Ecotoxicity in soil and water

More efficient detection

It is often the case that you inherit contaminated industrial land or polluted effluent from the past. However, you are responsible for remedying the situation. Obviously, you would like to do this as inexpensively as possible, but before you can, you need to know exactly what you are doing.

Appropriate detection by means of living organisms

The usual way to check soil and water purity is to measure the chemical parameters. However this method only gives a part of the picture. Some substances are not traced at all and the combined effects of harmful substances can be missed altogether. You can avoid these difficulties by testing with living organisms. Although these tests are prescribed in a European Directive they are not yet compulsory in Belgium. However, our government is under pressure to amend its legislation accordingly.

Ecologically an economically realistic remediation

Laborelec is experienced in the use of living organisms to test the real effects of soil and effluent pollution. We know which organisms to use under which circumstances, and will tailor our analysis technique to suit your specific operations. We interpret the results using tried and tested methods, and recommend an ecologically and economically realistic remediation of soil and water.

LABORELEC

The technical Competence Center
in energy processes and energy use.
From innovation to operational assistance.

We will think along with you to find the most appropriate detection methods, so that your company will be fully prepared if more stringent standards are suddenly imposed under Belgian legislation.

■ Chemical analyses are not enough...

- ... because some of the substances that are not analysed may actually be harmful to organisms.
- ... because they do not cover the interaction between substances. This interaction may simply be the sum of the separate effects (1+1=2), but can also generate stronger effects (1+1=5). In some cases the effect may be weaker (1+1=0,5).
- ... because the presence of a harmful substance does not always constitute a danger to living organisms. For example, a substance that adsorbs easily may bind to sediments, and so living organisms are not exposed to it.

■ Selecting living organisms

To select the most appropriate techniques, Laborelec looks at a number of different criteria: scientific aspects, such as the reproducibility of a test, and economic concepts, such as financial feasibility.

■ Water and soil

We can use living organisms to detect water pollution and soil contamination. Typically, we would use living organisms to check whether a soil remediation project has been properly implemented.

■ Appropriate organisms for each test

We always choose organisms suited to the purpose of the test. Therefore, for quick screening we use algae, and for more in-depth testing we use organisms higher up the food chain, such as water fleas or fish.

EAUX/5 UK 2002 - Responsible editor : Paul Lemmens

VCA**

Five reasons for you to choose Laborelec:

- you have one-stop shopping for your energy needs;
- you get access to more than 40 years of experience;
- you get rapid service with reliable solutions;
- you increase the profitability of your installations;
- you benefit from independent and confidential advice.

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