Stabilization of PFAS contaminated soil

PFAS contaminated soil at a fire station in operation

An operating fire station located in a suburban neighborhood in reality possesses private housing in South of Sweden, was expanding the facility for emergency vehicles. As a fire station handles hazardous products containing e.g. perfluorinated substances, a site investigation was carried out at a first step in the process, to document the environmental status of soil and groundwater.

3. Site Investigation

The results from the site investigation showed a total concentration of PFAS levels below the guidelines levels for industrial (L/S=2) and retail areas (L/S=8) levels found in the groundwater.

As a result of the findings, the local authority decided to remediate the site together with an investment in a new facility for the site. The necessary work was agreed. Instead of performing the remediation as well as a group and then to follow the decommissioning, Envityech segmented the remediation (Permatron Plus, which is now referred to as Permatron) in order to be able to follow the progress in the performance of the Permatron Plus.

As the cells are not located adjacent to the area (100 m cells) to transfer the cell to a nearby facility as a source of waste, and several different treatment options was needed to treat the treated waste. The Permatron Plus was chosen as the treatment option for this project. Since the Permatron Plus system is easy to operate and maintain, and the need for a specific number of cells were needed, the system was chosen.

In June 2016, Envityech won a private partnering contract for a demolition and renovation project for a former surface treatment industry. The contaminated area contained heavy metals such as copper, chromium, zinc, nickel and lead. Selected samples had been analyzed for PFAS, which had shown levels to moderate levels of PFAS. Contaminants had also been detected in the groundwater. Measured levels indicated very high levels of both metals as well as PFAS.

Remediation of soil and groundwater from a former surface treatment industry

In June 2016, Envityech won a private partnering contract for a demolition and renovation project for a former surface treatment industry. The contaminated area contained heavy metals such as copper, chromium, zinc, nickel and lead. Selected samples had been analyzed for PFAS, which had shown levels to moderate levels of PFAS. Contaminants had also been detected in the groundwater. Measured levels indicated very high levels of both metals as well as PFAS.