

7.5 Major Accidents

There have been three major accidents at nuclear power stations. Each of these has not only had a major political effect on the future of nuclear power but has also driven home some important lessons that have greatly improved the safety of nuclear power plants. The political implications are beyond the scope of this text though it is clear that they will cause any future developments in the industry to be very conservative. For example, it is hard to visualize that any reactor with positive or near positive void coefficient of reactivity (see section 7.1.2) would be politically acceptable in the foreseeable future and this may eliminate many FBR designs.

The engineering lessons learned are, however, within the scope of this text and demand a description of all three of the major accidents. Of course there have also been a number of lesser accidents and mention of these will be made where appropriate.