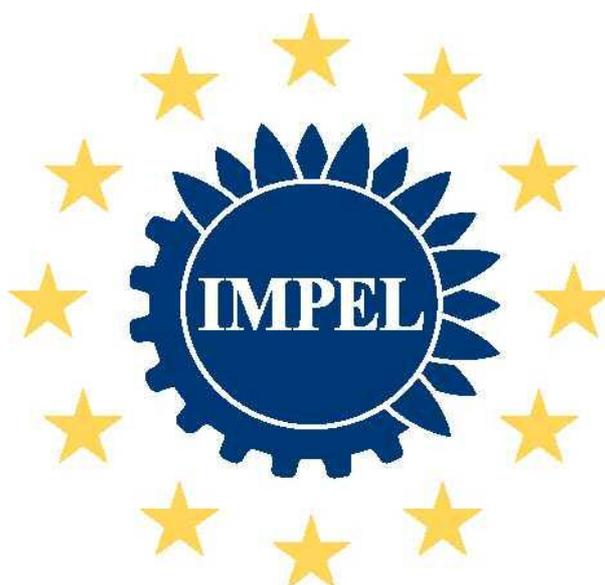


**IMPEL-WORKSHOP  
ON THE USE OF VOLATILE ORGANIC  
COMPOUNDS-VOC**



European Union Network for  
the Implementation and Enforcement  
of Environmental Law

March 2006



## INTRODUCTION

The European Union Network for the Implementation and Enforcement of Environmental Law is an informal network of the environmental authorities of EU Member States, acceding and candidate countries, and Norway. The European Commission is also a member of IMPEL and shares the chairmanship in its Plenary Meetings.

The network is commonly known as the IMPEL Network
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The expertise and experience of the participants within IMPEL make the network uniquely qualified to work on certain of the technical and regulatory aspects of EU environmental legislation. The Network's objective is to create the necessary impetus in the European Community to make progress on ensuring a more effective application of environmental legislation. It promotes the exchange of information and experience and the development of greater consistency of approach in the implementation, application and enforcement of environmental legislation, with special emphasis on Community environmental legislation. It provides a framework for policy makers, environmental inspectors and enforcement officers to exchange ideas, and encourages the development of enforcement structures and best practices.

Information on the IMPEL Network is also available through its web site at:  
<http://europa.eu.int/comm/environment/impel>



## Document Page:

<p><b>Title report</b></p> <p>IMPEL workshop on the use of volatile organic compounds – VOC, Salzburg 2005</p>	<p><b>Number report:</b></p> <p style="text-align: center;">Year/number</p> <p>Year = Year of Work programme</p> <p>Number = Number of project in the workprogramme</p>
<p><b>Project Manager/Authors</b></p> <p>Mr. Guenter Dussing, Land Salzburg, Austria</p> <p><b>Project Group Members</b></p> <p>Gross Robert (Land Salzburg), Hafner Wolfgang (Land Carinthia, Klagenfurt), Muchitsch Wilhelm (Ministry for Economic Affairs and Labour, Vienna), Rosenberger Harald (Land Lower Austria), Ruthner Helmut (City of Salzburg), Tizek Heinz (Vienna)</p>	<p>Report adopted at IMPEL Plenary Meeting: <i>add date and place</i></p> <p><b>Number of pages</b></p> <p>Report: 18</p> <p>Annexes: 10</p>
<p><b>Executive Summary</b></p> <p>This report describes the topics and the results of the IMPEL workshop in September 2005 in Salzburg. The focal point of this project was the information about VOC - regulations and exchange of experience between the participating inspectors and technical experts of EU-Member States.</p> <p>The workshop was attended by 50 people from almost all IMPEL member states, the European Commission and Switzerland.</p> <p>The programme consisted of information about the VOC-Directive and the implementation in 3 EU-Member States (Se, It and At) on the first half day, followed by discussions of case studies, which have been prepared by the project group members, in small working groups. On the second day the results of the working groups have been presented at the plenary followed by an intensive discussion.</p> <p>Main results are:</p> <ul style="list-style-type: none"> <li>• There are differences in national regulations (esp. Emission Limit Values)</li> <li>• Different interpretations of some terms (e.g. fugitive emissions, installation)</li> <li>• There should be a review process of the VOC-Directive</li> </ul>	
<p><b>Disclaimer</b></p> <p>This report on (title) is the result of a project within the IMPEL Network. The content does not necessarily represent the view of the national administrations or the Commission.</p>	



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## Summary

On March 11<sup>th</sup> 1999 the Directive 1999/13/EC on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations (VOC-Directive) was adopted.

In Austria two national regulations concerning VOC already existed before adopting the VOC-Directive. During the transposition process many discussions with administrative bodies and industries took place. Especially the Austrian Chamber of Commerce tried to avoid a so called "golden plating" of the VOC-Directive. Therefore the Directive was transposed into national law in July 2002.

In the year 2000 a national IMPEL network for VOC was established to accompany the transposition process and to have a discussion forum for technical experts and inspectors.

In the year 2004 a proposal for an international meeting was discussed within the national network and there was an agreement to organise a workshop with the support of IMPEL. A project team of 8 people was established and who decided to organise a 2 days workshop in Salzburg/Austria.

The focal point was an intensive discussion of questions and problems concerning VOC with the help of case studies. The activities "coating", "printing", "pharmaceutical industry" and "surface cleaning" were selected and case studies were prepared by members of the project team.

During the IMPEL-workshop, information about VOC-regulations in the Directive and some national laws were presented to the participants. The main focus was the discussion of the prepared case studies in small working groups, which consisted of between 8 and 16 members each.

The main results were:

- there are partially great differences between the national regulations in the EU-MS.
- there are still different interpretations of some terms (eg installation, fugitive emission).
- beneath national VOC-regulations also other common requirements for emission reduction exist (eg dust/particles).
- some requirements in the directive have been criticized and there should be a review process.

The participants expressed their satisfaction with the procedure and results of the IMPEL workshop. For many people it is still a learning process because of the complexity of the VOC-regulations.

In the future an information exchange forum for inspectors and technical experts should be established and review process of the VOC-directive after the transition period in 2007 is recommended.

## **1. Project Background**

### **1.1 Background**

Action at Community level in accordance with Article 130r of the Treaty is necessary, if air pollution due to volatile organic compounds in one Member State is not to influence the quality of air and water of other Member States.

Volatile organic compounds in the ambient air can be harmful for public health and/or contribute to the local and transboundary formation of photochemical oxidants in the boundary layer of the troposphere.

Therefore, preventive action is required to protect public health and the environment against the consequences of particularly harmful emissions from the use of organic solvents and to guarantee citizens the right to a clean and healthy environment.

Emissions of organic compounds can be avoided or reduced in many activities and installations because potentially less harmful substitutes are available or will become available within the coming years.

Where appropriate substitutes are not available, other technical measures should be taken to reduce emissions into the environment as much as economically and technically feasible.

The use of organic solvents and the emissions of organic compounds which have the most serious effects on public health should be reduced as much as technically feasible;

Therefore the Council of the European Union adopted (on March 11<sup>th</sup> 1999) the Directive 1999/13/EC on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations (VOC-Directive).

Before the VOC-Directive was implemented in Austria in July 2004, 2 national regulations concerning solvents existed. During the transposition process almost all national emission standards for VOC had to be changed and therefore caused some problems in the field of administration.

To cover all the different VOC-problems, which were expected to occur in the permitting and inspection procedures, in Austria a national network was established. The so called "National IMPEL Network for VOC" now has approximately 20 members out of all provinces (Länder) and almost all their capitals.

The network meets 2 times a year for 1 ½ days and the members discuss questions and problems in the field of VOC. The special historical situation of national regulations about VOC in Austria is only one reason, why so many problems arose.

In the spring meeting 2004 the idea was born to organise an international VOC-workshop, where all the problems and questions can be discussed with colleagues from other EU-MS. IMPEL is the only organisation within the European Union to support this kind of project.

The ToR first was presented at the Cluster I meeting in Warsaw in autumn 2004 and finally adopted at the IMPEL plenary meeting in December 2004. Invitations and information material were sent out in April 2005. Until the end of June more than 40 participants sent their registration forms to the project lead.

## **1.2 Project Team**

Dussing Günter (Land Salzburg, Dep. of Environmental Protection, POB 527, 5010 Salzburg, Austria)

Gross Robert (Land Salzburg, Dep. of Environmental Protection, POB 527, 5010 Salzburg, Austria)

Hafner Wolfgang (Land Carinthia, Klagenfurt, Dep. of Environmental Protection, Bahnhofstraße 5, 9020 Klagenfurt)

Muchitsch Wilhelm (Ministry for Economic Affairs and Labour, Dep. for Technical Matters of the Industrial Code, Stubenring 1, 1011 Wien)

Rosenberger Harald (Land Lower Austria, Dep. BD-4 Environmental Technique, Schwartzstr. 50, 2500 Baden of Air Pollution)

Ruthner Helmut (City of Salzburg, Dep. of Industrial Engineering, Auerspergstr. 7, 5024 Salzburg)

Tizek Heinz (Vienna, MA-22 Dep. of Environmental Protection, Ebendorferstraße 4, 1082 Wien)

## **1.3 Preparatory Work**

Five meetings with all project team members were necessary from September 2004 until August 2005. In the first meeting the Terms of Reference, the scope and procedure of the international meeting were discussed and it has been decided to organise a 2 days workshop.

The next step was to ask for financial contributions from the Land Salzburg and other organisations. The Dep. of Environmental Policy of the Chamber of Commerce agreed to support this project and offered to have the workshop in their seminar rooms and to arrange the registration.

During the 2<sup>nd</sup> meeting the case studies and the organisation (invitations, contributions from other EU-MS, timetable, etc.) were discussed. The 3<sup>rd</sup> and 4<sup>th</sup> meeting only involved preparation of the case studies. In the last meeting before the workshop all open questions were discussed and some organisational problems were solved.

## **1.4 Participating Countries**

Austria  
Belgium  
Croatia  
Cyprus  
Czech Republic  
Denmark

Estonia  
Finland  
France  
Germany  
Ireland  
Italy  
Latvia  
Lithuania  
Luxembourg  
Malta  
Netherlands  
Poland  
Portugal  
Romania  
Slovakia  
Slovenia  
Spain  
Sweden

EC  
Switzerland

Participants from Bulgaria and United Kingdom could not attend the meeting.

The List of participants is in Annex 2.

### **1.5 Financing of the project.**

Costs of the preparatory work of the project team were covered by the respective Länder and cities of Austria.

The costs of registration and the meeting rooms were covered by the Chamber of Commerce of Salzburg.

The dinner on the 2<sup>nd</sup> day was paid by the Land Salzburg.

All other costs, especially travelling and accommodation of the participants of EU member states, were covered by IMPEL (max. 40 persons).

## **2. Procedure of the Workshop**

### **2.1 Timetable**

We	21.09.05	18:00 Registration
Thu	22.09.05	09:00 Welcome and Organisation 09:30 Information about the VOC Directive 10:00 Implementation in Austria 10:30 break 11:00 Implementation in Sweden 11:30 Implementation in Italy 12:00 Presentation of the VOC-Regulation in Switzerland 12:20 Presentation of the project team and the case studies 12:30 Lunch  14:00 Discussion of the case studies in working groups (WG) 18:00 End of the 1. Day 20:00 Dinner
Fri	23.09.05	09:00 Presentation and discussion of the results of the 1. WG 09:45 Presentation and discussion of the results of the 2. WG 10:30 Break 11:00 Presentation and discussion of the results of the 3. WG 11:45 Presentation and discussion of the results of the 4. WG 12:30 Lunch  14:00 Final discussion 16:30 Summary 17:00 End of the VOC-Workshop

### **2.2 VOC-Directive**

Annex 2.

### **2.3 Information about the Implementation of the VOC-Directive in Austria**

Annex 3

### **2.4 Information about the Implementation of the VOC-Directive in Sweden**

Annex 4

### **2.5 Information about the Implementation of the VOC-Directive in Italy**

Annex 5

### **2.6 Information about the VOC-Regulation in Switzerland**

Annex 6

### 3. Case Studies, Discussions and Results

The case studies were distributed to the participants several weeks before the workshop started and they had to decide which working group they want to attend.

The presentation of the case studies was made by one of the preparatory group.

The chair (C) for the discussion and the rapporteur (R) for the presentation of the results of the working group also were taken by persons of the preparatory group

#### 3.1 Working group "Printing":

A case study for the activity "Heatset web offset printing" was prepared by Robert Gross and Harald Rosenberger.

Case study, discussion points und the results you find in Annex 7.

Participants:

	<b>First Name</b>	<b>Surname</b>	<b>Country</b>
1.	Martine	BLONDEEL	Belgium
2.	João Paulo	CARVALHO	Portugal
3.	Christian	DE LAAT	Netherlands
4.	Monica	FERREIRO-GARCIA	EC
5.	Ursula	FINSTERWALD	Switzerland
6.	Stelios	GEORGHIADES	Cyprus
7.	Robert	GROSS (C)	Austria
8.	Tadija	PENIC	Croatia
9.	Harald	ROSENBERGER (R)	Austria
10.	Dinka	TODOROVA	Bulgaria
11.	Karol	VISACKY	Slovakia

#### 3.2 Working group "Coating":

Case studies for the 2 most used activities "Coating of vehicles" and "Coating of wooden surfaces" were prepared by Helmut Ruthner and Guenter Dussing.

Case study, discussion points und the results you find in the Annexes 8, 8A and 8B.

Participants:

	<b>First Name</b>	<b>Surname</b>	<b>Country</b>
1.	Janis	BLAHINS	Latvia

2.	Pierre	DORNSEIFFER	Luxembourg
3.	Günter	DUSSING (C)	Austria
4.	Raluca	POPESCU	Romania
5.	Jørn L.	HANSEN	Denmark
6.	Peter	IMRICH	Slovakia
7.	Anneli	KARJALAINEN	Finland
8.	Colman	MAC CARTHY	Ireland
9.	Christina	MALLIA	Malta
10.	Rene	RAJASALU	Estonia
11.	Robert	ROSENQVIST	Sweden
12.	Helmut	RUTHNER (R)	Austria
13.	Richard	SCHLACHTA	Germany
14.	Lucja	STASZKIEWICZ- SZWAROCKA	Poland
15.	David	VAZQUEZ VILARELLE	Spain
16.	Gernot	WILFLING	Austria
17.	Audrius	ZELVYS	Lithuania

### 3.3 Working group "Pharmaceutical Industry":

A case study for the activity "Manufacturing of pharmaceutical products" was prepared by Wolfgang Deimböck and Heinz Tizek.

Case study, discussion points und the results you find in Annex 9.

Participants:

	First Name	Surname	Country
1.	Flaviano	D'AMICO	Italy
2.	Wolfgang	DEIMBÖCK (C)	Austria
3.	Ivan	HRABAL	Czech Republic
4.	Ingrid	JEDVALL	Sweden
5.	Andreja	KRAMAR	Slovenia
6.	Wilhelm	MUCHITSCH	Austria
7.	Lionel	PREVORS	France
8.	Heinz	TIZEK (R)	Austria

### 3.4 Working group "Surface Cleaning":

A case study for the activity "Surface cleaning with halogenated organic compounds was prepared by Wolfgang Hafner and Gernot Wurm.

Case study, discussion points und the results you find in Annex 10.

Participants:

	<b>First Name</b>	<b>Surname</b>	<b>Country</b>
1.	Raliza	DAMYANOVA	Bulgaria
2.	Iveta	GALOVICOVA	Slovakia
3.	Wolfgang	HAFNER (C)	Austria
4.	Yvonna	HLINOVA	Czech Republic
5.	Friedhelm	POHL	Germany
6.	Regina	STEINBAUER	Austria
7.	Karol	VISACKY	Slovakia
8.	Iris	WINZELY	Austria
9.	Gernot	WUIRM (R)	Austria
10.	Lenka	ZITKOVA	Czech Republic

#### 4. Conclusions

During the IMPEL VOC – workshop the differences in the national regulations in EU-Member States and the practical approaches have been discussed. Especially because of the results of the discussions of the case studies some improvements in the EU-legislation are suggested:

1. Many EU-Member States just have implemented the VOC-Directive and therefore have limited experience with enforcement.
2. The aim of the Directive is to reduce VOC-emissions as much as possible, but the Directive is not the ideal instrument because of the complicated regulations.
3. The compliance with some emission limit values should be checked on the basis of best available technology (e.g.: is there a technical reasonable solution or can it only be managed with enormous effort).
4. There should be a review process of the VOC-Directive after October 2007 especially for respectively because of:
  - discussing the advantages and disadvantages of reduction schemes used;
  - there should be a clear definition of "fugitive emissions" (e.g.: it should be discussed, if the German way of the definition is applicable also for the VOC-Directive).
  - discussing the effects of thresholds and emission limit values;
  - importance of solvent management plans and the consequences;
  - the multiplication factors for the reduction scheme (the reference and for the target emissions for some activities);
  - possibilities of exceptions:
5. Some (experienced) countries mentioned, that it would had been better to implement a national plan to reduce the VOC-emissions.

April 12<sup>th</sup> 2006  
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