|  |  |
| --- | --- |
|  | 确认标志-jpg-03.jpg |
| China |
| Chapter president | Ma Lu |
| Chapter board members | 28 board members, from NPPs, university, research institutes, etc. |
| Number of members | About 10,000 |
| Chapter accepted by WiN Global | 2006 |
| Nuclear power infrastructure | At present, there are 26 nuclear power units in operation and 24 units under construction in China’s mainland. Having the largest number of units under construction, China has the most robust nuclear power market in the world. In addition, According to the Medium and Long Term Nuclear Power Development Plan, China’s total installed capacity of nuclear power in operation will reach 58GWe by 2020, and with 30GWe under construction. While developing the mainstream PWR, China is also looking into the future and conducting a lot of scientific studies and project practices, including fast reactor, high temperature gas-cooled experimental reactor and nuclear fusion, etc.China adopts a closed fuel cycle strategy and has built a complete nuclear fuel cycle industry, including uranium mining, conversion, fuel fabrication and reprocessing. |
| Nuclear medical applications | China has around 30 nuclear medical labs, focusing on molecular nuclear medicine, molecular imaging probes, molecular probes etc. |
| Waste management philosophy | It should be stated in the first place that China doesn’t regard spent fuel as radioactive waste. China deals with and disposes of radioactive waste in a strict manner in compliance with the principle of “radioactive waste minimization” and according to the requirements of nuclear safety laws and regulations. Low and medium level liquid waste is treated with cement solidification and bitumen solidification while high level liquid waste is treated with glass solidification. Low and medium level waste is disposed of in near-surface area while the high level waste is disposed of in centralized deep geological facility. |
| Research | China’s nuclear research covers various aspects, including reactor, nuclear fuel cycle, nuclear technology application etc. China has a series of nuclear R&D facilities, including advanced research reactor, experiment fast reactor, HL-2A TOKAMAK etc. China’s nuclear research activities include basic nuclear research, large advanced PWR, HTGR, super-critical water cooled reactor, fast reactor, molten salt and fusion devices. In addition, research activities such as uranium exploration and mining, uranium enrichment, high performance fuel assemblies, spent fuel processing and radioactive waste treatment and disposal etc., are also being carried out.  |
| Post-Fukushima | Since Fukushima accident, China has adopted the world’s highest safety standards for the construction of new nuclear power projects. The new units must meet GEN III safety standards. Chinese Regulator has issued a lot of new or revised regulations to enhance the safety standard. |