



Australian Government
Department of Veterans' Affairs

ACT OFFICE

Senate Foreign Affairs, Defence and Trade Committee
Inquiry into the Australian Participants in British Nuclear Tests Bills 2006

Dear Sir/Madam

I enclose a submission from the Department of Veterans' Affairs in relation to the Senate Foreign Affairs, Defence and Trade Committee inquiry into the provisions of the Australian Participants in British Nuclear Tests (Treatment) Bill 2006; and, the Australian Participants in British Nuclear Tests (Treatment) (Consequential Amendments and Transitional Provisions) Bill 2006.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Ed Killesteyn', with a long horizontal flourish extending to the right.

Ed Killesteyn

A/g Secretary
Department of Veterans' Affairs

27 October 2006

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Senate Foreign Affairs, Defence and Trade Committee

Submission for the inquiry into the provisions of the Australian Participants in British Nuclear Tests (Treatment) Bill 2006; and, the Australian Participants in British Nuclear Tests (Treatment) (Consequential Amendments and Transitional Provisions) Bill 2006.

Background

In 1950, the Australian Government agreed to a British request that nuclear weapons tests be conducted in Australia. The weapons tests took place between October 1952 and October 1957 and were undertaken at three locations: Maralinga and Emu Field in South Australia and the Monte Bello Islands in Western Australia. Additional “minor” trials were conducted until 1963.

In 1985, the Australian Government agreed to conduct a Royal Commission into the conduct of the testing programs in Australia. As an outcome from the Royal Commission, the Australian Government provides coverage under a scheme similar to the *Safety, Rehabilitation and Compensation Act 1988* (SRCA) to all non-Government employees, pastoralists and indigenous Australians who were in a test area at the relevant time. Coverage under this scheme provides entitled persons with reimbursement for medical costs, reimbursement for lost wages, access to a permanent impairment lump sum and death and funeral benefits if death is related to the tests.

A Special Administrative Scheme (administered by the Department of Education, Science and Training - DEST) also provided compensation to any participant in the tests who subsequently developed multiple myeloma or leukaemia (other than chronic lymphatic leukaemia). Since February 1995, this scheme has provided compensation where the relevant disease had developed within 25 years of participation in the tests. This Scheme is now closed.

The Review of Veterans' Entitlements conducted by the Hon John Clarke QC, 2003 (Clarke Report) considered submissions from the military group regarding their participation in the nuclear tests and recommended extending *Veterans' Entitlements Act 1986* (VEA) coverage to the group. In responding to the Clarke Report, the Government gave:

“an undertaking to respond positively to the needs of those affected by the British Test Programs and their widows when the outcomes are available of the Australian Participants in the British Nuclear Test Programme – Cancer Incidence and Mortality Study”.

Outcome of the Study

The Mortality and Cancer Incidence of Australian Nuclear Test Participants (the Study) was completed in May 2006 with the release of its second and final volume. The Study comprised a:

- Dosimetry Study – to develop estimates of radiation doses received by participants; and an
- Epidemiological Study – to investigate any relationship between levels of radiation exposure and mortality and cancer incidence.

The Study was conducted by researchers from the Adelaide University Department of Public Health. The research was overseen by a Scientific Advisory Committee made up of a number of eminent academics and practitioners specialising in disciplines such as epidemiology and radiation. A Consultative Forum also met regularly to be informed about the progress of the Study. The Consultative Forum provided a mechanism for consultation with the participant community and government departments. The Forum included representatives from Ex-Service Organisations including those representing nuclear tests participants, officers from DVA, the Department of Defence, Comcare, the Department of Industry, Science and Training and the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), as well as the chair of the Scientific Advisory Committee and the Chair of the Dosimetry subcommittee.

A panel of health physicists was convened to undertake the Dosimetry Study. The panel drew on extensive sets of historical and primary documents, kept at organisations such as ARPANSA and the National Archives of Australia.

One of the main sources of information on participants' exposure to external radiation is the record of film badges worn during the tests. The film badges, also known as Personal Monitoring Films, were photographic film used for measurement of ionising radiation. A film badge may contain two or three films of differing sensitivities, and it may contain a filter that shields part of the film from certain types of radiation.

Although the records are by no means complete, the scientific panel responsible for the Dosimetry Study considered that there were sufficient numbers to provide a basis for dose estimation. Computer calculations have also been used to estimate dose rates that would arise from ground contamination. The Dosimetry Study found that the majority of participants received total doses of radiation that equate to approximately half the annual dose received from natural background radiation. The Dosimetry Study has been internationally peer reviewed and has been accepted by the scientific community.

The Epidemiological Study is an important piece of research and has been presented at several scientific meetings and is currently going through the process of being developed for publication in relevant journals. The epidemiology study was undertaken according to world best practice for this type of study and was under the auspices of an independent Scientific Advisory Committee. This Committee contained some of Australia's most eminent medical practitioners and academics. The results have been of considerable value to the Department of Veterans' Affairs in developing improved services for and promoting health and wellbeing among the Australian participants in British nuclear tests.

The findings of the Study indicate a total cancer incidence rate in participants greater than that found in the Australian population. The Study also found a statistically significant 19% increase in radiogenic cancers. In layman's terms, this increase equates to five more cancer deaths per year among nuclear test participants, compared to the general population.

Radiogenic cancers are a group of cancers that have been shown in the Life Span Study of Japanese atomic bomb survivors to be causally associated with radiation. They are cancers of the thyroid, stomach, colon, liver, lung, breast, ovary, bladder, leukaemia (excluding chronic lymphatic leukaemia), and non-melanoma skin cancer.

The Study examined the association between radiation exposure and the elevated incidence of all cancers, particularly leukaemia. Despite the increase in cancers that may be caused by

radiation exposure, the study found that none of these cancers showed an increasing trend with higher radiation exposure from participation in the British nuclear tests. Given the estimated low radiation exposure of most cohort members, and the relatively small proportion of subjects with any significant exposure, the lack of association between cancer and radiation is not surprising. Indeed, the Study concluded that the:

“lack of association between these cancers and radiation is not unexpected, given the generally low levels of exposure”.

In respect of the levels of exposure experienced by the participants, the Study found that less than five percent of the group exceeded the annual occupational exposure limit for radiation workers of 20 milli-Sieverts (mSv) per year. The majority of participants (79 percent) were exposed to less than 1 mSv of additional radiation as a result of the tests. The mean estimated exposure from natural background radiation is approximately 2.5 mSv per year worldwide and 1.5 mSv per year in Australia. In other words, the average exposure in the test participants was only slightly above the background exposure experienced by all people in a single year, and about 100 times less than the dose received by the people who survived the Japanese atomic bombs, in whom excess cancers were found.

The Study also examined the death rate from cancers among this group. The Study found that while the overall death rate was not significantly different to that found in the Australian population, the death rate from cancer was elevated. The Study found that there was no association between radiation exposure and leukaemia, mesothelioma, lung cancer, melanoma, colo-rectal cancer or oral cancer in this cohort. While the Study could not state the exact cause of the cancers, it did suggest that the higher than expected incidence and mortality from specific cancers is more likely explained by exposures to benzene, asbestos and cigarette smoke in a range of environments.

Purpose and effect of the legislation

The two Bills implement the undertaking given by the Government in 2003 in response to the Clarke Report. The undertaking was to respond positively to the needs of the participants, at the conclusion of the Mortality and Cancer Incidence Study of the group.

Although the study did not show association between the elevated cancer rate and radiation exposure, the Government has decided to provide non-liability health care treatment for all cancers to nuclear test participants, hence the health care package being offered under this legislation.

This Bill will provide participants with non-liability treatment for all malignant cancers regardless of causation, as well as access to on-going cancer testing.

Persons who may be eligible under this Bill include those who were Australian Defence Force personnel, Australian Public Service employees and third party civilian contractors.

This initiative is expected to benefit up to 5500 Australian participants of the nuclear weapons tests.

The health care initiatives will be funded and delivered through the Department of Veterans' Affairs. Persons eligible under the Bill will have access to extensive health care services including GP services, hospital care and specific cancer treatments. The commencement date for eligibility for treatment will be three months prior to the date of lodgement of the claim or 19 June 2006, the date of the Government's decision, whichever is the later.

Participants will also have continued access to existing statutory workers' compensation schemes such as the *Safety, Rehabilitation and Compensation Act 1988(SRCA)*, and the scheme administered by the Department of Employment and Workplace Relations.

This initiative demonstrates the Government's commitment to the Australian military and civilian personnel who participated in the British nuclear tests and will assist in addressing their health needs.