



## CityChlor / ITVA Roundtable Workshop

### " tackling urban soil and groundwater contamination caused by chlorinated solvents in Germany - a review"

13th July 2010, Stuttgart

The ITVA participates in the European funded project "tackling urban soil and groundwater contamination caused by chlorinated solvents" - CityChlor, which is funded in the INTERREG IWB NWE by 2010 - 2013. The overall objective of the project is to develop an integral approach to improving the soil and ground water quality and minimizing contamination by volatile chlorinated hydrocarbons (CHC) in urban areas. The project will focus not only expertise to the investigation and remediation of HCH damage, but develop integrated processes, which include civic, organizational and socio-economic aspects. Focus of the activities of the ITVA are two workshops on strategic aspects of dealing with multiple sources of damage in the soil and groundwater contaminant plumes in groundwater and to develop both technically oriented job aids as well as recommendations for implementing an integral approach in this country circumstances.

The first national workshop will analyze the status quo in Germany on the topics:

- (A) Analysis and evaluation, rehabilitation requirements
- (B) Remediation options, remediation and monitoring
- (C) Regulatory action, communication, (funding)

The survey will address both the current knowledge and status of work as well as describe and discuss current trends and new developments. In the workshops will participate representatives of industry, of the Working Group of the remediation companies of the federal states (ASG AK), of Länder and communities, and remediation experts.

With about 15-20 participants an effective working environment is provided. The results of the workshops are summarized by a specially formed ITVA-editorial team in a workshop report and may be published as short report in the journal of ITVA "altlasten spectrum". The results of the workshop report will be implemented into the transnational project activities in the form of a "national review".

#### Participants

Invited are selected participants who are involved in the Stuttgart pilot-project or who are already involved in the theme via the ITVA bodies or who already have signaled their fundamental willingness to support the project in connection with other information.

## Program

	<b>Introduction</b>	<i>Moderation:</i>
09.00 - 09.15	Welcome	<b>Prof. Harald Burmeier</b> 1. Vorsitzender ITVA
09.15 – 09.30	<b>CityChlor – an overview</b>	<b>Hermann Josef Kirchholtes</b> Landeshauptstadt Stuttgart Amt für Umweltschutz
09.30 - 10.00	Short presentation of the work packages of ITVA, objectives and course of the workshop	<b>Dr. Thomas Ertel</b> Environment and technology, Esslingen
	<b>Impulse lectures</b>	<i>Moderation:</i>
	Entry into the topic, initial discussion and identification of issues for further discussion	<b>Dr. Thomas Ertel</b> Environment and technology, Esslingen
10.00 – 10.25	<b>Topic A: investigation and evaluation</b>	<b>Michael Altenbockum</b> Altenbockum & Partner, Aachen
10.25 – 10.50	Coffee break	
10.50 – 11.15	<b>Topic B: remediation options, remediation and monitoring</b>	<b>Jürgen Buhl</b> Cornelsen Umwelttechnologie GmbH, Essen
11.15 – 11.40	<b>Topic C: Regulatory action, communication, (funding)</b>	<b>Hermann Josef Kirchholtes</b> Landeshauptstadt Stuttgart Amt für Umweltschutz
	<b>Discussion of the issues</b>	<i>Moderation</i>
	Statements of the participants pursuant list of questions submitted in advance and based on the impulse lectures, discussion, first conclusion	<b>Dr. Hans Peter Koschitzky</b> Universität Stuttgart, VEGAS <b>Dr. Thomas Ertel</b> Environment and technology, Esslingen
11.40 – 13.00	<b>A: investigation and evaluation</b>	
13.00 – 14.00	Lunch break, exchange of ideas	
14.00 – 15.15	<b>B: remediation options, remediation and monitoring</b>	
15.15 – 15.30	Coffee break	
15.30 – 16.45	<b>C: regulatory action, communication, (funding)</b>	
16.45 – 17.00	Conclusion of the workshop	

## Key issues for discussion

### (A) Analysis and evaluation

1. The analysis of long-running remediation projects shows that the site investigations carried out before the start of redevelopment often do not provide sufficient knowledge.
  - a. Are we currently able to define the objectives of the investigations and they are achieved in practice?
  - b. What role can innovative methods play from your point of view?
  - c. How far do we reach our limits of explorability - technically and financially?
  
2. From published projects (eg Stuttgart, Frankenthal-KORA) is well known that in urban areas large scale contaminated groundwater zones can exist due to overlapping CHC plumes.
  - a. To what extent do you consider this as a norm in urban areas or are these isolated cases?
  - b. Can you provide specific examples?
  - c. Do you have personal experience with the use of integral investigation strategies and, if so, how can these be summed up?

### (B) Remediation options, remediation and monitoring

1. Success - Efficiency – Remediation Audit - System optimization
  - a. Why is so little done in this direction?
  - b. Execution of remediation: "treatment train" or "one technology fits all", what experience do you have on this?
2. Source remediation plus MNA
  - a. Will innovative methods to clean up the sources make plume remediation dispensable in the future?
  - b. Do you have practical experiences with innovative remediation technologies? If so, which?
  - c. What is your view the main obstacle to their application?

#### **Note**

*Definition of "Innovative in situ remediation technologies" according to ITVA-Guideline H 1-13: Innovative remediation technologies are methods that have reached a level of development that can be regarded as practically suitable in terms of a sustainable, efficient use, but not yet fit generally accepted codes of (good) practice and / or the state of the art. Innovative approaches also include procedures, where a combination of several methods is used, which are novel. Innovative methods should be guided by specific, well documented applications to the state of the art or to generally accepted codes of good practice.*



### (C) Regulatory action, communication (funding)

1. Remediation objectives: concentrations, rates, time track

Can you give examples where site-specific remediation objectives have been "practically feasible oriented"?

2. Remediation of large scale and overlapping contaminations (multiple polluters)

a. Do you have experience?

b. Do these experiences cause hope that integral remediation strategies are also workable in practice?

3. To which extent require integrated approaches and remediation strategies specific concepts of communications and public information?

### General

What activities can or should undertake the ITVA to promote dealing with groundwater contamination by CHC in Germany?