

Soil pollution management in France over the 20 past years

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20 years of evolutions

- 1989-93 : General policy on contaminated land
National register of contaminated (or potentially) sites
- 1996 : Priorization and classified tools to select top-priority industrial sites for conducting Preliminary Site Investigations and pollution scoring
State organisation (ADEME) for site where operator deasepeared or financially deficient
- 1999 : Defining remediation objectives according to the use
- 2003: Responsibility of parents company, financial guarantees

20 years of evolutions

- 2005: Undertake site remediation with the best available techniques under acceptable economic conditions depending on future use, and implement usage restrictions.
- 2007: National methodology to deal with site remediation : remediation objectives result on risk assessment but also on cost and benefit analyses of the remediation technics. Taking account the sanitary effects for the population
- 2011: National standards on site remediation NFX31-620
- 2012: Excavated soil guidelines
- 2012: Financial guarantees for site closures

20 years of evolutions : Legislation on contaminated land management

Principles of the national policy

- Prevention of new land contamination
- Ensure the safety of recently discovered contaminated sites
- Assess, monitor and mitigate impact
- Management base on the use of the site
- No generic values but a case-by-case risk-based approach
- Perpetuate this use and keep records of contamination
- Involve all stakeholders

Legislation on contaminated land management

- Developed within the framework of the Classified Installations (ICPE) Law
- Management of land contamination is included in the classified facilities for the purpose of environmental protection legislation
 - During the exploitation : prevention of the contamination
 - At the end of the operation :
 - The site must be cleaned up in order not to endanger the environment, human health, safety, sanitation, ...
 - The site must be cleaned up to allow :
 - For installation subject to declaration : a use similar to the previous activity
 - For installation subject to authorization : the use decided in the authorization order, or a use decided at the end of a consultation process with the operator, the mayor, and the owner of the site

Prevention of the contamination

- > Is linked with dispositions dealing with prevention of pollutions and risks in general
- > Is based on the same regulatory framework : regulation body for « classified installations »
- > Soil contamination is part of the chronic risks taken into account on industrial facilities
- > Some prevention measures are part of national regulation
 - Eg: containment mechanisms
 - Monitoring air, water emissions, groundwaters...

The general procedure at the end of the operations

- The operator has to notify the closure of his installation, and as soon as he stops, he has to put in safety the site :
 - disposal of hazardous substances and wastes,
 - environmental monitoring,
 - restrict the acces with fences,
 - suppression of explosion and fire hazards
- After these safety measures, the operator has to implement a remediation plan of the site taking account of the future use decided for the site
- The choice of the future use of the site needs the involvement of many stackholder



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The future use choice

- The authorizing order before 1st March 2006 did not specify the future use, or there was no authorizing order.
- Exploitation stop before october 2005 => Future use similar with the current use under exploitation.
- Exploitation stop after october 2005 => Determination of future utilisation :
 - The operator has to propose future utilisations within his closure notification.
 - Mayor and Owner have three months to answer.
 - Without any observation, their opinions are considered as favourable.
 - The operator implements the remediation

OR if no agreement,

- The adopted future use by default is similar with the current use under exploitation.
- But in case of incompatibility between the future use and the urban plan, the Mayor has 4 months to propose other uses (incompatibility report).
- The Prefect specifies the future use
- The operator realizes the remediation

The future use choice

- Registration for operating authorization after the 1st March 2006. It has to include:
 - Information about the remediation plan of the site after exploitation, and specify the future use
 - The opinion of the Mayor and the owner relating to this remediation
- => Prefectoral order for operating activity lays down the conditions of the remediation
- At the closure, the operator must:
 - Put in safety the site as soon as the operations are stopped
 - In a second time, to remediate the site in accordance with the determined future use.
- The declared installations have to be remediate for an industrial use

Site management procedures

Two main issues on site remediation

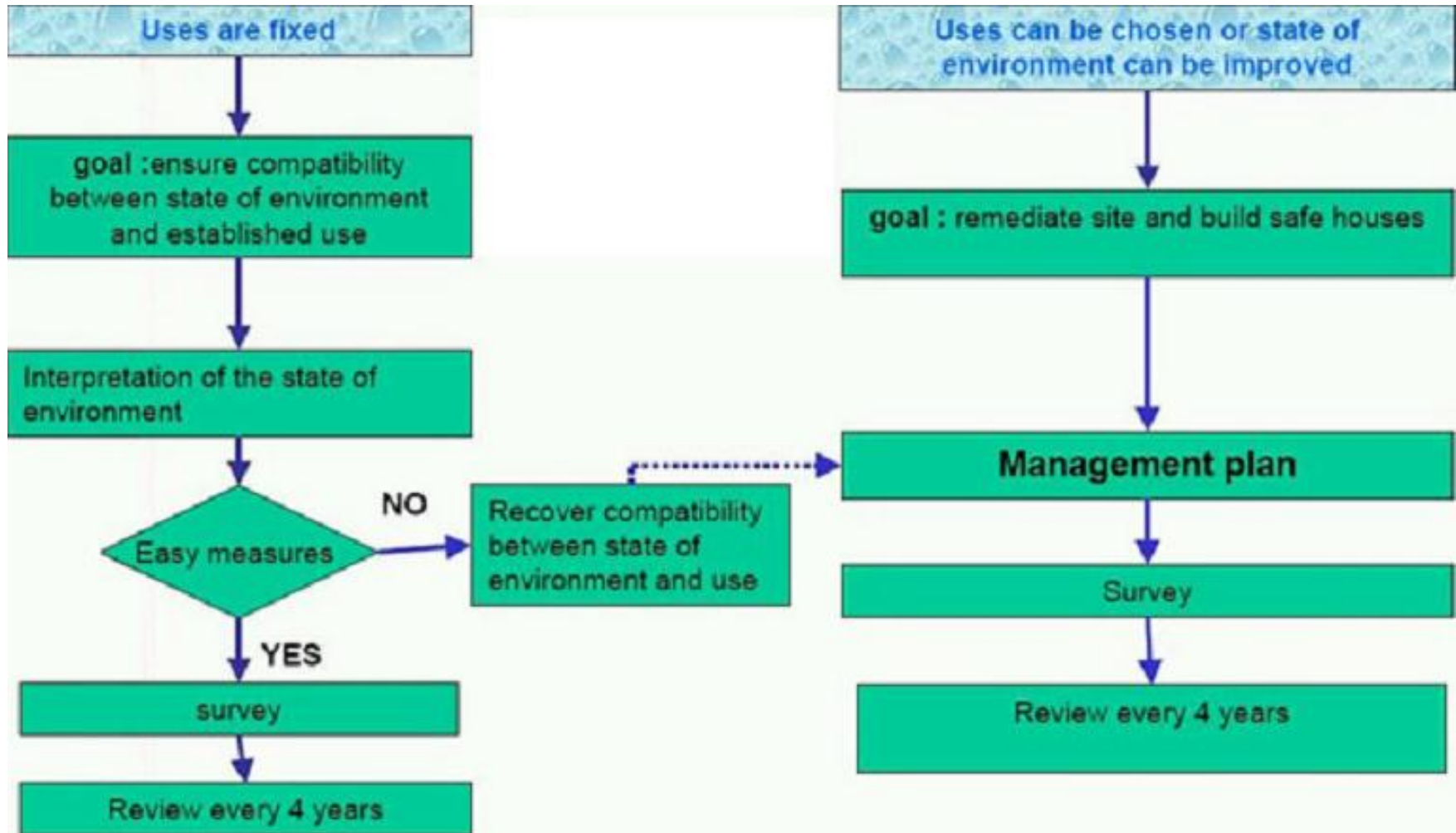
- The industrial past, risk management based on the use of the site
- The futur : an active prevention of future contamination, with the precautionary principle

How to deal with a source of pollution ?

- First remove of the source of pollution
- If not possible, then cut off the pollution pathways
- Risk assessment to know if the state of the media is compatible with the uses

=> management plan

Site management procedures



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The industrial past, risk management based on the use of the site

- Fit for use principle
- Cost and benefit analysis, as for installations
- Possibility to let pollution on site when there is no transfer pathways or receptor (populations, natural resources)
- Keep the memories of the pollution (urban planning)



Active prevention of future contamination, with the precautionary principle

- New contamination should be prevented by all the classified installations laws and environmental monitoring as prevention tools
- If prevention fails, the new contamination should be treated under the plant authorisation permit.
- The "polluter-pays" principle is strictly applied
- In case prevention measures failed: damage must be repaired and site must be return to initial state

Land use restriction and contaminated land record

- Land use restriction and contaminated land record **can be included in the local urbanism documents** in case of :
 - Public utility easement (Servitude d'utilité publique)
 - Public interest project (Projet d'intérêt général)
 - Mayors information (Porter à connaissance)

Chain of liabilities

The "polluter–pays" principle is strictly applied.

The current chain of liability is:

- The last industry that is responsible under the law on Environmental Permits for industrial sites;
- By default, the last owner, when he can be considered responsible of the pollution as he did nothing to avoid it;
 - This chain of liability covers studies, monitoring, remediation work, and even costs associated with land-use restrictions (as a result of plant monitoring or residual contamination).
- The government when industrial sites whose owners fail to fulfil their obligation to remediate and can lead: the role of the government is limited to ensuring the safety of the site.
 - Strict limitation of the scope of public action to ensure the safety of sites alone guarantees that the system is not perceived by liable parties who might not wish to comply with requirements to remediate as an opportunity for non-compliance or even a right.

Two times of actions

Policy consists on :

- General rules to deal with pollution during the activity of the site. Site closures is a time to ensure that site contamination is dealt
- Specifics rules to ensure that there is no pollution that has been forgotten and present risks (institutions for children on contaminated land)

Soil assessment procedure in institutions for children and teenagers

- No new institutions for children and teenagers near or on a previous industrial sites that can be contaminated
- Risk assessment of the institutions built near or on a previous industrial sites that can be contaminated (see Tina presentation)



National standards for environmental consultants on site remediation NFX31-620

- Improve the practises of the environmental consulting companies
- National standard NFX 31-620 specifies
 - required level on studies, expertises and management assitances
 - required level on engineering on remediation work
 - required level on perform work on remediation
- 26 environmental consulting companies with certification

Financial guarantees in case of bankruptcy

- Guarantees for the expenditure to tackle the risk when site's closure:
 - disposal of hazardous substances and wastes,
 - environmental monitoring,
 - restrict the acces with fences,
 - suppression of explosion and fire hazards
 - The amount is stipulated in the permit delivered by the prefect (French authority)
 - Guarantees are contracted by operators to be used at cessation of the activities by the prefect
 - Guarantees are used by the prefect, only if the operator does not tackle the risk of his site's closure
- The Prefect can stipulate additionnal guarantee to deal with a soil or groundwater contamination that cannot be remediated immediatly during the activity (as leakage under a building)
- This guarantee can be used only at the cessation of the activities, the cost correspond to the cost of the treatment of the pollution

Thanks for your attention

