



PROJET

PROJECT DATE:

December 2007

DESCRIPTION:

400 kV electric switchyard
Client: Confidential
Gravelines nuclear power plant
100% modelling
230 linear metres

RESOURCES:

2 engineers
2 Trimble GX scanners

CONDITIONS:

4 days of surveys
H0-B0V qualification
Qualified personnel

RESULT:

Autocad modelling
64,000 objects
43 scanner positions
Accuracy to 20 mm

3D LASER SCANNING OF AN ELECTRIC SWITCHYARD

One of the European most important switchyard is located in north of France. For the protection of equipment against the saline atmosphere and corrosion, the entire facility is shielded and insulated by SF6 gas.

Maintenance of the site requires the particular attention of the engineering office, who operate the installation.

Further to the completion of the requisite H0-B0 training for access to the switchyard, 2 surveyors have scanned the entire facility, notwithstanding the challenging meteorological conditions. 2 3D scanners were required for the measurement of each item of equipment (circuit-breaker, busbar, disconnector, isolator, sensors).

The cloud of points recorded in 4 days generated 4 months of modelling for the production of a 3D as-built model of the installations. Over 64,000 objects have been modelled manually in Autocad format with a guaranteed accuracy of 2 cm from end-to-end of the 230-metre installation.

The engineering office will now have access to a complete and accurate model of the electric switchyard, enabling to follow-up maintenance and revamping studies.

The transition from 2D plans (section diagrams, plan views) to the 3D model will improve site maintenance.

For more information, please contact the Urbica team.

