

INTERNATIONAL COMMITTEE ON CONTAMINATED LAND

QUESTIONNAIRE ABOUT LEGAL FRAMEWORK FOR SOIL/SITE CONTAMINATION MANAGEMENT

COUNTRY: [Czech Republic](#)

CONTACT FOR FURTHER INFORMATION:

Ales Kulhanek, Ph.D. / kulhanek@dekonta.cz

Richard Přebyl, Dr. Richard.Pribyl@mzp.cz (Ministry for Environment)

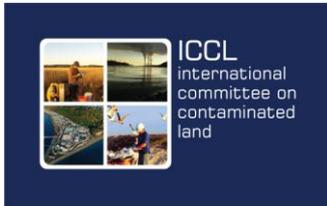
Milan Sánka, PhD. sanka@recetox.muni.cz

OVERALL CONTEXT

1. Does your national policy have a specific definition of “contaminated site”, “contaminated soil”? If yes, please provide the definition.
[NO, contaminated site is defined by means of risk-based evaluation](#)
2. Is Groundwater included in this definition?
[NO](#)
3. Does your policy on contaminated sites/land/soil include other definitions (i.e. brownfield, sediment)?
[NO](#)
4. Which sources are you considering? Industrial operations? Transport? Urban contamination? Etc.
[Mainly industrial operations, former military sites, agricultural sites \(storage of pesticides, gas stations\), mining sites, oil industry and distribution, old landfills](#)

LEGAL FRAMEWORK

5. Does your country have legislation with respect to contaminated land management?
 - a. Whatever the situation is, please be precise if it's a specific or a common legislation, if integrated in a more general one (including prevention of emissions, soil protection, land planning, environment & health, etc.)
[“Polluter pays” policy is comprised in the Act on Environmental derogation](#)



Requirements for site investigation and risk analysis of contaminated land is set by mining act, Chemical Act and methodological guidelines of Ministry of environment

Prevention of emissions to environment is comprised in Acts on Integrated prevention and pollution control (IPPC), EIA, Water protection (definition of an emergency event), Air protection, Waste management, Public health protection, Agricultural soil protection

- b. If there is no legislation, please be precise how you tackle the problem.
- c. What are the main policy objectives?

Protection of human health, ecosystem, natural resources as well as the private ownership

- d. What are the foundational principles on which the national policy is based? (e.g., polluter pays, risk-based, fit-for-use, stand-still, transparency, ...).

Polluter pays, risk-based and site-specific CLM

Limit values are also applied (e.g. for drinking water, surface water, agricultural land, application on terrain surface, etc.)

- 6. What is the Chain of Liability for the management of contaminated land?

- a. Polluter? Land owner? Last operator? Occupier?

Polluter (if known), land owner, State administration

- b. Is there any difference between new and historic contamination?

New contamination is managed in a regime of an emergency event (according to Water Act) and/or according to the Act on environmental derogation (polluter pays)

Historic contamination (in case the polluter is unknown) can be managed (financed) by state, by army or through environmental operational programmes (EU funds)

- c. Can a responsible party pass on the liability to a purchaser? (under statutory law? Contractually?)

Yes, contractually

- d. Do you separate the obligation to remediate soil pollution and the liability regarding the damage caused by soil pollution and the related remediation measures?

Yes, but not explicitly in legislation. It can be a part in a process of civil law.

- e. Are you facing specific situations (e.g. privatization of the industrial activities, war impacted areas, ...) needing special programme?



- Areas contaminated by army are managed by army
- Areas contaminated by Soviet military units (former army bases) are managed from special funds of Ministry of Environment
- During privatization in 90', some of the companies joint „ecological“ contracts with the government that guaranteed financing of CLM of the contaminated sites that were being sold

7. Are there any specifications at regional / local level?

NO

8. Are there specifications for site closure?

In terms of the IPPC policy. The site operator must prove (based on site investigation of soil / groundwater etc.) that he did not contribute to environment contamination of the site during his operation

9. Is there any legal requirement to conduct investigation for potential contamination in the sale of the property?

NO, it depends on the requirements of a buyer or the financial institution providing a loan

10. Does your national policy have any kind of inventories/registers? If yes, please be precise regarding which sites are registered, how the data are collected and if the databases are public.

Yes, the SEKM (inventory of contaminated sites database). Basic part is public, maintained by the Ministry of environment, presently about 4.400 records (localities) in the database. It is supposed to be approx. 12 % from potentially contaminated sites.

The data are collected by the organizations that are involved in CLM of the particular sites.

11. What are the strong, weak points and the major bottlenecks with respect to the current regulations in your country?

- The crucial criterion in public CLM tenders is mostly price
- Some of the overtaken CLM tools (intervention criteria values) are not ideally applied in CR (i.e. in respect to the elevated natural background of some metals, etc.)
- Obsolescence of the legislation in respect to the newly appearing pollutants (lack of limits, methodologies...)
- Insufficient financial funds (on the regional and local level) for management of emergency events

TECHNICAL ISSUES RELATED TO THE LEGAL FRAMEWORK

12. Are there site investigation requirements?

- In terms of an emergency event and/or environmental derogation event



- based on the requirements of Ministry of environment or the Environmental inspectorate
- In terms of requirements of Environmental operation funds (requirement for allocation of financial support)
- In terms of the sites development / purchase (requirement of an investor or financial institution)

13. Are Risk Assessment & Management the main tools?

Yes, methodological guidelines and intervention values for soil/groundwater mainly overtaken from US EPA

Statutory instruments of Mining Act and Chemical Act

14. Are there specific technical approaches used?

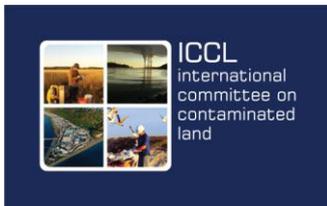
- a. For Human Health (HH), Ecosystems, Groundwater (GW), Surface waters (SW), other targets (i.e. buildings, infrastructures, ...please be precise).
 - Risk-based evaluation of considers potential impact on HH and ecosystems, GW, SW, etc.
 - in case of existence of applicable limits, these are used to compare the results of the site investigation (e.g. limit values for drinking water, surface water, agricultural land, applicability of materials on terrain surface, etc.)
 - Buildings are usually assessed in respect to the requirements for the occupational environment
- b. On a site by site specific approach, or by derivation of guideline values? If possible, please detail your answer.
 - In case of existence of applicable limits, these are driving tools for CLM. They are used to compare the results of the site investigation (e.g. limit values for drinking water, surface water, agricultural land, applicability of materials on terrain surface, etc.)
 - If no limits can be applied, risk-based approach is used
- c. Do you take into consideration others sources of pollution in the risk assessment?

All potential sources of pollution are taken into consideration.

15. If the national policy uses guideline values, please be precise in describing the following points:

- a. Reasons for derivation of generic values

Derived from US EPA (Regional Screening Levels) that reflect toxicity and mobility of the particular pollutants
RSL values for contamination of soil/groundwater/soil gas are used for the orientation comparing of the site investigations results



- b. Objectives / levels of implementation (investigation, risk assessment, remediation)
Exceeding of RSL should be considered as reason for further investigation / risk-based assessment
 - c. Priority substances
Metals, non-halogenated and halogenated aromatic hydrocarbons, PAHs, TPHs, PCBs, OCP and other pesticides, chlorinated aliphatic hydrocarbons, selected inorganic and organic substances
 - d. Protocols of derivation (including acceptable risk levels used).
They are completely taken over from US EPA (IRIS database)
16. What are the drivers for remediation?
- a. To what level is clean-up required? (i.e. acceptable risk, land use values, ...)
 - in case of existence of applicable limits, these are driving tools for CLM.
 - target limits are set for application of remediation, these are derived based on risk-based approach, which considers planned use of the subject site (residential vs industrial)
 - the target limits are proposed by a risk analysis and they are approved by Environmental inspectorate or Ministry of environment
 - b. Does your national policy use cost-benefits analysis for the choice of the remedial solution?
the cost-benefits analysis or multicriterial analysis is used in terms of feasibility studies for environmental projects incl. CLM
17. What are the main remediation strategies or treatment techniques used in your countries (including Natural Attenuation)?
- a. Distribution of techniques?
mainly dig & dump, pump & treat, supported natural attenuation, on-site and off-site biodegradation
 - b. Evolution in time?
Still more cases of natural attenuation
 - c. Acceptance of innovative treatment techniques?
there is increasing pressure for application of on-site remedial methods and innovative treatment techniques
18. Are you considering sustainability in the national approach?
- a. If yes, how? In particular, how the three pillars of sustainability are considered and balanced.
Generally yes but with no exact rules. Human health, as a part of environmental pillar is the most important aspect.



- b. If no, explain the reasons and the future challenges.
It is used as a part of feasibility studies.

19. How does your country bridge the CLM approach with:

- a. Land planning programmes?
Register of contaminated sites database is a part of land use background data according to construction Law.
- b. Public health programmes (aggregation of impacts on surrounding populations)
NOT REALLY. public health and environmental impacts are assessed in terms of risk analyses, feasibility studies and EIAs. Land planning is used in terms of the choosing of the exposure scenarios

FINANCIAL ISSUES

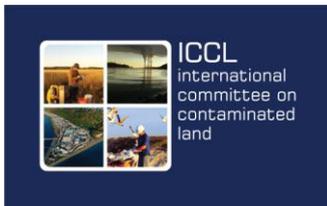
20. What are the specific practices with respect to “Orphan sites”?
generally, the state is responsible for the financing of the clean up

21. Do you have an idea of the annual budget allocated to Soil Contamination Management?

- a. How is it divided between public, private and others?
For 2012 the public budget was 140 million Eur.
- b. What are the main financial / funding systems in place in your country? (e.g. Financial guarantees, insurance, public – private partnerships, special foundation, industrial consortium, enforcement, ...).
The main guarantees are from State administration
- c. Between the different steps of management (investigation, remediation, monitoring...)?
Remediation takes the main part

ORGANISATIONAL ISSUES

22. How are stakeholders and in particular communities involved in the approach?
Significantly involved, mainly official authorities in dependence on the type of contaminated site (e.g. military site / old contamination/ emergency event). These are e.g. Ministry of environment, Environmental inspectorate, water management authority, local environmental management authority; financial



donors: Ministry of finance, operational programs, investors, owners of the land and the neighbours, supervisors of the engineering networks, etc.

In case the remedial / investigation activities has to be performed according to the Building Act (e.g. planning inquiry is held) then public and/or NGOs are also involved

23. Is there a specific approach for:

- a. Brownfields?
- b. Megasites?
- c. Widespread pollutions?

- There is difference in financing of CLM of these sites
- There are special programmes for CLM of brownfields in terms of the operational programmes (EU funds)
- Megasites (that were usually subjects of privatization) are generally financed by Ministry of finance, Ministry of Environment or through operational programmes
- there are special funds for the inventory of POPs or national environmental monitoring (case of widespread pollutions, e.g. monitoring in the framework of Stockholm Convention implementation, monitoring system of agricultural soil and protected areas)

d. Reuse of excavated soils? (e.g., in relation to their quality)

- It is set by the Waste Act – the use of excavated soil depends on its contamination extent, which is assessed by means of contamination concentrations in dry weight and/or water leachate
- The soils can be dumped back, used on the terrain surface, for recultivation of landfills or mines, or landfilled

24. Does your national policy include any accreditation system for consultants or service providers? If yes, please provide some details.

YES, usually tenders organised by state and authorities require accredited experts in geology, remedial geology and hydrogeology, certified samplers and analyses and certified waste specialists, etc.

The accreditation can be obtained from particular ministries and special accreditation body (Czech Institute for Accreditation).

25. Do you have any training / capacity building programme, any management accountability and performance measurement?

Not really, only qualifications requirements in terms of the public tenders

26. How is the necessary inter-governmental coordination for CLM organized? (e.g. with Health Protection Department, with the public site owners, with state



or local public sector environmental organizations, with special interest advocacy groups,)

Involvement of authorities depends on the type of contaminated site (e.g. military site / old contamination/ emergency event).

CRUCIAL DEVELOPMENTS IN THE FUTURE

Are there any additional issues to be further developed in the following months/years whatever they are (Research and Development needs, organisational issues, ...)?

Unofficially or officially, do you see any opportunities for collaboration in the coming months or years that may improve overall coordination among international organizations? (e.g., conferences, workshops, international (technical or policy) initiatives, growing alliances (e.g., in support of redevelopment /reuse of contaminated lands, etc.).

The CLM legislation is quite developed; in fact CR shares its experience in CLM with other countries in terms of the state development programmes.

REFERENCES

Please give most important references (documents, website, projects, and case studies) that could be relevant for explaining your national approach

Ministry of environment

http://www.mzp.cz/en/contaminated_sites

SEKM database

<http://www.sekm.cz/>

CENIA maps of contaminated sites

<http://kontaminace.cenia.cz/>

Operational programme of the Ministry of environment

<http://en.opzp.cz/sekce/510/priority-axis-4/>

Register of contaminated sites on agricultural soil

<http://www.ukzuz.cz/Folders/Articles/46660-2-Registr+kontaminovanych+ploch.aspx>

Masaryk university information system on toxic substances in the environment

<http://www.genasis.cz/index-en.php>