

Prepare for a new nuclear industry



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The nuclear power industry will change in the years after the Fukushima accident but the need for the technology will not, said industry leaders today in Chicago at the first major conference since the crisis began.

Opening statements at the World Nuclear Fuel Cycle 2011 conference included grave warnings of the hard road ahead for nuclear power. "We must admit that we represent a technology that has frightened a great many people," said Richard Myers, vice president of policy development at the US trade group the Nuclear Energy Institute. "But the industry can explain the unfounded nature of this fear, and provide the data to prove it is so."

Immediate political and regulatory responses to the accident have varied and it still remains to be seen how safety requirements may be revised. Despite this uncertainty, World Nuclear Association director general John Ritch noted: "In the years preceding Fukushima, most major nations in the world reviewed their energy and environment policies and, with few exceptions, came inexorably to the same conclusion: that, for reasons of energy independence and environmental responsibility, nuclear power must play a central role in their energy strategies for the 21st Century."

Most nations have announced the intention to review safety arrangements on the basis of the facts of the Fukushima accident as they become known. For some this means new build projects could be delayed for several months and engineering costs could rise.

Only one country seems to have embarked on a route truly damaging to its nuclear sector: Germany. One delegate spoke of personal doubts that the eight units shut down by Chancellor Angela Merkel will ever restart while politicians compete to be seen as the most green.

On a technical level the industry must meet safety challenges on a new plateau: to survive combinations of extraordinary events beyond their design basis, including natural disasters, terrorist attack and as-yet unimagined disasters and difficulties in their locality. The limits of legally required preparation and response are to be rewritten.

Furthermore, regulators will focus on the ability of a single company to tackle a nuclear emergency at a time when the infrastructure of its nation has been compromised. Commercial cooperation with government will be one aspect of that. Operation during extended plant blackouts and under difficult radiological conditions will be studied and it is sure that emergency power arrangements are to be hardened in many countries.

Separate from the considerations of governments, industry mechanisms exist to address the challenges in the form of the US Institute of Nuclear Power Operations and its global sister organisation the World Association of Nuclear Operators. These are already offering top technical assistance to Tokyo Electric Power Company based on the combined operational experience of the global industry.

Ritch underlined the fortification these institutions will now undergo and that they must be combined with clear international messaging to the general public worldwide: "In the aftermath of Fukushima we must meet the further and compelling challenge of explaining just what happened at the Daiichi plant and presenting, in accurate and persuasive terms, the measures by which the industry is acting on a broad front to fortify all needed barriers against the recurrence of any such accident, anywhere."

*Researched and written
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