

Professional misconduct

The latest inquiry at Three Mile Island raises urgent questions about professionals' protection.

CLEANING up the damaged reactor at Three Mile Island in Pennsylvania will cost more than mere money. So much is clear from the dispute that has broken out between the Nuclear Regulatory Commission and General Public Utilities Corporation, the utility that briefly operated the reactor and which is now responsible for putting things right (see opposite). The fact that an interim report by the commission into allegations of bad management has also, in passing, criticized the conduct of the commission's own representatives on the site has evidently not laid to rest the utility's sense of indignation, but last week's hot protest from the utility will probably seem mild when Admiral William Rickover eventually pronounces. Now that the utility has conceded that some of the detailed procedures laid down by the commission were not followed to the letter, the argument will for the time being centre on the question whether these procedures were strictly necessary. Nobody should be surprized if it turns out that they were not.

In all this noise, what may be the most important issue is in danger of being overlooked. The commission's investigation (not yet complete) into the clean-up at Three Mile Island was made necessary because employees on the site complained that the utility was cutting corners in its operations. The chief whistleblower was Mr Richard Park, technically an employee of Bechtel, which has contracted to remove radioactivity and damaged fuel from the reactor. As a member of the site operations staff, Mr Parks shared responsibility (defined by commission regulations) for making sure that procedures and pieces of equipment were not used without being tested in advance. There is much in Mr Parks's graphic affidavit, and in the circumstances that have since come to light, to suggest that he is a stickler for procedure, potentially as stubborn as a mule and a little of a sea-lawyer as well. But his complaints have been justified within the framework of the rules the commission had laid down, over-stringent though they may have been. Yet for his pains, Mr Parks seems to have been put under intolerable pressure by his superiors to sign documents which, as a professional engineer, he considered to be misrepresentations. The US Department of Labor has upheld the assertion that he was harassed. With all the accusations and counter-accusations there have been, it is probably best for Three Mile Island that Mr Parks should have been transferred to work elsewhere within Bechtel, but the question remains of how the rights and responsibilities of technical professionals employed by commercial or government organizations should be safeguarded.

In many ways, Mr Parks was lucky, for his position in the pattern of decision making at Three Mile Island had been defined by the Nuclear Regulatory Commission while his personal position is to some extent protected by labour legislation in the United States. The essence of the dispute between him and his employers was the adequacy of the tests that had been carried out to determine whether a lifting crane could be operated safely in the confined space above the damaged reactor. (There were fears that when the time comes to lift pieces of shielding steel away from the reactor head, these may fall into the damaged reactor core.) Only the commission's rule-book gave Mr Parks a kind of statutory right to raise these objections. In many other circumstances, his employers would have been within their rights to dismiss his worries out of hand, noting his propensity for making trouble in his employment records. And those, of course, are precisely the circumstances in which professional people (not only engineers) bite off their tongues, concealing their disagreement with what their employers plan for fear of prejudicing their own prospects or even their jobs. There is no way of telling how often circumspection of this kind leads to the marketing of products that are unsafe or unreliable and (in defence research) to the waste of taxpayers' money, but only the most innocent would suppose that the damage done to the

reputation as well as to the users of technology by fearful reticence is negligible.

It cuts no ice to say that professional people are required by the codes of their professions to speak up whenever they are required by their employment to carry out tasks they know to be professionally offensive. Even when, as in the practice of law and medicine, professional independence is fiercely protected by professional associations, where only small proportions of practitioners are in the pay of corporations and where the few who are can usually reckon to find jobs elsewhere, practice often falls short of perfection. (Physicians working for prison services or company lawyers defending workers' compensation suits seem especially prone to professional error.) Other professionals, engineers and scientists in particular, enjoy few of these benefits. If circumstances require that a person should either swallow his professional pride or put his job in hazard, the chance that he will follow the less honourable course is certainly not insignificant. Naturally, forward-looking employers recognize that there are commercial as well as legal dangers for themselves in riding roughshod over the opinions of professional advisers on their books; other employers are less squeamish.

So how is this state of affairs to be corrected? The partial solutions of the problem in medicine and the law cannot easily be extended to cover circumstances in which most members of a profession are salaried employees. Moreover, the ethical dilemmas in which professional engineers and scientists find themselves are rarely as clear-cut as those which afflict lawyers and physicians — as the experience of Mr Parks shows clearly enough. But this merely strengthens the reasons for believing that professional associations should be more active in providing for member engineers and scientists a means by which conflicts between a person's professional interests and the often different interests of his or her employer can be impartially (but confidentially) explored. Simply helping to remove an embattled professional's sense of isolation would often by itself be valuable. And it is high time that professional societies began to accumulate the detailed knowledge of individual cases of conflict on which more effective remedies may ultimately be based. □

Teller as negotiator

Dr Edward Teller, not known as a peacenik, is backing a sound proposal on defensive weapons.

DR Edward Teller is among the most ingenious and productive of physicists but also one of the most controversial. He is widely credited with having been the driving force behind the development of thermonuclear weapons in the 1950s (true), of being the chief agent of the downfall of J. Robert Oppenheimer a little later (probably untrue) and, in the early 1960s, a passionate advocate of nuclear weapons designed for use on conventional battlefields (a matter of public record). More recently, as a member of the new White House council on science and technology in the United States, Dr Teller is believed to have been the inspiration, if that is the right word, for President Reagan's advocacy in January of a programme of research aimed at the development of a watertight defence against ballistic missiles.

Dr Teller is also, however, a logical man, which no doubt accounts for a remarkable document signed by him and by Professor E. P. Velikhov of the Soviet Union at Erice, Sicily, on 23 August. At the end of a conference about the problems of nuclear warfare, the two men and Professor Antonino Zichichi acknowledged that they had agreed on the need for a careful simulation of the effects of a global nuclear war and for a careful study of the definition, characteristics and consequences of defensive weapons of the kind President Reagan has been advocating. The three signatories say they plan to set up a joint research group to deal with both questions and promise to "submit this agreement to our governments for approval and further actions". Both parts of the study are likely to be valuable, even if the record merely reinforces the general belief that near-perfect defence is not possible. □