

## What is the Foundation for the remediation of NS sites (Stichting Bodemsanering NS)?

Dutch Railways (Nederlandse Spoorwegen, NS) was privatized on 1 July 1995. All the railway sites owned by the government passed into the hands of two new owners: NS Vastgoed and ProRail. Most of the railway sites they acquired were thoroughly polluted as a result of more than one hundred and sixty years of railway history.



Soil pollution was suspected on a total of about 15,000 spots on railway yards throughout the Netherlands. The Dutch government realized that it could not possibly saddle the new landowners with a problem of this magnitude and expense. Therefore, the Ministry of Transport, Public Works and Water Management and the Ministry of Housing, Spatial Planning and the Environment, and NS Vastgoed and ProRail decided to join forces. They signed the 'Agreement on the remediation of NS sites' on 21 December 1995 and the Stichting Bodemsanering NS (Foundation for the remediation of NS sites, SBNS) was set up on 15 July 1996.

### Task

The task of the SBNS is to investigate and, if necessary, to remediate all severe cases of soil pollution on railway yards which arose in the period before the privatization of the NS. Every year, NS Vastgoed and the two Ministries raise the finances needed by the SBNS to carry out its work. The SBNS performs its task independently and objectively.

### Method

The SBNS contracts out practically all the investigative and remediation activities to consultancies, laboratories, contractors and soil remediation companies. As a result, the SBNS is the largest client for soil remediation in the Netherlands. The SBNS must complete more than 3000 site remediations by 2030. It has therefore standardized its methods: both the preparation for remediation, from detailed investigation to the final remediation plan, and the implementation have been elaborated and laid down in guidelines. Deviations from these guidelines do take place in some cases, for example if the pollution on a particular site is more complicated than anticipated. The motto of the SBNS is: 'standard if possible, customized if necessary'.

### Soil investigation

In the first five years of its existence, the SBNS had exploratory investigations carried out at more than 15,000 sites suspected of being polluted. Tens of thousands of soil and groundwater samples were analyzed by laboratories. Bit by bit, the picture of the soil pollution appeared. In 2002, the exploratory investigations had, to all intents and purposes, been completed. All railway yards suspected of being polluted in the Netherlands had been mapped.



### **Remediation**

The point of departure is that the soil remediation is use-oriented and cost effective. The essence of this approach is that the upper soil is remediated to the extent that it is suitable for the purpose for which it is to be used. The subsoil is remediated to the extent that no spread of contaminants can take place via the groundwater. Remediation of industrial sites therefore does not have to be as far reaching as, for example, that of gardens. In practice, this means that expensive, radical excavations are often no longer necessary. This has a lot of advantages: buildings and tracks can often remain in place and the above ground activities, such as rail traffic, are less subject to interruptions by remediation activities. The nuisance for the vicinity can often be limited, too. Furthermore, this approach promotes the invention of new, creative remediation techniques.

### **Communication**

Soil pollution often gives rise to agitation. This is perfectly understandable because people tend to be concerned about their health, the value of their houses and the inconvenience caused by soil remediation. The SBNS is very much aware of this, which is why it considers clear, open communication to be of paramount importance. In the event of projects located close to residential areas, the SBNS sends letters, in consultation with the

municipality and province, notifying local residents of the investigation and remediation in question. The SBNS also publishes articles in district newspapers and issues project newsletters. In addition, information evenings are organized prior to sweeping remediation projects.

### **More information?**

If you would like more information about the work of the SBNS, do not hesitate to contact: Stichting Bodemsanering NS, Contact: Gerard Stokman, PO Box 2809, 3500 GV Utrecht, the Netherlands, Telephone: +31 (0)30 298 83 10, Fax: +31 (0)30 293 29 17, E-mail: [e.y.p.](mailto:e.y.p.), Internet: [www.sbns.nl](http://www.sbns.nl).

