INP Reference

ZMS – 6 kV Medium-Voltage Switchboard

LOCATION: Schwandorf, Germany

SYSTEM/TECHNOLOGY: MS-GIS-switchboards

SERVICES: Detail engineering, Installation supervision

INDUSTRY BRANCH/TYPE OF PLANT: Transmission & Distribution

CLIENT: Zweckverband Müllverwertung Schwandorf (ZMS)

PROJECT SIZE: > € 850,000

POINTS OF CONTACT

Michael Kopp
Leiter Projektmanagement
INP Deutschland GmbH
Werkstraße 5
67354 Römerberg
Deutschland
Tel. +49 6232 6869-0
michael.kopp@inp-e.com
www.inp-e.com

Tasks

In the Schwandorf waste recycling plant, the previous 6 kV MS-AIS switchboard was replaced by a 6 kV MS-GIS switchboard corresponding to the state-of-the-art. The 6kV MS-AIS switchboard comprised a single busbar and was connected via a longitudinal coupling. Furthermore, it served for feeding seven LV switchboards, two induced draught fans, one secondary fan and one feed water pump.
The switchboard was replaced by a DSS system and installed as a SF6 gas-insulated switchboard. The modern 6 kV MS-GIS switchboard was set up during ongoing operation of the existing system. The connection to the control system is realized via an IEC 61850 interface, using SICAM devices.

INP Services

The following tasks will be implemented in close cooperation with customers:

- Cost estimate for determining the fee calculation for the power phases and
- project management according to HAOI 2013
- Cost estimate and cost calculation according to DIN 276
- Compilation of a bill of quantities for the requirement specifications of the
- 6 kV MS-GIS switchboard
- Formulation of a cable reconnection concept
- Requirement specification for the switchboard’s double floor
- Description of the service scope for commissioning
- Advice for selection of the 6 kV MS-GIS switchboard
- Establishment of the rough schedule
- Offer evaluation and assignment recommendation
- Installation monitoring
- Commissioning monitoring

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Technical data

- Rated voltage: 7.2 kV
- Operating voltage: 6 kV
- Rated short-time power-frequency withstand voltage: 20 kV
- Rated lightning-impulse withstand voltage: 60 kV
- Rated short-time current: 40 kA /1 s
- Busbar rated current: 2500 A
- 18-panel switchboards system consisting of:

- one infeed panel
- one regeneration panel
- nine transformer outgoing panels
- one emergency power diesel outgoing panel
- two measuring panels
- two transverse coupling panels
- two longitudinal coupling panels