

Successful replacement of the steam generators and power increase at Doel 2

On July 16th 2004 unit 2 of Doel nuclear power plant reached its new power level following the replacement of its steam generators

The replacement of Doel 2's steam generators is the sixth in a row of such projects performed by Tractebel Engineering for Electrabel. Besides replacement of the SGs, the other ambitious aim of this project was to increase Doel 2's power by 10 %.

Compared to the previous replacement operations designed and carried out also under Tractebel Engineering leadership, this operation introduced a considerable new challenge: indeed to avoid important modifications to the internal lay-out of the reactor building, the old SGs were removed and the new SGs introduced through temporary openings in the roof of the primary containment (a 25 mm thick steel sphere) and secondary containment (a 70 cm thick reinforced concrete structure).

On May 7th 2004 at 21H54 Doel 2 was disconnected from the grid and the replacement operations started.

Scheduled for reconnection on July 20th, the unit was actually put back on line on July 12th at 16H21. It reached the full new power on July 16th.

The outage duration was 65 days for a 15 days SGR duration.

The replacement operations went very smoothly thanks to meticulous preparation of all the activities by Tractebel Engineering and Electrabel, and a very professional cooperation of contractors.

Importantly, throughout this project there were no accidents, no mechanical failures and no radioactive contamination incidents incurred. Another salient fact being that the overall dose of SG replacement work was kept as low as 195.48 man.mSv.

For Electrabel this marks a significant milestone in the life of Doel 2.

In addition to overall project coordination Tractebel Engineering was in charge of the Safety Analysis and the Licensing.

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