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19 August 2011

cc: Minister of Health, The Hon Tony Ryall

Right Honourable Murray McCully
Minister for Foreign Affairs and Trade
Parliament Buildings
WELLINGTON

RESPONDING TO SECURITY ISSUE FOR NEW ZEALAND & SOUTHWEST PACIFIC FROM COLLAPSING MORUROA ATOLL

Dear Minister

We enclose more information for you about the Moruroa situation. Early this year, Jurien de la Gravière, French Ministry of Defence reported to the Ministry of Health of French Polynesia that the reef cliff of Moruroa is in danger of collapse, generating a wave 10 to 20 m high. This also raises concerns about the release into the South Pacific Ocean of the more than 500 kilos of very long-lived plutonium and other dangerous radionuclides buried in the bomb-fractured atoll following the French nuclear tests that ended there in 1996 (see article on ocean pollution in *Pacific Ecologist* Issue 20 enclosed). The article also reports on Australian scientists' computer modelling work on ocean currents that shows release of such material into the ocean would affect not only the marine life and people of French Polynesia, but reach across the South West Pacific with little dilution, reaching Australia and New Zealand. We also enclose a copy of this Australian scientific paper, *Prediction of the fate of radioactive material in the South Pacific using a global high-resolution ocean model*, published 2003 in the *Journal of Environmental Radioactivity*. As Drs England and Hazell report, release of this material could present widespread, long-term consequences with high levels of radioactivity reaching countries across the Pacific and even to South America.

Also enclosed is copy of a *Lancet* paper from 1988, *Nuclear Threat & Health in the Pacific Ocean* by Dr Ian Maddocks. This article points out the lack of reliable scientific information on nuclear pollution from Moruroa and also notes that New Zealand scientists had calculated there would be significant contamination of the Pacific over the next 10-100 years.

French oceanographer, Jacques Cousteau, said: "The vegetable life of the ocean provides a large part of the oxygen we breathe. If the sea is poisoned marine flora will disappear and with it will disappear a large part of the oxygen that is necessary to the survival of life on land." Today, marine biologists warn that the depths of the oceans may face dangers of long-term contamination from persistent pollutants, including radio-nuclides, as toxins accumulate at very high levels in algae and krill.

For decades France has denied the possibility for release of radioactive material from Moruroa, despite the obvious physical damage to the atoll from thirty years of nuclear weapons testing. With the reported imminent collapse of the reef cliff, the New Zealand Government should no longer accept assurances that large-scale release of radioactive material from Moruroa is not possible. At the least New Zealand should seek support from other South Pacific countries for regular (eg monthly) monitoring by independent science agencies for radioisotopes in the seas around Moruroa. This would ensure gathering of critical information for assessing future risk to the environmental health in the region in the event of reef collapse.

In the light of this information we ask that you investigate initiatives by other countries for monitoring this potential threat to our region with a view to supporting such an effort. We also ask that you raise the issue with NIWA, whose scientists have expertise and opportunity through their networks to contribute to the necessary monitoring.

Yours sincerely

Kay Weir, Editor,
Pacific Ecologist
pirmeditor@paradise.net.nz

Encls articles

Industrial & Military Activities Poisoning the Oceans, in *Pacific Ecologist* Issue 20, winter 2011
Prediction of the fate of radioactive material in the South Pacific using a global high-resolution ocean model by Dr M. England & R. Hazell in *Journal of Environmental Radioactivity*, 2003.
Nuclear Threat & Health in the Pacific Ocean by Dr Ian Maddocks. in *The Lancet*, 1988.