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Soil environmental assessments on schools built on or in the vicinity of past industrial facilities

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► To cite this version:

Hubert Leprond, Ingrid Girardeau, Dominique Gilbert, Céline Blanc. Soil environmental assessments on schools built on or in the vicinity of past industrial facilities. AquaConSoil 2013, Apr 2013, Barcelone, Spain. hal-00787778

HAL Id: hal-00787778

<https://brgm.hal.science/hal-00787778v1>

Submitted on 12 Feb 2013

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Paper Submission

Detailed paper information:

| | |
|-----------------------|--|
| Paper Title | Soil environmental assessments on schools built on or in the vicinity of past industrial facilities |
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| Topics | E.1 - Soil-water systems policy and regulation |
| | |

As part of French environmental framework (law of August 3, 2009), environmental assessments on establishments accommodating children and adolescents were involved by the French Ministry of Environment. Assessments are carried out on schools built on or in the vicinity of potentially contaminated sites by past industrial activities. They are framed by the circular of May 4, 2010 co-signed by the French Ministry of Sustainable Development, the French Ministry of Education and the French Ministry of Health.

This is a major step towards a new way of approaching soil pollution policy considering both soil quality and their use to trigger investigation. This work draws the first conclusions of the existence of a potentially polluted soils register and demonstrates how to use it effectively.

The selection of schools was performed by crossing the schools database with the past industrial activities inventory (BASIAS). Around 2000 establishments on the entire country were identified. Although the BASIAS inventory provides information on past industrial activities, it does not enable to know the current soil quality. For this purpose, soil assessments must be done on the selected schools. The French State funded a five-year budget of about 50 million euros for this task.

In order to ensure the homogeneity of the action and costs control at the national level, BRGM was put in charge of the technical organisation of the assessments.

Assessments were designed to control if pollution that may be present in the soil, does not deteriorate the air inside the buildings, playground areas for young children, soil and drinking water. Taking into account the uses of schools facilities and contamination that may be found in soils and groundwater, assessments are made on the relevant media of exposure:

- if non-volatile pollution are involved, surface soils controls are carried out in establishments accommodating children under 7 years if accessible bare soils are identified,
- if volatile pollution are involved, controls of soil gas and air in underfloor spaces, if any, are made. They are followed by controls of indoor air quality in case of trouble.
- if necessary drinking water quality in the distribution network is controlled.

Three categories of post-assessment situations are defined.

- Category A: the soil under the establishment poses no problem
- Category B: the current layout and uses of the establishment allow to protect people from exposure to potential or proven pollutants.

However information management procedures must be set up to explain what must be done if the facilities or uses of the school deteriorate or are modified.

- Category C: results reveal the presence of contamination that requires the implementation of technical management or even health protection measures.

Assessments results and ranking of establishments are examined by a national working group composed of representatives of all involved ministries and their technical support.

The assessments campaign started in summer 2010 on a first list of 900 establishments. [Eventually](#), it will run on the entire country over a period of five years to involve a total of some 2000 establishments.

On July 2012, assessments were launched on 750 establishments. About 300 establishments have already been completed. 219 schools are in category A, 64 in category B and 4 establishments in category C. The 4 cases in category C are for contaminated soils by heavy metals that are accessible to young children. The implementation of health protection measures was not necessary.

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