INP Reference

Grounding concept for fence systems in substations

LOCATION: Baden-Württemberg, Germany

SYSTEM/TECHNOLOGY: Grounding concept

SERVICES: Basic-engineering and pre-engineering, Solution development / Feasibility studies

INDUSTRY BRANCH/TYPE OF PLANT: Transmission & Distribution

CLIENT: TransnetBW GmbH

ACTIVITY PERIOD: 2021 - 2023

Project description

In all electronic plants, especially in high-voltage plants, suitable grounding concepts are necessary to protect persons from the dangers of dangerous voltages in the event of a fault in the plant.

In the course of maintenance measures, the existing fencing systems in substations are to be renewed and integrated into the grounding concept.

For this purpose, inventories and ground resistance measurements were carried out in the substations and the extension of the grounding concept was determined in a simulation, in accordance with the requirements of the currently valid standards and guidelines, in particular those of DIN VDE 0101-2.

INP Services

- On-site measurement of the ground resistance in the substation, the instrument used is „GEO Grounding Meter Kit Fluke 1625-2“
- Review and evaluation of as-built documents
- Engineering: Calculation, simulation and design of the grounding concept for the fence system (engineering includes the preparation and review of all necessary calculations, drawings, dimensioning and verification). The simulation of the grounding network is done with the software XGSLab
- Verification of conformity to standards
- Documentation

POINTS OF CONTACT

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