Long-term experiment with an AC corrosion penetration probe

By David Joos, SGK, Zürich, Switzerland

In relation with the investigations in the research projects on AC corrosion on pipelines, an AC corrosion penetration probe was installed at the SGK laboratory in the fall of the year 2013. The probe was exposed to critical conditions regarding AC corrosion. After only one year, the first penetration level of 1 mm was reached. Although the experiment was continued and the basin was sporadically watered again, further penetrations could never be detected subsequently. The experiment was finally terminated at the beginning of the year 2022. The observations are described and put into context with the present understanding of the mechanism of AC corrosion.