

# CONTENTS

|  |    |
|--|----|
| Introduction. . . . .  | 5  |
| Definitions. . . . .   | 6  |
| Table 1. Nuclear power reactors in operation and under construction, 31 Dec. 2004              | 8  |
| Table 2. Reactor types and net electricity power, reactors connected to the grid, 31 Dec. 2004 | 10 |
| Table 3. Reactor types and net electrical power, reactors under construction, 31 Dec. 2004     | 12 |
| Table 4. Construction starts during 2004   | 13 |
| Table 5. Connections to the grid during 2004   | 14 |
| Table 6. Scheduled connections to the grid during 2005   | 15 |
| Table 7. Reactor years experience, up to 31 Dec. 2004  | 16 |
| Table 8. Reactor units and net electrical power, 1970 to 2005                                  | 18 |
| Table 9. Scheduled construction starts during 2005   | 20 |
| Table 10. Reactors connected to the grid, 31 Dec. 2004   | 21 |
| Table 11. Reactors under construction, 31 Dec. 2004  | 42 |
| Table 12. Reactors shut down, 31 Dec. 2004 . . . . .   | 44 |
| Table 13. Annual construction starts and connections to the grid, 1955 to 2004 . . . . .       | 49 |
| Table 14. Average construction time span. . . . .  | 50 |
| Table 15. Cumulative performance factors for non-prototype reactors up to 2003 . . . . .       | 52 |
| Table 16. Average full outage statistics for non-prototype reactors during 2003 . . . . .      | 53 |
| Table 17. Causes of outages during 2003 for non-prototype reactors. . . . .                    | 54 |
| Table 18. Causes of outages, 1971 to 2003, for non-prototype reactors. . . . .                 | 56 |
| Table 19. Countries - abbreviations and summary. . . . .                                       | 58 |
| Table 20. Reactor types - abbreviations and summary. . . . .                                   | 60 |

|   |    |
|---|----|
| Table 21. Operators - abbreviations<br>and summary. . . . .                                     | 61 |
| Table 22. NSSS suppliers - abbreviations<br>and summary. . . . .                                | 68 |
| Figure 1. Reactors in operation and net electrical<br>power (as of 31 Dec. 2004) . . . . .      | 72 |
| Figure 2. Reactors under construction and net<br>electrical power (as of 31 Dec. 2004). . . . . | 73 |
| Figure 3. Nuclear share of electricity generation<br>(as of 31 Dec. 2004). . . . .              | 74 |
| Figure 4. Average construction time span<br>(as of 31 Dec. 2004) . . . . .                      | 75 |
| Figure 5. Number of reactors in operation by age<br>(as of 31 Dec. 2004) . . . . .              | 76 |
| Figure 6. Annual construction starts and<br>connections to the grid (1955-2004) . . . . .       | 77 |