

Design flaws in nuclear transport ships increase the risk of accidents, claims report

Consultant says claims of safety 'lack scientific and technical credibility'
By Rob Edwards, Environment Editor, Sunday Herald, 12th April 2009

THE GROWING number of nuclear waste shipments being made through the Irish Sea risk accidents that could cause widespread radioactive contamination, according to an expert report out this week.

The transport ships have "design flaws" that could make them unsafe while the emergency plans in place for coping with an accident are non-existent or inadequate, the report says.

At least 45 movements of nuclear materials have been made north and south through the Irish Sea since 2004. Cargoes of radioactive waste and fuel are transported from the Sellafield nuclear complex in Cumbria to nuclear plants in Japan, the US and Europe.

The report was commissioned by a coalition of more than 70 local authorities in the UK and Ireland worried about nuclear power. It was written by the independent marine pollution consultant, Tim Deere-Jones, and is due to be published in a few days.

The three main ships used for nuclear transports - the Pacific Pintail, the Pacific Sandpiper and the Pacific Heron - are vulnerable to the build-up of gas or moisture in their doubled-skinned hulls and "runaway corrosion", the report says. It points out that 40% of the ships only have single-skinned hulls, and that claims they are unsinkable "lack scientific and technical credibility". A 90% double-skinned Italian chemical tanker, *levoli Sun*, sank in the English Channel in October 2000.

There have also been accidents involving nuclear shipments in the Irish Sea in the past. Radioactive californium was lost overboard from the *SS Ardlough* during a storm south of the Isle of Man in 1986, and, in 1999, an engine-room fire disabled the *City of Manchester* when it was carrying 10 tonnes of uranium dioxide through St George's Channel. Industry claims that the ships could resist collisions are also "not credible", the report says. The boats have been designed to survive an impact from a 24,000-tonne vessel travelling at 15 knots, but today's supertankers can be 350,000 tonnes.

The report reveals that the emergency plans for coping with accidents are not drawn up by the government's Maritime and Coastguard Agency but by the companies that operate the nuclear ships. For the agency to relinquish control in this way is "unprecedented", the report says.

"There is no doubt that the risks of sea transport of nuclear cargo have been seriously underestimated," Deere-Jones told the Sunday Herald. "In the event of a breach of containment or loss of radioactive cargo at sea, pollution response planning is non-existent."

His report points out that such an accident could generate "enormous amounts of shoreline radioactive waste" including contaminated seaweed, flotsam and jetsam. It recommends that coastal local authorities should develop emergency clean-up plans.

The report was written for the 70-strong group of Nuclear Free Local Authorities, and has prompted "deep concern" from the chairman of its Irish forum, councillor Mark Dearey.

"It is imperative that nuclear emergency planning in Ireland addresses the possibility of a nuclear accident at sea and gets a plan in place," he said.

Nuclear carrier ships are operated by Pacific Nuclear Transport Limited (PNTL), whose major shareholder is International Nuclear Services (INS), a subsidiary of the government's Nuclear Decommissioning Authority. "All PNTL/INS vessels comply with domestic and international regulations for safety and security," said an INS spokesman.

INS had sent nuclear shipments five million miles over 40 years "without any incident involving the release of radioactivity", he claimed. "The meticulous transport plans for each voyage, have to be agreed by the appropriate authorities before transports can take place."

When it comes to the future of power sources Scotland cannot be considered in isolation

Letters page, 14th April 2009, The Daily Herald

According to J L Gray, nuclear electricity will cost around 3.5-4p per kW hour, as if there is some kind of certainty (Letters, April 11). In fact, there are some very large uncertainties. Neither of the two competing reactor designs, for instance, has yet been built anywhere in the world. The French type, under construction in Finland, is already three years late and 50% over budget.

It was recently reported that the capital costs of new reactors in the United States are "out of control" and expected to reach 10-14p per kWh.

Others are predicting costs closer to 17p per kWh. Achieving low costs will depend on achieving short construction times with construction costs at the very bottom end of the range; on achieving very high operating reliability; and on building a series of identical reactors.

But the UK's past record does not give cause for confidence. Nuclear power is a 50-year-old mature technology with limited scope for cost reduction. On the other hand, renewable technologies are new, with a very large scope for cost reductions. The UK Government's 2002/3 Energy Review predicted that wind was likely to become one of the cheapest generating technologies within 20 years. In the US, solar electricity is expected to be competitive with

conventional forms of generation by 2015 or earlier; before any new reactors have come on line. New reactors could well be economically obsolete before they are even built.

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