world nuclear news

Simulator delivered for China's HTR-PM

04 January 2016

The full-scope simulator for the demonstration HTR-PM high-temperature gas-cooled reactor plant under construction at Shidaowan in China's Shandong province has officially entered operation.

The full-scope simulator for the HTR-PM (Image: CGN)

China General Nuclear (CGN) announced on 28 December that its China Guangdong Nuclear Simulation Technology subsidiary completed the on-site installation and commissioning of the HTR simulator on 20 December. A site acceptance certificate was signed on 24 December, marking the official start of use of the simulator system.

CGN said the simulator would mainly be used for the training and licensing of nuclear power plant operators, as well as for supporting emergency exercises, and plant design and operation verification. Chinese regulations specify that all nuclear power plants incorporate a simulator, which must be available at least one year prior to the plant's start up to enable sufficient operator training.

Simulators are a vital piece of equipment for training plant operators, both at the start of their careers and for their continuing training. The Shidaowan simulator features a complete replica of an HTR plant's control room, including the instrumentation and control system.

Work began on two demonstration HTR-PM units at China Huaneng Group's Shidaowan site

in December 2012. China Huaneng is the lead organization in the consortium to build the demonstration units together with China Nuclear Engineering Corporation (CNEC) and Tsinghua University's Institute of Nuclear and New Energy Technology (INET), which is the research and development leader. Chinergy, a joint venture of Tsinghua and CNEC, is the main contractor for the nuclear island.

The demonstration plant's twin HTR-PM units will drive a single 210 MWe turbine. It is expected to start commercial operation in late 2017. Eighteen further units are proposed for the Shidaowan site, near Rongcheng in Weihai city.

A proposal to construct two 600 MWe HTRs at Ruijin city in China's Jiangxi province passed a preliminary feasibility review in early 2015. The design of the Ruijin HTRs is based on the smaller Shidaowan demonstration HTR-PM. Construction of the Ruijin reactors is expected to start in 2017, with grid connection in 2021.

Researched and written
by World Nuclear News

ISSN 2040-5766