

NUCLEAR TITANICS



October 2000, the chemical tanker, *levoli Sun* (left), is swamped in rough seas and sinks in the English Channel, near Cherbourg, France. The 11-year-old tanker was fully double hulled and according to its owner met the highest International Maritime Organisation (IMO) standards.



April 2002, the nuclear freighters *Pacific Pintail* (pictured above) and sister ship *Pacific Teal* left Barrow, UK, bound for Japan to pick up a dangerous cargo of rejected plutonium MOX material. Dangerous because it contains 255 kilograms (kg) of weapons-usable plutonium – enough plutonium to build 50 nuclear bombs. Each ship is armed with three cannons and 7 tons of explosive ammunition. The 13 and 20 year-old ships are claimed by their owners to be the safest in the world, but they are not fully double hulled. The two ships plan to sail 30,000km through the world's most treacherous seas.



A deadly worldwide trade

Each year, ships full of dangerous nuclear materials pass the coastline homes of millions of people around the world. The number of these shipments is escalating through the Pacific and around Australia and New Zealand, posing significant risks to the environment and people's health along the transport route:

- The ships involved in these dangerous transports are old and have inadequate safety designs compared to other hazardous cargo ships.
- Lethal radioactive plutonium, highly radioactive wastes and waste nuclear fuel are being transported in increasing amounts – over the next decade up to 80 plutonium shipments alone are being planned by the nuclear industry through the Tasman Sea and Pacific.
- Fire on board is one of the greatest risks, yet the casks used for shipping spent nuclear fuel, plutonium MOX fuel and high-level waste are only tested for a fire of 800 degrees centigrade for **half an hour**. Shipboard fires usually last many hours, even days and burn at even higher temperatures.
- In the worst case scenario, US tests have shown that a fire could breach these casks within two hours. This could release a plutonium smoke cloud into the atmosphere. Breathing in even a particle of plutonium can cause fatal cancer, genetic defects and immune diseases. Plutonium remains radioactive for over a quarter of a million years.
- The economic impact of a nuclear ship accident is immeasurable. Even if a nuclear container is not breached or radioactive material released, the damage to the reputation of fisheries, coastal recreation and tourism is likely to be enormous.
- The nuclear shipping companies fail to meet basic international standards by refusing to conduct an international environmental impact assessment on the risks.
- While dozens of coastal nations en route are endangered by the shipments, their governments have not been consulted by the nuclear industry about the route, timing, security arrangements or emergency planning details.

Outspoken governments protect their coastlines



On its way through the Pacific and Tasman Seas, the plutonium shipment will come close to, and probably breach, the Exclusive Economic Zones of several countries.

The New Zealand and Caribbean governments strongly oppose plutonium shipments through their region. As a result, no loaded MOX ships have travelled past Caribbean countries, and MOX shipments through the Tasman Sea have so far not breached New Zealand's 200 mile Exclusive Economic Zone (EEZ).

In May this year, New Zealand Prime Minister, Helen Clark, told Japanese Prime Minister Junichiro Koizumi that the plutonium ships were not welcome.

The Caribbean Council for Foreign and Community Relations (COFCOR) issued this strong statement:

CARIBBEAN COFCOR STATEMENT, May 6, 2002:

The Council for Foreign and Community Relations (COFCOR), registers its deep concern and consternation at reports that two nuclear transport vessels are currently en route to Japan through the Caribbean Sea to undertake the most controversial nuclear shipment in history, that of returning to Sellafield, in defiance of international law, a rejected cargo of deadly plutonium MOX fuel. ...

The COFCOR stresses that the events of September 11th, 2001, and the subsequent public revelations that terrorist groups have indeed explored nuclear options, clearly demonstrate that the

threat of nuclear accident or nuclear terrorism is very real. In these circumstances, and at a time when the international community is so heavily focused on security issues, it is inconceivable that these dangerous shipments should be allowed to continue on a routine basis, without regard to the obvious and escalating risks to which they expose all societies in their transit path.

The COFCOR expresses its deep disappointment at the lack of adequate prior notification of these shipments and at the absence of any comprehensive environmental impact assessment on this matter undertaken by the shipping or receiving states.

“...MOX fuel remains a material in the most sensitive category because plutonium suitable for use in weapons could be separated from it relatively easily.”

— The US Department Of Energy Office of Arms Control, January 1997

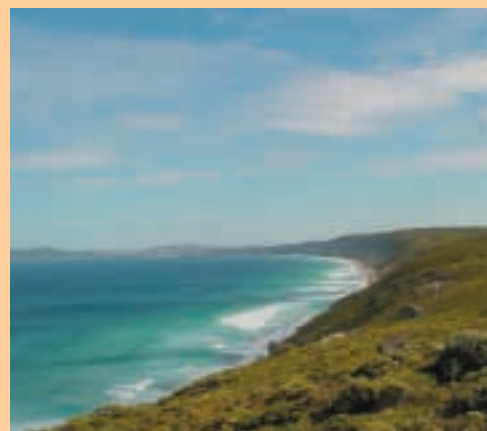
The COFCOR reiterates, in the strongest possible terms, its implacable and steadfast opposition to the continued use of the Caribbean Sea for the trans-shipment of nuclear waste. It urges those responsible to respect the clearly expressed wishes of the Governments and peoples of Caribbean Basin states to desist from this practice which represents the most devastating threat to the safety and security of the region. For their part the Caribbean Governments vow to examine every possible legal and other recourse to halt this dangerous practice which the current international security environment has rendered even more unacceptable.

In 2001 the Acting President of the Pacific nation of Nauru, Derog Gioura said his Government would protest against a MOX shipment in the strongest possible terms.

“We do not accept the responsibility for any possible and irreversible harm that may be effected upon for instance our fishing grounds in the event of an accident.

“We, the Government and People of Nauru, call upon those nations responsible for gain from the processes and products that involve plutonium to accept fully their responsibility in the safe disposal of toxic and hazardous wastes. They can start by returning to their own shores the Pacific Pintail and its deadly cargo.”

— Nauru, February 2001



Countdown to a ‘marine Chernobyl’

2002 MARCH: British Nuclear Fuels (BNFL) nuclear transport ship, *Atlantic Osprey* caught fire in its engine room during its voyage from dry dock in Manchester in UK to the Irish Sea. In late 2001, this ship transported hundreds of kilograms of plutonium within European waters.

2001: BNFL's *Pacific Teal*, which will be involved in the planned 2002 falsified plutonium MOX transport, failed a maritime inspection when **6 safety deficiencies** were found.

1999: a serious injury to a crew member during severe weather conditions in the Southern Ocean forced the *Pacific Pintail* and *Pacific Teal*, carrying 450 kg of plutonium in the form of plutonium MOX fuel, to divert to Western Australia. **The breach of Australia's 200-mile Exclusive Economic Zone (EEZ) by the two plutonium cargo ships occurred without the prior knowledge of local maritime emergency services.**

1991 to 2000: 19 incidents and accidents have occurred on nuclear cargo ships, including on BNFL's Pacific nuclear ships. Of the 19 incidents reported, over 25 per cent were given the most serious status of “accident”. There were at least five actual fires and three incidents with fire potential and two actual collisions and one near miss.

1990: an accident in BNFL's Pacific Swan's engine room required the ship to be redirected to off-load an injured crew member.

1990: BNFL's Pacific Teal was found to have suffered major engine damage after sailing via the Cape of Good Hope with spent nuclear fuel from Japan.

MID 1980S: the *MV Mont Louis* ran aground and sank in shallow water in the North Sea. Its cargo included **60 nuclear casks of uranium hexafluoride which spilled from the vessel and spread over the adjacent seabed.** Eventually, all casks were recovered but some were reported damaged and had released radioactivity.

If an accident occurs, the nuclear casks used for transporting spent nuclear fuel, plutonium MOX and high-level waste are supposed to protect any radioactive material. The containers are only tested for a fire of 800 degrees centigrade burning for 30 minutes yet the average ship fire burns for 23 hours at higher temperatures. According to international maritime statistics, realistic tests on the nuclear casks have shown that they start to lose their containment within two hours of a normal type ship fire.

A radioactive release into the environment from a shipment of spent nuclear fuel, high level waste or plutonium (MOX) fuel could be catastrophic. Following an accident, radioactive elements could contaminate nearby coastal areas and fisheries. This radioactive contamination could cause lethal cancer and genetic defects in the people and animals exposed. Unlike oil spills, radioactive contamination is invisible and virtually impossible to clean up. Some of the substances released can remain radioactive for a quarter of a million years.

THE PEOPLE AND GOVERNMENTS OF THE AUSTRALIA, NEW ZEALAND AND PACIFIC REGION MUST BE VOCAL IN THEIR OPPOSITION TO THE SHIPMENTS OF DANGEROUS NUCLEAR MATERIALS THROUGH THEIR WATERS. IF THEY ARE NOT, THE PATH THROUGH THE TASMAN SEA AND PACIFIC ISLAND EXCLUSIVE ECONOMIC ZONES WILL CONTINUE TO BE CONSIDERED THE ROUTE OF LEAST RESISTANCE, AND WILL FACE UP TO 80 MORE SHIPMENTS IN THE COMING YEARS.

“At a time when the international community is so heavily focused on security issues, it is inconceivable that these dangerous shipments should be allowed to continue on a routine basis... For their part the Caribbean Governments vow to examine every possible legal and other recourse to halt this dangerous practice which the current international security environment has rendered even more unacceptable.”

— Caribbean governments Foreign Affairs Council, May 2002

Risking your life for nuclear malpractice

The plutonium industry is playing ‘Russian Roulette’ with the lives of everybody along the transport routes.

There is no justification for the planned plutonium MOX shipment from Japan to UK. It is only occurring because British government owned nuclear company British Nuclear Fuels (BNFL), which originally shipped the plutonium MOX to Japan in 1999, deliberately falsified vital quality control data during its manufacture. If loaded into a reactor, this blatant nuclear malpractice and deception could have led to a nuclear disaster. The 1999 shipment from the UK to Japan passed Australia and New Zealand and sailed through the Pacific.

The Japanese government and politicians strongly condemned the dishonesty and unreliability of BNFL. The Japanese Minister for Trade and Industry told a British national newspaper “...Confidence in BNFL has been destroyed”.

The Japanese and British governments have agreed to try and ‘fix’ relations by paying compensation and planning to send the falsified plutonium MOX from Japan 30,000 km back to the UK again. Japan has demanded its return as a condition of signing further plutonium MOX contracts with BNFL — which could result in shipping more than 25,000 kilograms of plutonium in MOX fuel over the next ten years – up to 80 shipments between Europe and Japan.

The route of the return plutonium MOX shipment

from Japan to the UK remains secret but there are indications that BNFL will again go through the Pacific and past Australia and New Zealand. All previous plutonium shipments have used this route.

Even emergency services worldwide have been left in the dark by BNFL about what actions will be needed if a nuclear disaster occurs on board a BNFL plutonium MOX shipment. BNFL has written a set of “Special Arrangements” for responding to ‘at sea emergencies’ involving the nuclear materials they transport. The “Special Arrangements”, which are “commercial in confidence”, are the sole property of BNFL. These secret emergency plans are not available to the public or governments along the transport routes.

BNFL has an appalling safety record at its nuclear facilities and there is evidence of radiation caused illnesses, such as cancer, being linked to their operations. BNFL even has a criminal record in the UK for contaminating the environment with nuclear waste. People in the countries along the potential shipment routes should be worried that such a discredited company as BNFL is in charge of the safety of the deadly plutonium MOX shipment. Everyone is threatened by the plutonium industry.

Australia’s nuclear ambitions

The Australian Government’s expansion of its nuclear program is increasing the number of waste nuclear fuel shipments from Australia to Europe under new reprocessing contracts. The Australian Government supports Japan, France and Britain transporting plutonium MOX fuel from Europe to Japan to facilitate their plans to build a new nuclear reactor at Lucas Heights, Sydney and to ship more uranium abroad.

In January 2001, a major shipment of Australian spent nuclear fuel left Botany Bay near Sydney en route for Cherbourg, France for reprocessing. The spent nuclear fuel was transported on an ordinary cargo ship, the Bouguenais. The Bouguenais was used by the nuclear industry despite maritime inspections in Europe that had found a staggering 16 safety deficiencies just before the nuclear shipment. Problems were found with life saving appliances, fire safety measures, safety of navigation and international safety management.

It is believed that this shipment sailed via the South Pacific and Cape Horn, South America and through the Atlantic to northern France. This followed earlier shipments in 1999 and 1996.

Within the next 15 years, shipments of highly radioactive nuclear waste resulting from reprocessing, will return to Australia from the European facilities.

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If the Howard Government builds a second nuclear reactor in Sydney, the number of nuclear shipments through the region will multiply.

