

Chinese safety checks



11 August 2011

Chinese safety authorities have completed an intial survey of nuclear safety at the country's power plants. Details on the results and proposed improvements are to be made public in the middle of next year.

In response to the Fukushima accident, it was decided by China's State Council to implement a program of comprehensive safety inspections for the country's operating nuclear power plants.

Of immediate relevance are the circumstances of the country's five operating nuclear power plants (Daya Bay; Tianwan; Qinshan Phases I, II and III; and Ling Ao Phases I and II), which together host 14 reactors. These were designed and sited much more recently than the Fukushima Daiichi units, the oldest having started up in 1994.

China also has another 25 large reactors under construction at the head of an open-ended program currently counting over 200 units at various stages of proposal and planning. No more approvals for construction will be given until the Post-Fukushima safety checks have been carried out.

A report from the China Nuclear Energy Association (CNEA) described the approach taken during surveys at four sites, Daya Bay, Qinshan, Tianwan and the forthcoming Fangjiashan where the first reactor should start up at the end of 2013. It did not, however, put a timeline on when construction approvals may resume.

Teams composed of senior figures from the National Nuclear Safety Administration, the National Energy Board, the China Seismological Bureau and the Academy of Sciences were dispatched to each of the plants. They interviewed managers and technical experts with full access to the site and documentation, CNEA said.

For the Chinese nuclear industry as a whole, authorities will focus attention on a handful of key areas, said CNEA: ensuring proper quality control in the construction and operation of nuclear power plants; ensuring that the full scope of external events such as natural disasters has been taken into account; and ensuring plants can deal with multiple extreme incidents and floods in particular. Major topics within each of these will be plant blackout scenarios and the provision of back-up power with appropriate redundancy. Systems for emergency response and environmental monitoring are also likely to be stepped up significantly.

Attending the Qinshan tour, vice-minister for environmental protection, Li Ganjie, stressed the impact of the Fukushima accident on the environment, the economy and public life. He said it carried a profound lesson for China, while another team leader from the ministry stressed the importance of public trust for industry to effectively benefit from nuclear power.

Deputy director of the National Energy Board, Qian Zhimin noted China's position as the world's leading consumer of energy. He said the continuing development of nuclear power will have an important influence on the country as a whole.

While some initial improvements have already been identified and planned for implementation, the CNEA report said, the expert teams are now to conduct further research for the main part of a public report slated for publication in May or early June 2012.

Researched and written by World Nuclear News