

## News Release

### Can the UK bridge the gap in nuclear power?

IMechE puts engineering skills under the microscope

16 March 2009

Dr Sue Ion, one of the country's leading lights in the energy arena will be debating the controversial issue of the energy gap time-bomb in **London on 24 March** – and if the impending skills shortage will cripple plans to build a host of new nuclear power plants before any have even got off the ground.

The Government is currently pressing private companies to build 10 new nuclear power stations but fears in industry are mounting that the predicted tens of thousands of engineers needed will be a huge struggle to find. Dr Ion, former Director of Technology at British Nuclear Fuels (BNFL) and ex-President of the British Nuclear Energy Society, will tackle this challenge at **Nuclear Power: From Last Gasp to Second Wind**, an event at the Institution of Mechanical Engineers (IMechE), 1 Birdcage Walk, London.

Speaking ahead of the event, Dr Ion, a materials engineer, said: "A new build initiative in the UK has the potential to regenerate a significant manufacturing base and estimates have shown that a fleet of new reactors would be worth £30bn to the economy, as UK based companies become part of a growing global supply chain. The tradition in Britain has been to recruit engineers from other sectors, such as mechanical or civil, instead of offering specific nuclear engineering courses. Until recently, British universities had not offered nuclear power modules for 20 years, so engineering students had little or no training at all, which has added to the challenge in the skills factor. There has been no new industrial activity in this country for over two decades and it seems we make such an issue about deploying power stations, whereas other countries just get on with it."

In spite of a controversial past – incidents including the near melt-down at Three Mile Island, US in 1979 and Chernobyl in 1988 damaging its public profile – nuclear power is becoming a serious contender as an energy source that can help cut greenhouse emissions. However, with the Government urging companies to build the first plant by 2018, the UK's capacity to build a new generation of power stations could be at great risk by a shortage of engineers.

Dr Ion will also discuss the changes that have taken place in the nuclear industry – from its enthusiastic beginnings, through darker days and to its current popularity as a potential solution to climate change. "There has been a renewed confidence in nuclear energy as a major solution to climate change and this lecture will set the challenges ahead in an energy hungry world where expectations for successful nuclear power programmes grow even higher. The Private sector, which will be responsible for the investment in new nuclear stations, needs to have greater confidence in political planning and the regulatory regime in order to take new build forward." she said.

Recent trends show that the UK needs to double its numbers of science, technology, engineering and mathematics graduates to compete with international countries and attract investment for new technology.

Brian Robinson, IMechE's Head of Energy, said: "The industry currently employs 50,000 people\* and figures show the nuclear industry must attract between 5,000-9,000\* new graduates over the next 10 years, just to maintain current demand and not including new

build. The Government has a role to play in recruiting young people to the industry and money should be invested in bridging that communication gap. Engineers will need to be trained so decommissioning and new build programmes can take place, and if we cannot find the engineers then importing them from abroad – at a costly expense – is our only option.”

According to Cogent Industries, the workforce will have to be re-trained in decommissioning nuclear power plants by 2015 to meet the demand. By the same year between 3,400 and 11,500 new engineers will be needed, but this could even rise as high as 16,500 if people take early retirement.

Dr Brian Murphy, Director of Research at Cogent (Sector Skills Council for Chemicals, Nuclear, Oil and Gas, Petroleum and Polymers) commented: “If we replace current nuclear generating capacity then skills will need to be transitioned from power generation to decommissioning and back to new generating capacity once again. If we go beyond replacing current capacity, there will be major skills gaps to address. 40 % of the workforce will soon be retiring and they hold 70% or more of the experience – and the induction time to train new workers can take years. We have to prepare now for this challenge.”

The event is free, open to all and starts from 5.15pm on 24 March.

\* Statistics from Cogent Industries



Cap: Sizewell B, the UK's most modern nuclear power station

**ENDS**

### **Notes to Editors**

- If you would like further information please contact the IMechE Press Office on 0207 304 6992/6888 or email [media@imeche.org](mailto:media@imeche.org). The lecture starts at 5.15pm. Media should contact the IMechE for any advance interviews/filming.
- The Institution of Mechanical Engineers (IMechE) was established in 1847 and has some of the world's greatest engineers in its history books. It currently has around 80,000 members in 120 countries representing mechanical engineers involved in a diversity of fields such as the automotive, rail, aerospace, medical, power and construction industries to name a few. Visit [www.imeche.org](http://www.imeche.org) for more information.