprises relevant experts from industry, research institutes and environmental authorities. The head of the NTWG is nominated by its members to the Information exchange forum both on Czech and EU level. The translation of BREFs is carried out on project basis based on the results of European BREFs developments. Draft translations of BREFs are consulted within the relevant NTWG and subsequently adopted by one the responsible Ministries.

Technical support of IPPC implementation is within the competence of MoE which delegated this function to the Czech Environmental Information Agency (CENIA). CENIA is a state (contributory) organization financed by MoE. CENIA is organized into four main sections.

Within the section of technical environmental protection, there is the Department of IPPC and EIA which fulfils the role of the IPPC and BAT expert support. The department is divided into BAT Evaluation unit and IPPC unit.

The Department of IPPC and EIA is subordinated to the MoE IPPC and EIA department which deals with the overall coordination of the IPPC implementation in the Czech Republic.

Operating procedure and methods

The BAT Evaluation unit uses unified methodology for the assessment of integrated permit application in order to ensure assessment of the application by relevant expert and mutual control of the assessment result. The methodology was established internally in the first year of IPPC implementation based on the integrated permit pilot projects and the fresh experience with application assessments.

BAT evaluation is carried out in line with relevant BREFs and in case of no BREF or insufficient information in the BREF, the evaluation is carried out based on the BAT criteria listed in the Annex 4 of the IPPC Directive. Other activities of the BAT Evaluation and IPPC units are carried out based on requirements or with approval of MoE's IPPC and EIA Department.

Currently there are 14 people employed in the BAT Evaluation and IPPC units. In the transitory period during 2002 – 2007, there were approximately 24 technical experts and support staff responsible for integrated permit application assessments.

Financing the BAT information exchange activities

Translation of BREFs by NTWGs is financed by one of the three relevant Ministries on project bases.

Activities of BAT Evaluation and IPPC units within CENIA are financed in majority from the budget of MoE⁵. The status of “contributory” state organization also allows to work on projects for industry or other national and international organizations.

3.3. NETHERLANDS - FLEMISH BAT CENTRE

The Flemish BAT centre was established in 1995 upon request from the Flemish government within VITO. VITO is an independent and customer-oriented research organisation, which provides innovative technological solutions as well as scientifically based advice and support in order to stimulate sustainable development and reinforce the economic and social fabric of Flanders.

The BAT Centre inventories information on the available environment friendly techniques, selects the BAT and translates these into environmental licensing conditions and ecological aid. Information about the centre is available at www.emis.vito.be/bbt.

⁵ The Budget for the IPPC technical support in 2003 was approximately 0,6 mil EUR. Since then the funding from MoE has slowly decreased.

Mission of the BAT centre is to support authorities in the implementation of BAT and the European IPPC Directive through the evaluation and development of policy instruments.

VITO's BAT centre's functions are to collect and spread information concerning environmentally and energy friendly steps in industrial processes and select the BATs for various sectors.“

VITO's BAT centre activities include:

- Representation of Belgium in the EU exchange of information on BAT (IEF, TWGs)
- Dissemination of BREFs to industry and authorities in the Flemish region
- Providing additional guidance to policy makers and operators of IPPC plants on how to use the BREFs, by BREF checklists
- Developing international projects to implement the IPPC Directive
- Developed practical tools to assess the affordability and the cost-effectiveness of possible BAT investments.

4. RECOMMENDATIONS FOR THE ESTABLISHMENT AND OPERATION OF A BAT CENTRE

This chapter presents proposal of the objective, functions, legal basis, institutional settings, organization structure, functional procedure, principles and methods, and financing options of the planned BAT centre in the project countries.

BAT centre objective

The primary objective of the BAT centre is to facilitate information exchange on BAT and ensure information and technical support in relation to integrated permitting regulation.

BAT centre functions:

- Development of national BAT guidance based on the EU BREFs and related national and international documents;
- Focal point for collecting information about implementation of BAT guidance, development of emerging BAT and revision of BAT guidance;
- Dissemination of information about BAT guidance to relevant stakeholders;
- Technical support in assessment or determining BAT for the permitting authority during the integrated permit procedure;
- Technical support in developing the integrated permit application for the industry.

The proposed scope of functions covers all support functions which are needed for the smooth and efficient implementation of the IPPC Directive. Ministries of Environment in each country shall set the scope of function based on its aims within the environmental permitting reform, the legal provisions of the integrated permitting regulation and the available financial sources for BAT centre operation.

The legal basis of the BAT centre

The key functions or competencies of the BAT centre shall be specified in the relevant legal instrument e.g. the Law on integrated environmental permitting system in order to allow for funding from state budget. In case the BAT centre will be operated within the framework of the Ministry of Environment (e.g. organization subordinated to the Ministry) the functions or competencies can be set as the functions of the Ministry in the relevant law.

Institutional settings options

The BAT centre can be established in one of the following ways:

- a) Select and appoint suitable existing organization which expertise and experience allows to built on the above mentioned BAT centre functions (this can be for example an organization

subordinated to the MoE or industrial R&D institute which cover several industrial sectors regulated by integrated permits – e.g. Cleaner Production Centre);

- b) Create a new organization which shall attract relevant industry experts;
- c) Establish a certification procedure for authorizing external consultants, consulting companies or research institutes in order to ensure operations of the BAT centre function externally.

Based on the experience across the EU, the most common option of institutional arrangement for the BAT centre functions is the first of the above listed options. In many old and new EU members states the existing support organization of the MoE⁶ was appointed to carry out the functions of BAT information exchange.

Appointing an existing organization subordinated to MoE has several benefits:

- Low cost related to organizational and legal establishment of the BAT centre;
- Support of MoE as the organization has long term cooperation with MoE;
- Established credibility and cooperation with industry throughout former activities.

Organization structure

The organization structure needs to address the appointed functions and fits to the funding and methods of cooperation with relevant BAT information exchange stakeholders.

The following structure is proposed to fulfil all the BAT centre functions. The BAT centre shall consist of:

- 1) BAT guidance development unit
- 2) Focal point for information exchange unit
- 3) Technical expert support unit

The unit responsible for national BAT guidance development shall work in similar structure as the EIPPCB in Seville, i.e. to employ coordinators of TWGs for developing and revising national BAT guidance and ensure the conditions for the TWGs work. The coordinators will be employed for the period of the BAT guidance development (about 2 years).

The unit responsible for functions of Focal point for collecting information about implementation of BAT guidance, development of emerging BAT and dissemination of information about BAT guidance to relevant stakeholders shall work also as the secretariat of the BAT centre and provide information on the BAT centre activities through internet.

The unit of technical expert support on BAT assessment and integrated permit application shall provide support both to the permitting authorities and to industry. Nevertheless the operation procedure for BAT assessment and integrated application development shall set the priority in providing support to permitting authorities and it shall resolve the potential conflict of interest in case the BAT centre would prepare the integrated permit application and it would be requested to provide

⁶ E.g. the Environment Agency in the UK, the Institute for environmental management in Hungary, VITO institute in the Netherland, the National Environment Institute in Finland

technical assessment of the same application for the permitting authority during the integrated permitting procedure.

Concerning the number of staff, it is recommended to ensure effective management by 4 management positions (1 director of the BAT centre and 3 managers - one for each unit). In the unit responsible for the development of BAT guidance the staff - TWGs coordinators - shall be hired in accordance with the plan for developing national BAT guidance and availability of experts for work in TWGs. The coordinators shall have long term experience with working in the industrial sector for which they will be coordinating the BAT guidance development and they shall also have a very good knowledge of English language.

TWG Members shall have an advisory function and their input to the work of TWG shall be funded from organizations which employ them. The unit functioning as focal point for information exchange shall employ 3 – 5 staff including IT specialist, coordinator and technical assistants. The technical expert support unit shall hire technical experts for internal and/or external cooperation on BAT assessment and integrated permit application development and assessment. The number of the staff in this unit shall ensure sufficient support of the permitting authorities in issuing the integrated permit for the existing and new industrial plants in accordance with the transitory plan for bringing the existing industry to the integrated permit regulatory system. The technical support staff shall have sufficient knowledge and experience with operating technologies in the relevant industry, environmental assessment and legislation. The technical support for the industry can be ensured through external cooperation with relevant/authorizes experts.

Based on the experience with operating organizations ensuring the BAT information exchange and related technical support, it is recommended that the BAT centre shall employ about 50⁷ experts for the transitory period of integrated environmental permitting system implementation.

Functional procedure, principles and methods

The management of the BAT centre shall agree with relevant Ministry the priorities and time schedules for providing the services e.g. time available for developing BAT guidance, assessment of an integrated permit application or BAT assessment for the permitting authority.

All units of the BAT centre shall work on the team cooperation basis. Thus the organization structure shall be sufficiently flexible to allow cooperation across all units. The BAT guidance unit shall work on project basis.

In order to provide quality technical support in effective way the manuals/guidance for the regular activities shall be developed. The guidance shall cover the following activities:

- Development and revision of national BAT guidance
- Collecting information about implementation of BAT guidance and development of emerging BAT
- Assessment and determining BAT for concrete installations/plants during the integrated permitting

⁷ This number is derived from the number of EU BREFs (35)

- Developing of the integrated permit application for the industry
- Assessment of the integrated permit application for the permitting authority.

Financing options of the planned BAT centre

The financial options depend first of all on the legal status of the BAT centre. In case the BAT centre will be established with the organization subordinated to some Ministry it gives possibility to combine the state budget, private and grant funding.

Based on the European experience it is advisable to ensure funding from state budget for developing national BAT guidance, focal point for information exchange unit and providing technical expert support to the permitting authorities.

The MoE and subsequently the established BAT centre can also apply for grants or projects funded from international organizations such as the European Commission, UNEP, World Bank in order to develop the national BAT guidance, pilot projects and related training. As similar projects for implementation of IPPC have been carried out in other countries of EECCA region, it is possible to consider preparation of common application with one or more EECCA countries for international funding for developing BAT guidance in Russian language.

The function of providing technical expert support to industry shall be financed by the industry as a consultancy service. The income from providing this service can be used for improving the other services of the BAT centre.

Concluding remarks

It is recommended to develop the action plan for the BAT centre establishment. This action plan shall be harmonized with the implementation plan for the environmental permitting reform in any project country.

The planned cooperation with industrial experts from existing industrial sector R&D institutes or other institutions shall be discussed and agreed in advance to build up a realistic structure and fulfill the BAT guidance development plan.

Early involvement of the BAT centre in projects related to BAT application such as pilot projects and trainings can greatly help in building up the necessary expertise. For gaining experience with BAT information exchange, it is recommended to establish cooperation with the EIPPCB and/or one of the EU member states' national BAT network.

5. REFERENCES

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6. ANNEXES

6.1. *ANNEX 1 - SUMMARY OF IPPC BREF OUTLINE AND GUIDANCE*

Purpose of guidance and outline

The purpose of this paper is to provide an agreed basis for the work to be carried out in the European IPPC Bureau with the Technical Working Groups (TWGs) set up according to the work plan of the Information Exchange Forum (IEF). The text of this paper is not intended to be included in the BREF documents as such but is meant to guide the BREF authors and the members of the TWGs in a harmonised manner across the whole series of BREFs.

Procedural expectations

A BREF is the product of an exchange of information carried out with a dedicated TWG constituted for the purpose. After finalizing the first round of BREFs the focus of the information exchange will shift to review of early BREFs plus any new special requests. The review of BREFs is a continuing process which is a consequence of the dynamic concept of best available techniques.

The decision to start reviewing a BREF is taken by the European Commission based on the recommendation of the IEF on the work programme taking into account information in the emerging techniques and concluding remarks chapters of the BREF and factors such as the time that has elapsed since the BREF was initially published or reviewed, the indication that new techniques might be available, the need to expand the scope of the BREF, and the need to include products/substances or processes not covered in the BREF.

The TWG remains the primary means through which all information required for BREFs is gathered and assessed. Information not submitted to the TWG within the requisite time period cannot be expected to be included in the final BREF. The European IPPC Bureau acts as a neutral, technically competent secretariat to all TWGs. The life span of a TWG and the time to prepare a final draft BREF will vary according to the detail of the subject.

In the case of a totally new BREF, the expectation is to complete a final draft within about two to three years of starting the work. The procedure to create the final draft will normally include two plenary meetings of the TWG and submission of draft BREF or draft parts of BREF to the TWG for review and comment.

In the case of a review of an existing BREF, the TWG will be reactivated by the European IPPC Bureau according to the work programme and will be asked to submit new or updated information to the European IPPC Bureau for consideration by the TWG in the review work. The expectation is to complete a final draft for a reviewed BREF within about one and an half year of the deadline set for receiving the new or updated information. The procedure to create the final draft will normally include three plenary meetings of the TWG and the preparation of one intermediate draft BREF for review and comment by the TWG. However in exceptional cases, based on the recommendation of the IEF, the Commission may decide that another full draft may be necessary.

Most of the work for TWG members can be expected outside of the plenary meetings in submitting information and reviewing draft proposals. In particular, the successful development of a BREF requires the TWG to respond in detail to substantial draft documents within a limited time period. As a general rule a minimum of 8 weeks will be scheduled for a TWG to submit comments on full draft BREFs. To address specific issues within the whole scope of the work, sub groups may be constituted who should submit draft text or proposals to the whole TWG. For any information to be satisfactorily validated by the European IPPC Bureau and reviewed by the TWG, it is necessary for the TWG members to submit information early in the working life of a TWG, in general within the first 12 months for a new BREF and within the first 6-8 months for a review after the kick-off meeting. Information submitted later cannot be expected to be included in the final BREF. Information which is well supported by evidence will be given more weight than unsupported views and opinions. Whilst consensus of the TWG is sought throughout the work, it is not a pre-requisite and it is the task of the European IPPC Bureau to reflect the available information in the draft BREF.

The role of the IEF is to generally oversee the information exchange process. Specifically this includes recommending to DG Environment the rolling work programme and keeping it under review, discussing the scope of upcoming BREFs (in particular horizontal BREFs) and indicating to the Commission the degree of support for final draft BREFs. IEF members are also expected to take responsibility for ensuring nomination of their members to TWGs and to keep in contact with these throughout the drafting process. Final responsibility for publication of BREFs rests with the Commission.

6.2. ANNEX 2 - GENERIC SCHEDULE FOR THE REVIEW OF BREFS

The IPPC Information Exchange Forum approved the following generic schedule for the review of BREFs under the IPPC Directive. The updated version of this schedule – procedure for BREFs' review under the Industrial Emission Directive is listed in the Decision 2012/119/EU laying down rules concerning guidance on the collection of data and on the drawing up of BREFs and on their quality assurance⁸.

1. Introduction

The decision to start reviewing a BREF is taken by the Commission based on the recommendation of the IEF on the work programme regarding BREF reviews. This decision should take into account information in the emerging techniques and concluding remarks chapters of the BREF and factors such as the time that has elapsed since the BREF was initially published or reviewed, the indication that new techniques might be available, the need to expand the scope of the BREF, and the need to include products/substances or processes not covered in the BREF.

The schedule described in this document is a reference point for the different TWGs, which could adapt it to the specificities of the particular BREFs, taking also into account the experience gained from the review process of other BREFs.

⁸ See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:063:0001:0039:en:PDF>

2. Generic schedule for the review of a BREF

The following table shows the generic schedule for the review of a BREF

Step No.	BREF review step	Expected step time (months)	Accumulated time (months)	Comments
0	Preparation for the review			After finalising a BREF, the EIPPCB produces a document to enable the communication between members of the TWG through the “workspace”, in particular as regards follow-up actions to the recommendations for future work made in the BREF and in view of the future review of the BREF. The TWG Members Workspace should serve as a forum for discussion and exchange of information in support of the review process.
1	TWG activation	1	1	The EIPPCB reactivates the TWG calling for confirmation of membership and contact details.
2	Wish list	1 – 2	2 – 3	The request for establishing a wish list is made to the TWG, based in particular on the issues identified in the concluding remarks chapter of the preceding BREF version. At the same time, the tools for the information exchange (such as internet workspace) can be restructured in preparation for the wish-list and submission of information. TWG members are then given time to develop and submit their wish list and promises of information they would like to see brought into the review process.
3	Kick-off meeting	1	3 – 4	The EIPPCB then structures the wish-list of information and, if necessary, develops standard templates for each issue on the wish list, for the TWG to provide information in a structured, efficient and directly usable way. The EIPPCB calls a meeting of the TWG in order to discuss the wish list, to agree on the scope of the review and to clarify the process before starting an extended period of information gathering before a stated deadline. This kick-off meeting could be replaced by a written procedure if, for instance, the tasks arising from the wish list are well defined and clearly structured.
4	New information (deadline)	6 – 8	9 – 12	The TWG collects, collates and submits information promised or identified in the conclusions of the kick-off meeting. During this period, the author can participate to site visits, which might be agreed at or after the kick-off meeting.
5	Consultation and second meeting	2 – 3	11 – 15	Once the deadline for submission of information has expired, the European IPPC Bureau disseminates and consults on the information received to the TWG members who review what has been submitted and make their comments on the new information submitted. The European IPPC Bureau prepares a TWG meeting to discuss the information and comments and agree what information is considered valid for inclusion in a revised draft of the BREF. A background paper based on the information received is prepared by the European IPPC Bureau in advance of the meeting, with the view to steering the discussions and preparing the decisions to be made at the meeting.

Step No.	BREF review step	Expected step time (months)	Accumulated time (months)	Comments
6	Draft	4	15 – 19	Based upon the outcome of such a meeting, the European IPPC Bureau then takes the submitted information and produces a draft of the revised BREF, including the chapter on BAT conclusions, for formal consultation with the TWG.
7	TWG comments	2	17 – 21	The draft of the revised BREF is issued for formal consultation for TWG comments within two months.
8	Final meeting	3 – 4	20 – 25	The European IPPC Bureau again analyses the comments and prepares for a final TWG meeting. This final TWG meeting seeks consensus for a final draft.
9	Final draft	3	23 – 28	The final draft is produced and submitted thereafter to DG Environment at an IEF meeting.
10	Presentation at an IEF meeting			The final draft will be available to the IEF at least one month before the IEF meeting.

- 1.1 The timescales noted in the above table should be taken as representative of a typical review for the sectoral BREFs. For the “chemicals” BREFs, a specific analysis will be carried out in 2006 to decide on the way to review these BREFs.
- 1.2 The exact time of each project highly depends on the number of topics that need to be reviewed and on the complexity of each topic addressed.
- 1.3 It is expected that only one full draft (step 6) will be issued. However, in exceptional cases, based on the recommendation of the IEF, it may be decided that another full draft may be necessary.
- 1.4 The objective of the review of a BREF is not to rewrite the whole BREF. but to review new information (for instance regarding techniques or new processes to be covered in the BREF) which can have an impact on BAT conclusions. The review should also enable the correction of errors and possible incoherence with other BREFs.
- 1.5 From experience of recruiting seconded national experts to the EIPPCB it is considered increasingly difficult to get secondments lasting for more than two years. It is highly desirable to retain the same person in the EIPPCB team (author) to carry out the work from start to finish. As far as possible in view of the constraints linked to the recruitment of authors, the only way to achieve this objective is to limit the time for data collection and to consider, starting with a dedicated author in the EIPPCB team close to the date of the kick-off meeting, having the earlier activation of the TWG and establishment of the wish-list carried out administratively by the EIPPCB. In this way, each BREF review could be led full time by an author from “start” to finish starting at point just prior to the kick-off meeting in step 3 in the above table. The period associated with steps 3 to 10 in the above table is realistically around 2 years and may therefore be more attractive to the employers of potential secondees.
- 1.6 In order to make the most efficient use of resources during a review, there needs to be a clear cut off point for submission of new information after which date the TWG only works with the information submitted by this deadline. Clearly, the most relevant new information is that which might lead to revised conclusions on BAT. Additionally, there is the issue of complementing older information with new information regarding the enlarged EU
- 1.7 The EIPPCB will provide a consolidated version of the revised BREF. This will highlight the new information and changes carried out in comparison with the former BREF. This will help the user of the documents to identify what has been changed. In specific cases and with agreement of the TWG, an addendum, which will only include the changes made to the BREFs, may also be produced.

6.3. ANNEX 3 - DESCRIPTION OF CZECH BAT EVALUATION AND IPPC UNIT

BAT Evaluation Unit

The mission of this unit is to cooperate in the exchange of information on BAT at the Czech as well as the international level, search for, process and analyze available information on BAT development in the Czech Republic, especially in the case of installations that have entered into the process of IPPC.

Provides support to cross-sectional technical working groups under the Ministry of the Environment (Economics and Cross-media Effects, Monitoring, Waste Water and Waste Gas Treatment, Storage of Hazardous Chemical Substances, Waste Processing, Waste Incineration, Cooling Installations). Performs publication and information activities, operates an information system about the IPPC process and supports the activities of the Integrated Pollution Prevention and Control Agency.

The strategic objective of the BAT Evaluation Unit is to:

- Provide and further develop an information exchange system focused on BAT
- Analyze and process information on BAT development both in the Czech Republic and abroad
- Engage in cooperation at national as well as international level.

BAT Evaluation Unit:

- Provides top-quality services intended mainly to provide support to public administration,
- Is a partner in international cooperation and an active contributor to the development of the issue of integrated pollution prevention and control and its harmonization at the national as well as the international levels,
- Cooperates with both domestic and foreign experts and the public,
- Supports state policy co-ordination in the field of integrated pollution prevention and control.

Integrated Pollution Prevention and Control Unit

The IPPC Unit participates in the coordination of the IPPC process in the Czech Republic, exchanging information on the BAT within the Czech Republic and the EU countries.

The IPPC Unit is responsible for:

- Acting in the capacity of a competent body, developing and providing support to public administration in the field of integrated pollution prevention and control
- Making the process of integrated permits as comfortable as possible to all the participants
- Optimizing the amount of load the participants in the integrated permits process are exposed to, maintaining the high-quality of outputs
- Unifying both the extent and the content of the permits in the Czech Republic
- Participation in data updates, development of the information system of integrated pollution prevention and control and the exchange of information on the best available techniques
- Increasing the process efficiency
- Cooperating with similar bodies at both the national and the international levels.

More information is available on www.cenia.cz.