Energy
Volume 165 Issue EN3

Book review
Earp

ice | proceedings

Proceedings of the Institution of Civil Engineers
Energy 165 August 2012 Issue EN3
Page 160 http://dx.doi.org/10.1680/ener.11.00023
Paper 1100023

ice
Institution of Civil Engineers
publishing

Book review

Rationality and Ritual: Participation and Exclusion in Nuclear Decision-making

Brian Wynne. Earthscan, London, UK, 2010, ISBN 978 1 8497 1161 6, £24.99, 240 pp.

This is a reprint of a book first published in 1982. It purports to be a deeply scientific evaluation of the science–policy interface and uses the original Windscale inquiry of 1977, which proposed the thermal oxide reprocessing plant (Thorp) as the main vehicle to focus its arguments. It is a very difficult book to read introducing a number of complex social/scientific mechanisms of interaction in very quick succession. It will be of interest to those wishing to do a PhD in such subjects both for its content and for its extensive list of references – 28 pages (which is possibly the best part of the book) and list of abbreviations, but it is difficult to envisage its application directly into a business or commercial situation.

The book opens with a very good foreword by Gordon MacKerron, in which he acknowledges both the subtlety and complexity in Wynne's arguments. He goes on to use his experiences as the chair of the Committee on Radioactive Waste Management to illustrate how the arguments first voiced in the 1982 edition are still valid today. However, he fails to acknowledge that the issues surrounding the safe disposal of radioactive waste have technically been well known and understood by the nuclear industry for many years and are already practised in some countries. What was missing in the UK was the way of handling this in a socially acceptable way, which was the aspect his committee addressed well, introducing the new concept of 'volunteerism'.

Although the book is written around seeking an understanding of the complex processes of decision making in areas in which technology and socio/politico/economic arguments come together (in a public inquiry setting), it is also clear that the author feels that the outcome of the example inquiry (Windscale) was wrong, which would seem to portray an antinuclear stance. He attempts to rationalise this early in the book by a statement: 'Thus, although I criticize the Windscale inquiry process, this emphatically does not mean that I think a 'better' process would 'naturally' produce an anti-Thorp decision.' This would seem to imply that the author thinks the decision to build Thorp was wrong, a position for which there is no definitive evidence. Although it has had a troubled history, it must not be forgotten that this was a world-leading highly innovative plant that has actually operated successfully for short periods and is likely to continue to do so. Particularly as other countries around the world (notably the USA, France and China) are now pursuing reprocessing because of the benefits it will deliver in terms of fuel for the future and the minimisation of waste volumes, why should the UK and Thorp in particular not 'cash in' on this?

Approaching what is a very important topic of rationalising complex socioeconomic and technical interactions in a partisan way (i.e. from an overtly antinuclear stance) detracts from what could be a very significant piece of work. The whole position is further 'weakened' by the selective use of wrong data; for example it is claimed that the 'over 100 tonnes plutonium' derived from Thorp is weapons grade, which is not so – it is reactor grade (it is a mix of isotopes Pu239, 240, 241, etc.). In addition, the book states that 'surveys continue to show that a majority of people would prefer alternatives to nuclear'; again this is not so, the latest MORI polls (2010) show that approximately 50% of the population see nuclear as a main option to combat climate change and deliver secure electrical energy, with over 70% seeing nuclear as an integral part of the energy mix.

The book by its selection of phraseology seems almost to question why violence was not used in the UK to protest against the Windscale inquiry: 'There was no violent anti-nuclear protest in the UK, only verbal and passive protest, no violence only marginal forms of direct action. In France and Germany at the same time, by stark contrast, protesters against nuclear power were being killed by police, in mass protests at Gorleben (Germany) and Creys-Malville (France) nuclear sites'.

Further examples of problematical phraseology occur and in one case it is even referred to in the inquiry (Brian Wynne the author of 'Rationality and reason' was directly involved) in which a question asked by the author prompted the judge to assume an unsafe situation (p. 162), a clear example about the potential for the inappropriate use of wording to trigger an equally inappropriate reaction.

Throughout the book the author is very critical of British Nuclear Fuels Ltd. (BNFL) (and other nuclear establishment organisations) being late with evidence or submissions, using provocative statements, and so on. However, this is not often balanced with positive statements when the company did the right things – for example (p. 134) 'BNFL understandably complained that they could not cross examine this new evidence'. Such a balance would better reflect the position that ultimately BNFL were successful and Thorp was built.

Overall, the book is a great testimony to the need for changes to the inquiry system. Although not stated explicitly, it is clear that inquiries such as that at Windscale are very expensive for those involved and ultimately for the tax payer, and yet the book questions their validity in reaching appropriate decisions. Even so, no changes to the inquiry system were programmed and the Sizewell B inquiry followed a similar path to that for Thorp, with some 300 days of evidence with less than 30 being on local issues. This government has now brought about necessary changes such that inquiries are targeted at local issues and do not stray into big picture policy matters. If this book in some way contributed to this change of separating policy decisions (as those for government) from tactical decisions for the inquiry then it has indeed managed to separate ritual protest from rational consideration of the socioeconomic/technical interfaces, which apply to any major project whether nuclear or some other technology.

John E. Earp