Re: The lie of Nuclear Power

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<david@xxxxxxxxxxxxxxxxxxxxxxxx> wrote i

> Nuclear power is not green.

All energy sources have human and environmental consequences.

> It will not solve our environmental
> problems. To begin with there still is no place to store the waste.

There are lots of suitable locations.

> If
> you store it in Yuka Mountain you will have to abandon the South West
> and northern Mexico when ground water from the site eventually carries
> radioactive waste into the Colorado River.

Spent nuclear fuel decays to where it is less radioactive than some grades of natural Uranium ore, in around 1,000 years.

We can take a lesson from the natural nuclear reactors at Oklo, which went critical around 1.8 billion years ago. Roughly 4,000 pounds of Plutonium was produced there, and it barely migrated through the rock it was formed in. This in spite of it being unclad, uncontained, unvitrified & in spite of hot water flowing over it for somewhere around half a million years. It's not that big a problem.

> But even if you had a site,
> getting the waste from the various reactors to the site posses a huge
> risk. Even if we are extremely careful the odds are there will be an
> accident that spreads radioactive waste over a wide area forcing the
> evacuation of a few thousand to a few million people.

Spent nuclear fuel declines in it's level of radioactivity by around 10,000 times, in around 10 years. So you're dealing with material thousands of times less radioactive than what was released at Chernobyl, and you have considerably less material in a transport container, than was contained in the Chernobyl reactor. So even if you buy into reports that Chernobyl may have killed a few thousand people, you're dealing with thousands of times lower levels of radiation & about 1% as much fuel. As well, many of the easy to disperse materials will have decayed. The biologically significant isotopes of Iodine would have long decayed. On top of that, there would be considerably less energy to disperse the spent fuel, compared to the Chernobyl accident. Regardless, the transport containers are very robust.

I'm more worried about fossil fuel transport trucks. One exploded in the Salang tunnel in Afghanistan on Nov 3, 1982. An exact body count wasn't possible, as many of the bodies were completely incinerated. World Almanac 1995 lists the death toll estimates as between 1,000 & 3,000.

> Add to this the
> fact that all reactors eventually become so radioactive that they are no longer operable and the only solution so far to decommissioning is to shut them down lock the gate and walk away. But since radioactivity destroys everything it touches

Some advice from the heart. Try to put at least minimal effort into understanding a topic before you discuss it.

> So what are the solution, if not Nuclear, why the one thing that all the advocates of the nuclear power menace fail to even mention Hydrogen?

Hydrogen is a method of storing power, not a base source. You might as well suggest we use lead acid batteries for our power. The most common methods are to separate Hydrogen from natural gas, or to crack water into Hydrogen & Oxygen.

(There is some indications that there may be deposits of free hydrogen very deep in the Earth's crust. There is of course the problem that we haven't drilled anywhere near as deep as the conjectured Hydrogen deposits, and the problem that we don't know where to drill, even if there are any such deposits. As well, there's the energy cost to drill that deep.)

> Hydrogen is cheap,

It's more expensive than the power used to produce the Hydrogen, as the production processes aren't 100% efficient.

> plentiful, clean and can be used in all
> current vehicles with only slight modifications.

The energy to weight ration for Hydrogen is far worse for Hydrogen than for gasoline. So if the energy to volume ratio.

> It can be burned
> instead of coal and oil in our power plants.

At a net loss of power, as you need power to produce the Hydrogen in the first place.

> Hydrogen fuel cell
> technology can remove millions of houses from the grid giving energy independence to individual home owners, which is exactly why big oil which is behind the push for Nuclear power are opposed to it and will tell any lie buy any talking head to push their bankrupt agenda.

Nuclear's a fine enough power source to make Hydrogen, if that's how things go.

Karl Johanson

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