

# Nuclear Plant



## PROJECT

### PROJECT DATE:

August 2007

### DESCRIPTION :

Fessenheim nuclear power plant  
2 ASG rooms  
IPS equipment  
Scanning and modelling

### RESOURCES:

2 engineers  
1 Trimble GS 3D scanner  
4 operators for modelling

### CONDITIONS:

Nuclear power plant in service  
Urgent operation  
First operation in a nuclear power plant  
Delivery in 2 weeks

### END PRODUCT:

2 x 3D models in Microstation format  
Overall accuracy to 20 mm

## 3D LASER SCANNING AND PDMS MODELING OF TWO ROOMS IN THE FESSENHEIM NUCLEAR POWER PLANT

EDF does not compromise on the safety of its installations, particularly in the case of the Fessenheim PWR, the oldest plant in the series.

ASG rooms are dedicated to the supply of generators in case of a breakdown of the power plant. In response to anomalies observed in these two rooms (2 x 900 MW units) in July 2007, EDF was obliged to take quick action for the conduct of analyses for the overhaul of the equipment concerned (turbine-driven pumps). ERAS, who were contracted to undertake this work, concluded that the addition of a retention tank for abnormal condensate would be an appropriate measure.

But where was this facility to be installed in an already over-crowded room? 3D laser scanning and "as-existing" modeling of all the objects present on the

site have allowed the highly accurate calculation of the position of the new tank and the means for its attachment. It was essential that this sitting should not obstruct access to any valve or filter.

The 3D model, delivered in DGN format and integrated into PDMS by ERAS within 15 days, has allowed the production of reliable analyses based upon the actual situation, and which far exceed the scope of (frequently obsolete) construction plans.

Since the completion of this project for ERAS, Urbica has specialized in 3D laser scanning on nuclear sites.

For more information, consult the Urbica team.

