

Contents

Regulatory requirements

2. Studies of the causes of mortality of radiation workers. <i>U. A. Reissland</i>	1
3. Aspects of the historical, philosophical and mathematical background to the statutory management of nuclear plant risks in the United Kingdom. <i>O. H. Critchley</i>	11
5. US Nuclear Regulatory Commission practices for assuring worker protection. <i>K. R. Goller</i>	19
6. Radiation protection of personnel engaged in maintenance work in nuclear power plants – precautionary measures to be taken during the planning period of power plants with a light water reactor. <i>J. Mehl</i>	25

Design and operating criteria

8. Development of radiological safety rules within the CEGB. <i>E. P. Goldfinch</i>	31
9. Recommendations to designers aimed at minimizing radiation dose incurred in operation, maintenance, inspection and repair of light water reactors. <i>W. Kaut</i>	37
12. Safety requirements for remote and continuous inspection. <i>J. C. Chicken</i>	43
16. Problem areas and research needs on radiation protection in nuclear power plants. <i>D. W. Moeller</i>	51

Design features

18. Chemical factors controlling radiation fields around water reactor coolant circuits. <i>G. C. W. Comley and D. J. Ferrett</i>	59
20. Concept and design of radiation shielding for nuclear power stations with pressurized water reactors built by Kraftwerk Union. <i>I. Geflitter</i>	71
23. Central Inertial Collector – a novel device for controlling coolant activity. <i>R. E. Davis and A. E. Souch</i>	81
24. Practical design of internal shields for AGRs and the demonstration of their effectiveness. <i>S. J. Cripps and J. M. Tayler</i>	91
25. Access provision for the AGR pressure vessel. <i>J. B. Taylor</i>	101
26. Design measures to provide radiation protection during operation and maintenance of the irradiated fuel route of the Hartlepool/Heysham advanced gas cooled reactors. <i>L. M. C. Dutton</i>	113
32. Radiological protection problems in the processing of PFR fuel. <i>J. A. B. Gibson</i>	125
34. Radiation protection features of the new waste calcining facility. <i>G. E. Bingham and B. R. Wheeler</i>	135
35. Radiological aspects of the design of a facility to solidify radioactive sludge. <i>C. Smitton and W. M. Williams</i>	143

Dose assessments, measurements and operating experience

37. Time integrated spent fuel storage biological doses. <i>J. F. Strahl</i>	151
40. Analysis of occupational radiation exposure in BWRs built by Kraftwerk Union and its implications for the design of present and future power plants. <i>K. Pfeiffer, H. Bindewald, N. Eickelpasch and H. Wachter</i>	159
41. Occupational exposure to the personnel in nuclear power plants with pressurized water reactors built by Kraftwerk Union. <i>H. Untervossbeck and H. Weber</i>	167
42. Radiation level trends in Westinghouse pressurized water reactors. <i>F. J. Frank and J. Sejvar</i>	177
43. Measurement of gamma ray dose rate distribution internal to a PWR steam generator using LiF thermoluminescent dosimeters. <i>S. L. Anderson, L. Clemons, A. H. Fero, S. Kang and J. Sejvar</i>	181
44. Occupational exposure at Millstone 2. <i>R. C. Rodgers, G. F. Caruthers, J. P. Donohue and H. M. Swartz</i>	185
45. Control of iron feed rate into reactor to reduce shutdown radiation level. <i>Y. Sugimitsu, M. Izumiya, S. Uchida, K. Ohsumi, M. Miki and K. Tanno</i>	193
47. Influence of design and operation of Magnox reactors on personnel doses. <i>P. F. Heaton and H. C. Orchard</i>	199
48. Experience of radiation and contamination control at Dungeness A Power Station. <i>F. G. King and P. F. Heaton</i>	205
49. Health physics contribution on a nuclear power station. <i>B. W. Skelcher</i>	213
51. Measurements to aid design of corrosion product contamination control techniques in AGR fuel plug maintenance facilities. <i>P. B. Woollam and D. M. Johnson</i>	221
54. Radiological protection when handling plutonium in a laboratory for experimental fuels. <i>D. C. Fraser</i>	227
59. Radiation shield integrity testing at the new waste calcining facility. <i>R. N. Henry and N. C. Olson</i>	235
61. On-line computer application to radiological protection programme of Tokai-II nuclear power station. <i>A. Higashi</i>	243

