Nuclear power plants

feature numerous major systems and subsystems in which flows of liquids and gases must be cooled, heated, cleaned and separated – efficiently and reliably.

A comprehensive range of Alfa Laval systems makes this possible, with exceptional performance and a minimum of energy. One of the world’s very first commercial nuclear plants, Wylfa in the UK, selected Alfa Laval plate heat exchangers for its central cooling system in 1964. This was a breakthrough for plate heat exchanger technology in an industry that is exceptionally demanding and safety-focused.

Since then, Alfa Laval has supplied in excess of 3,000 heat exchangers to the nuclear power industry. More than 150 nuclear reactors in over 20 countries currently use Alfa Laval equipment in processes critical to safety and efficiency – inside the nuclear island, in the turbine island and in the auxiliary systems.

Our extensive end-to-end technical know-how, combined with solid long-term experience in the power business, ensures you maximum benefits from new systems as well as from updating and retrofit projects.
Key products for nuclear positions

Nuclear island
1. Coolers and filters for closed-loop cooling for reactor
2. Residual heat removal, emergency sprinkler water cooling and condensation pool cooling
3. Spent fuel pond cooling
4. Steam generator blow-down system
5. Hydrogen incineration and gas cooling system
6. Feed pump oil cooling and cleaning
7. Lube oil cooling for main pump
8. Make-up water system for reactor
9. Air or water coolers for closed-loop cooling in emergency diesel generator
10. Lube oil cooling and cleaning in emergency diesel generator
11. Fuel oil treatment in emergency diesel generator
12. District heaters
13. Closed-loop coolers and filters for turbine island
14. Make-up water system
15. Dry coolers

Turbine island and auxiliary systems
16. Cooling and cleaning turbine lube oil
17. Generator cooling
18. Cooling and cleaning insulating oil
19. Waste water treatment

Alfa Laval complies with international and national nuclear codes that include:
• ISO 9001 and ISO 14001
• ASME Section III, N Stamp
• ASME Section III, NPT Stamp
• RCC-M
• KTA 1401
• ASME Section VIII U Stamp
• PED
• HAF
• PNAE-G