

## **How to approach the elimination of ecological burdens in brownfields**

One of the partners of the Brownfields Invest Czech conference in November was the company Earth Tech CZ, which has been providing environmental engineering and consulting services since 1991 and has many years of experience with issues pertaining to the regeneration of brownfields. We therefore sat down to discuss these issues with Ing. Vladimír Brenner, CSs., business manager of Earth Tech, s.r.o.

You have been involved in a range of important projects, whereas the project of decontamination of the Karolina zone in Ostrava is considered your company's greatest success. Can you tell us a little about that?

*The Karolina decontamination project was a success not only for our company, but for the whole team that took part in it. This team also included the companies OKD Rekultivace, SITA, Dekon Umwelttechnik and Aquatest. The actual removal of ecological burdens, which had accumulated on the nine-hectare site between 1842 and 1985 (when the coking plant was closed), was performed between 1998 and 2005, though the post-decontamination monitoring will continue until 2010 in the form of measuring the quality of groundwater. In total, 924 thousand cubic metres of water were pumped out and treated; 1.5 million tonnes of earth were removed; and 15,600 tonnes of contaminants and 830 tonnes of tar were eliminated, all at an average cost of 103 crowns per kilogram of contaminant.*

At the conference it was made clear that it is not always necessary to reduce ecological burdens to zero, but only to such a level that they do not affect future use. Was that the case with the Karolina project?

*Ecological burdens are never reduced to zero, but to below the limits that are stipulated for each contaminant on the basis of the valid regulations of the Ministry of the Environment. In this case, the predominant contaminants were tar, polyaromatic hydrocarbons, phenols, petroleum hydrocarbons, heavy metals and cyanide.*

What do the research of the site in question and the risk assessment indicate with regard to future investment?

*Detailed geological research and the risk assessment ensuing from it are essential for the estimate of the costs of decontamination works, which can greatly impact the budget for revitalising a brownfield, and thus possibly future investment as well. With regard to the fact that this is no simple matter and the sums required for decontamination in large projects are in the hundreds of millions of crowns, it is clear that the investor should choose only from a range of authorised firms that have extensive experience in the area of brownfields.*

The preliminary findings of the Brownfield Research Study indicate that only 6% of brownfields (by count) are ecologically burdened, whereas with 46% (by count) contamination can be expected. What do you think about these statistics?

*I think that these are just rough estimates. For many of these sites, there are no updated ecological audits performed by a reliable firm. Also, from our experience we know that in many cases the owner will conceal ecological burdens in order to make a site more attractive.*

Thank you for the interview.