

Questions and Answers

| | |
|----|---|
| 1 | Less than 1% of the radiation we receive in the UK comes from nuclear power. Medical procedures give about 150 times more radiation than the nuclear industry. |
| 2 | An advanced industrial economy employs dangerous chemicals, acids, chlorine, insecticides, arsenic, mercury, lead etc. If the precautions match the hazard, no-one comes to any harm. People think that water is safe yet over 100 people drown in accidents in the UK every year. |
| 3 | For 60 years we have handled nuclear waste in power stations, universities, hospitals and research centres without causing any harm to the public. Any risk from the waste will be thousands of times lower when it is stored in concrete and stainless steel containers half a mile underground. |
| 4 | If a radio-isotope has a long half life – eg 50,000 years, it will give out little radiation as it decays. Uranium 235 that occurs naturally has a half life of 700 million years and is in the ground in many parts of the UK. Poisonous metals like lead never decay. They have an infinite half life. |
| 5 | The death toll from Chernobyl is about 50. The Aberfan death toll was 144. 167 died on the Piper Alpha Platform. Since nuclear power started in the UK over 50 years ago, there have been no injuries to the public. Over the same period, there have been about 5000 deaths on the railways. |
| 6 | When Calder Hall started in the UK, there was about one death per working day in the coal industry – 300 per year. The nuclear industry set standards that have still not been matched by some industries. |
| 7 | A large power station burns about 2 million tons of coal a year. Until 20 years ago there were half a million miners in the UK and we burned about 80 million tons of coal a year to generate electricity. Is it really credible that such a quantity can all be replaced by a few thousand wind machines and turning our roofs to the sun? |
| 8 | With the issue of nuclear waste, nano technology, GM foods or waste incinerators, opponents prey upon the public's natural mistrust of novel technologies. One hundred and fifty years ago some people predicted that passengers would die travelling through railway tunnels. |
| 9 | EON have developed a gas turbine power plant that will fit on the back of a couple of lorries and produce 370 MW – enough to power a small city. That would require the output of 250 wind turbines covering 20 sq miles and they would provide full power only 20 - 25 % of the time. |
| 10 | No-one should delude themselves that obtaining power from the sea is a free lunch. The OSPREY wave generator that was positioned offshore near Dounreay, Caithness was wrecked in 48 hrs. |

| | |
|----|--|
| 11 | The Manchester university bobbing duck is about 2m dia and 3m high and that is only a one hundredths scale model. These devices will be the size of oil rigs or blocks of flats bobbing about off the coast. |
| 12 | Renewable plants will always spoil the landscape because their low energy density means that the only way to obtain useful power is to have enormous numbers of them. |
| 13 | Even the heat from the sun is not guaranteed. If we have a massive volcanic event like Mt St Helens or Krakatoa that blasts millions of tonnes of debris into the atmosphere, the output of solar panels will be reduced for years. |
| 14 | The UK is an industrial society of 60 million people with ten million pensioners and households increasing about a percent each year. We need electricity almost 100% of the time. Each population increase of 500,000 needs a new power station to meet the increased electricity demand. |
| 15 | Renewable proponents consider only the favourable conditions for their technologies. Renewables can all fail together under certain weather conditions. Coal, gas and nuclear plants can provide power on the bad days when it is freezing, foggy or when there is a blizzard or no wind for a week. |
| 16 | Denmark claims that wind turbines provide 10% of its electricity. Since it has to use coal to provide power on windless days, its CO ₂ emissions are twice those of Sweden that uses hydro and nuclear. |

Paul Spare

SONE

14 November 2009