



## PROJECT

### PROJECT DATE:

March 2009

### DESCRIPTION :

Nogent-sur-Seine nuclear power plant  
2 turbine halls  
Clash detection  
"As-built" plans for the positioning of  
new systems

### RESOURCES:

2 qualified engineers  
1 Trimble FX scanner  
1 day per unit

### CONDITIONS:

2 days of scanning  
4 days of processing  
Nuclear power plant in service

### END PRODUCT:

Point cloud (6 billion)  
50 scanner stations  
Overall accuracy to 15 mm

## 3D POINT CLOUD IN A NUCLEAR POWER PLANT

The installation of new systems in a turbine hall is not an easy task for design office engineers specializing in nuclear maintenance. The description of supports, seismic withstand calculations, the siting of NPIs, pressure build-up in pipes, etc. – every aspect has been scrutinized by EDF. ITENA, a subsidiary of Tractebel and Endel, opted for 3D scanning as a means of ensuring a faultless project with no unpleasant surprises.

The project involved the installation of new lines at levels -4m and 0m in the turbine halls, whilst avoiding any clash with existing equipment. Urbica, as a specialist in 3D laser scanning in the nuclear sector, delivered an exhaustive and accurate point cloud to ITENA for the entire scheduled route of the new

monochloramine system. Even before the modeling stage, this point cloud has allowed the following:

- ✓ recording of dimensions/ measurements
- ✓ 3D visualization of the installation
- ✓ clash detection between the project and the existing situation
- ✓ the delivery of alternative solutions in case of unfeasibility
- ✓ time-saving in a restricted schedule.

As ITENA does not yet have the tools for the processing of point clouds, Urbica visited the client's premises to provide support in the handling of this new type of file (over 2 days). Who better than Urbica to undertake the interpretation of point clouds?

For more information, consult the Urbica team.

