- ☢ Every week, trains carrying highly toxic waste from UK nuclear power stations travel through populated areas, during busy daylight hours, on their way to Sellafield in Cumbria.
- ☢ Radiation is harmful to health and, in the wrong hands, is a threat to the safety of mankind and our planet.
- ☢ Radioactive waste is a by-product of the nuclear power industry.
- ☢ Radwaste has to be stored, monitored and guarded for as long as it is radioactive, which can be millions of years. If the Romans had nuclear power, we would still be taking care of their waste now. We would not be thanking them for what they have done for us.

What is the solution to this problem?
There isn't one!

Join Stop Hinkley today at
www.stophinkley.org

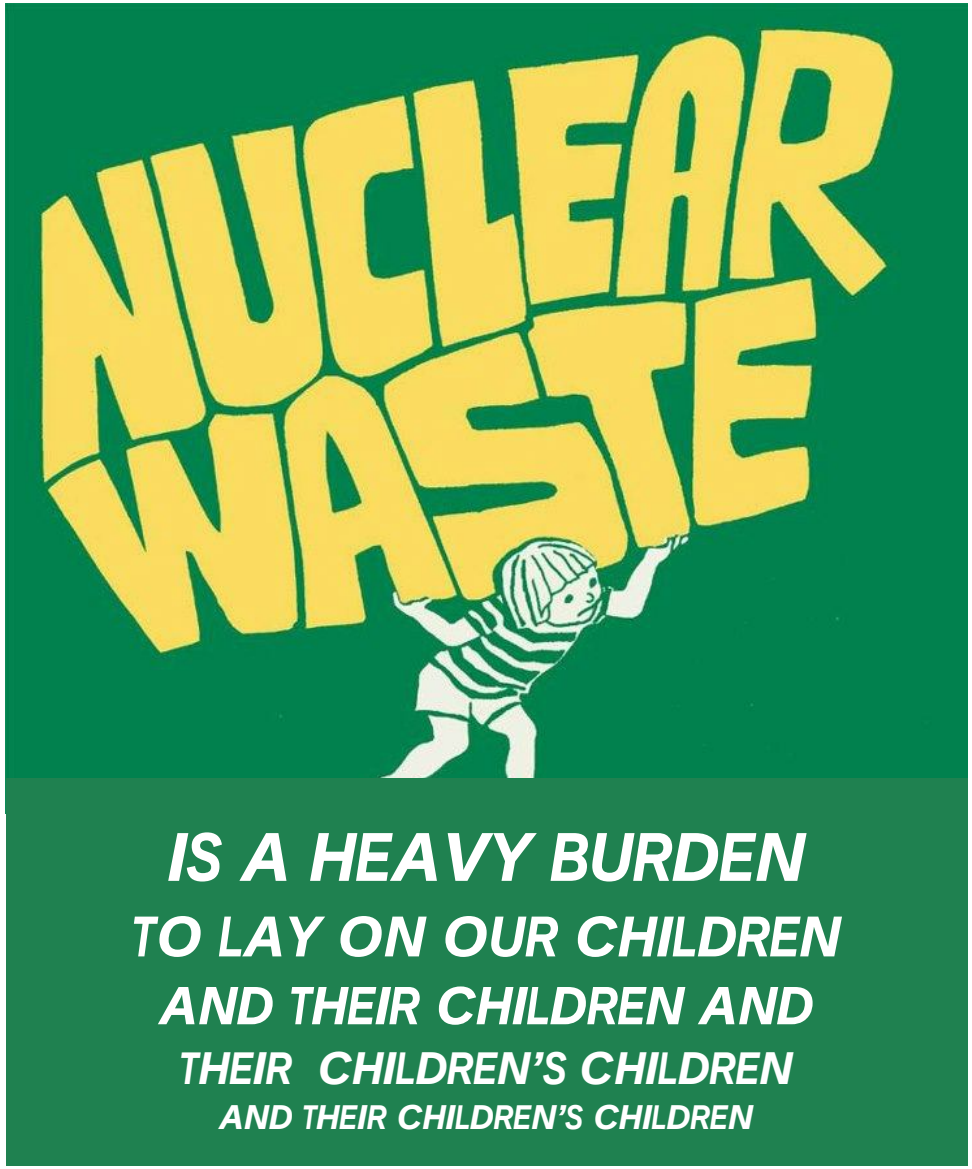
We have fought off Hinkley C before.
Now we need your support to do it again.

For further details of the campaign contact:
Stop Hinkley,
8 The Bartons, Yeabridge, South Petherton TA13 5LW

Email: admin@stophinkley.org

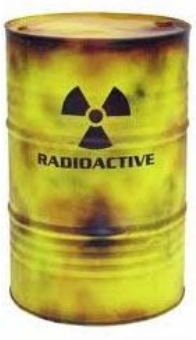
Join or make a donation via PayPal to:- donation@stophinkley.org
or send a cheque with your name and address
Whatever you give, however small, is gratefully received.

STOP HINKLEY PATRONS
Raymond Briggs, Julie Christie, Terry Jones,
Caroline Lucas MP, Michael Meacher MP, John Williams



www.stophinkley.org

Radioactive Waste:
The Big, Unresolved Problem of Nuclear Power



Nuclear waste is a world wide problem. There is no disposal site to securely contain radioactive waste.

The nuclear industry in Britain has already produced a pile of hazardous material to be guarded well beyond our lifetimes. Now it wants to make even more, yet no scientific solution to nuclear waste storage is in sight.

What is Radioactive waste?

When spent uranium fuel comes out of a nuclear reactor, it is highly radioactive. On top of this, nearly all aspects of nuclear power are contaminated with radioactivity. If Hinkley C were built, there would be a huge increase in radioactive waste production.

Radioactivity naturally decays over time, so radioactive waste has to be stored in appropriate facilities until it no longer poses a risk to human health. This period depends on the type of waste and the radioactive isotopes present. It can range from a few days for very short-lived isotopes to millions of years for spent nuclear fuel.

What is currently done with radioactive waste?

Each power station has its own nuclear waste dump as there is nowhere safe for the waste to be stored long term, i.e. millions of years. Old reactors send their most radioactive waste to Sellafield, which is running out of space. There it is treated, in a very dangerous process, to extract the weapons material plutonium.

Low level waste goes to Drigg near Sellafield, which is at risk from rising sea-level as it is near the coast. At Sizewell, the most radioactive waste is stored on site, but a new storage facility will have to be built as they are running out of space. At the planned Hinkley C nuclear power station, the waste fuel would also be stored on site. It will have to be kept safe for millions of years and no-one knows how.

Financial Problems

The continually increasing cost of trying to keep the waste safe will be a financial burden on tax payers and consumers forever. No one can predict the final cost. At present, the Nuclear Decommissioning Agency spends £3billion per annum.

The Sellafield site needs to be made safe and this requires huge annual financial investments. Two thirds of the Government's DECC budget is used on the clean-up of nuclear facilities.

Radioactivity and Health Problems

Radioactivity can cause damage to the DNA structures and enzymes in living cells and can lead to cancers and many other ill-health effects. Just standing next to the waste fuel taken out of a reactor would be enough to kill you.

Radioactive releases into the local air and sea from every nuclear power station are routine. Due to licensed emissions from reactors, health issues have developed in the locality of nuclear power stations. In 2008, a German government study reported an increased level of leukaemia and other cancers among children living within 5km of all 16 German reactors.

Since the 1986 accident at Chernobyl in Belarus, life expectancy there has gone down by 20 years. This is due to the multitude of health problems from the nuclear disaster where radioactive releases spread into the environment. .

Following the 2011 Fukushima disaster in Japan, radioactive waste water is contaminating the Pacific. We have yet to see the full detrimental health effects from the radiation emissions. Children are already showing changes in their thyroid glands.

Security

Nuclear power stations have to be kept safe from terrorists. The site also has to be secure from earthquakes, tsunamis and flooding as well as aircraft or missile strike. Computer control is vulnerable to cyberterrorism.

Transporting waste around the country from nuclear reactor sites to Sellafield on rail or road poses a serious security issue. The waste passes through densely populated urban areas. It is vulnerable to accidents and is potentially a terrorist target.

The Unsolved Problem

There is no scientific solution to nuclear waste in sight. Not for the legacy waste from the last 60 years of production, nor future waste. The planned reactors would be run at a higher intensity and so the waste problems would be worse. Nobody wants nuclear waste stored in their back yard - and who can blame them! Hinkley C would turn Somerset into a high-level radioactive waste dump.