

Australian Democrats Additional Comments

Inquiry into the provisions of the Australian Participants in British Nuclear Tests (Treatment) Bill 2006 and a related Bill

Introduction

This legislation will provide for the testing and treatment for cancers for Australian participants in British nuclear tests in Australia in the 1950s and 60s. The Committee's main report has outlined some of the concerns raised in the inquiry. However, it has downplayed the concern raised in relation to the legislation in its current form.

As has been pointed out in many of the submissions to the Inquiry, the Bills

- are predicated on the basis of disputed research,
- ignore the many non-cancer related health effects of exposure to radiation and the concomitant health care and treatment needs,
- fail to adequately recognise key categories of people exposed to fallout from the tests,
- neglect the intergenerational genetic and heritable consequences of participation in the tests and
- do not offer compensation for pain and suffering for surviving veterans and exposed civilians and their families and for the partners and families of those test participants who have tragically already died.

The Democrats support efforts, however overdue, to provide fair and just treatment to those Australians who were involved either as service personnel or civilians in the tests and consequently exposed to radiation. As such we welcome the measures in these Bills which essentially provide the equivalent of a White Card for cancer testing and treatment for surviving participants of the British nuclear tests, although we would argue that these measures should be significantly extended.

We are also concerned that these Bills will represent the entirety of the Government's recognition of its responsibility to the tens of thousands of veterans and civilians and their families for the diseases and deaths likely to have been caused by exposure to atmospheric nuclear weapon test explosions. The Bills explicitly dismiss the Government's liability in exposing participants to high levels of ionising radiation.

Inadequacies of Research

Many submissions to the inquiry challenged the findings of the 2006 mortality and cancer incidence study of the Australian participants of the British nuclear tests.

Submissions highlighted controversy over the studies including specific methodological concerns and broader process issues.

Inadequate dosimetry estimates

Most significantly the claim that increases in cancer were unrelated to radiation exposure were considered implausible by many witnesses and submissions, with the more likely explanation considered to be inadequate dosimetry estimates that substantially underestimated radiation exposure.

Volume 1 of the findings from the Australian Participants in British Nuclear Tests in Australia, Dosimetry 2006 indicates that for the purposes of examining the consequences of radiation exposure each participant was assigned an estimated accumulated dose for each test series. Participants were grouped into one of five exposure categories, A to E, with F applied to those individuals for which there was insufficient information on which to base an estimate of the dose.

Exposure category	Radiation exposure range (mSv)
A	<1
B	1-<5
C	5-<20
D	20-50
E	50 or more
F	Unknown

Dr Lonergan commented that "The proper conclusion emerging from the studies is that, with high probability, ionising radiation was responsible for a great many of the excess cancers and that the lack of connection between cancers and dosages was due to underestimating the dosages experienced by the participants and/or underestimating the effect of those dosages."

Major Batchelor noted that "The first and only release of the Cancer and Mortality study for comment by the Consultative Forum resulted in a conflict between adequate time for assessment of an obviously unsound document and a desire by DVA to publish as soon as possible, no matter the consequence. The current situation stems from this unseemly haste, where it still remains to be established that estimated exposures to ionising radiation do not agree with recorded measurements by extremely large factors."

Major Batchelor provides several examples of demonstrated mistakes between recorded and estimated dosage rates. In testimony to the Committee referring to tables before the Committee he notes that "an extract from AWRE report T5/54 *Fission product sampling*, co-authored by an Australian Army officer who was also the principal scientific officer at the Long Range Weapons Establishment. Highlighted is documented evidence of even higher dose rates than those stated in my original submission: a land-rover was driven toward the photographic tower 'C' at a distance of approximately one mile from ground zero (where) the activity was the order of 50

to 60 roentgens per hour (ie 500 to 600 mSv/hr). On the next page, 4B: The sample was flown immediately from Emu to Salisbury where the fused black spheres were found to be extremely active and to contain very large quantities of plutonium. It would take 60,000 hours of continuous exposure at the study's estimated dose rate of 0.01 millisieverts to achieve this dose.

Associate Professor Ruff argued that "the availability of any film badge external photon exposure for only 4% of test participants is an inadequate basis for sound dosimetry estimations." Associate Professor Ruff went on to note that "there is clear evidence that some test personnel were exposed to very much higher doses than the 100msv used in the study for all doses estimated to be greater than 50 mSv. The Royal Commission documented individual exposures up to 300 mSv."

Group Captain Geschke commented that the dosimeter readings estimated from aircraft readings and inferred for aircrew could be misleadingly low. Ms Rabbitt Roff points out that the dosimetry study relied on "internal radiation exposures...calculated from estimates of radionuclide intakes. An assessment of internal doses requires information on the time spent performing specific tasks and the probable intakes of radioactivity during the time. Ms Rabbitt Roff goes on to highlight that the study report itself acknowledges that "some of the biggest uncertainties...are in the lack of detailed knowledge of what various participants in the UK atomic testing program were actually doing, where and for how long."

Major Batchelor, in his testimony before the Committee, commented that "because the dosimetry committee was not properly equipped to prepare work histories at the individual or workgroup level, employment designations were described in such sweeping categories as: general engineering support, all ships prior to the D + 4, transport in contaminated vehicles, logistical support for G1 and so on, with no proper description of who did what, where and when. There was some identification of specific tasks but the lack of involvement information remained a problem. It follows that dosage categorisations for individuals were based on obscure and uncertain employment groupings."

The Australian Veterans and Defence Services Council commented that "The outcome of the Dosimetry Report is that there was no hazard from radiation. This position is not acceptable in the face of the clear evidence of radiation hazard. On Tremouille Island in the Monte Bellos, to this very day, there are signs which say, "Radiation Risk Hazard, do not stay for more than one hour, do not raise dust, do not consume food, do not remove anything from the island." The submission continues "if there was no radiation hazard why did the Australian Government spend \$104 million on a decontamination of the Taranaki area of Maralinga in the late 1990s? In this context if there was a hazard that necessitated a clean-up, how much more would the hazard have been for the men who were there in the 1950s and 1960s, most of them without proper safety clothing. The manner in which the Dosimetry Report was produced, give little confidence in the integrity of its content and the conclusions, which are so fundamental to the determination of the government commitment."

Healthy Soldier Effect

Many submissions commented on the failure of the study to incorporate what is commonly referred to as the healthy worker effect – or in this case the healthy soldier effect. This refers to the phenomenon whereby mortality and morbidity within the workforce is generally lower than the general population as individuals must be generally healthy to be employable. Associate Professor Ruff identified the lower non-cancer mortality rate in serviceman and civilian contractors participating in the nuclear tests in comparison to the Australian population as evidence of the healthy worker effect.

Witnesses to the inquiry commented that the failure to adjust for this effect in the analysis of the data contributed to an underestimation of the effects of exposure to radiation. Group Captain Geschke argued that "I have little doubt that the average serviceman is healthier than the average member of the population at large...in addition to serviceman being healthier on intake most serviceman have a regimen which require them to stay fit not only through activities but also adequacy of their diet and the regular medical examinations and treatment. On this basis I believe the percentages of 18 and 23 understate the degree of higher incidence of cancers amongst participants."

Major Batchelor commented "For some reason this study only looked at the healthy soldier effect for the first two years, whereas the soldier's life is healthy for all of his life in the service. To disregard that is to mask the results of the study. It should have been stated, and there should have been an effective percentage allowance made for the healthy soldier effect." Dr Lonergan remarked "there is no doubt at all that the results that are presented in the reports would be worse if you took away the healthy worker effect. There is no question about that; the results would be worse."

Groups included and omitted from study sample

Many of the witness and submissions to the inquiry raised concern exclusion of individuals and groups from the study and the consequent effect on the findings. Associate Professor Ruff commented that "the study excludes... about 6000 – more than one third – of the estimated 17,000 individuals directly exposed to the nuclear tests, including groups likely to include highly exposed individuals, such as Aboriginal people and some pastoralists living in the vicinity of tests sites and subjected to local fallout."

In testimony before the Committee Prof Armstrong, a member of the Consultative Forum involved in the studies, commented "it is true that pastoralists and Aboriginal people were not included, and that is principally because we had absolutely no way of getting anything like a census of who they were, where they were and what they were doing."

Ms Madigan, in reference to the exclusion of Indigenous Australians, suggests that it is "astounding that the very people whose lifestyle and lack of knowledge of what was going on at the time ensured that they be potentially the most vulnerable as a group of

all those affected by the teststhis serious error...of course undermines the validity of the entire study."

Dr Williams, a member of the research team, commented that "without having done a proper scientific assessment, my guesstimate is that any Aborigines who passed through that area at that time could have potentially received similar doses to the Commonwealth Police on the basis that through any dust-raising activities, such as filling in rabbit holes, hunting for bush tucker or whatever, and by simply living in the area—a very dusty area—you were going to be exposed to the risks of inhaling plutonium. So, while Aborigines were never part of the DVA study and therefore we never had a cohort of Aboriginals to assess doses for....any who were in the area were potentially at risk."

In testimony to the committee Major Batchelor identified as critical the omission of records of some high-exposure groups from any analysis of the effects of participation in the nuclear tests, "probably the most critical evidence provided to, and ignored by, the minister was the documented level of exposure experienced in their working environment by 40 military engineers involved in the desealing of instrument bunkers one hour after the detonation of the weapon codenamed Taranaki. The dosage records for this group, the other members of the Antler Engineer Troop, members of the Buffalo Engineer Troop and the crew of HMAS *Koala* have not been published in the official records. These groups were all employed on very early re-entry and in high exposure situations."

The omission of individuals whose cancer fell outside the study data collection window of 1982-2001 was also identified as a substantial limitation to the results outlined in the study report. Associate Professor Ruff commented that "the cancer study window of 1982-2001 would have missed cancers occurring up to 30 years after the first nuclear test in Australia (1952). This is particularly relevant for leukaemia, which has a much shorter latency (approximately 5-15 years) compared with solid tumours excess leukaemia rates could have been missed by the observation period selected." Associate Professor Ruff also noted that "the absence of data since 2001 excludes cancers and deaths occurring in the last 5 years, during which elevated rates of these outcomes would be expected to continue to rise.

Concerns were also raised within evidence presented to the Committee over the omission of deaths attributed to cancer from cancer incidence figures. Major Batchelor argued that "If a person dies of cancer then his contraction of cancer should also be included in the cancer incidence numbers." In his testimony to the Committee Major Batchelor noted that "The first paragraph of the Adelaide university main findings identifies a mortality study starting from the time of the nuclear tests, and a cancer study for cases of cancer, whether fatal or not, commencing in 1982. It is important to note that the main findings state that the study of both cases of cancer and cancer deaths commenced in 1982 and provides the basis for much that follows." Dr Crouch's testimony to the Committee confirmed that "incidence was only counted after 1982 I would presume that there were cases of fatal cancer prior to 1982."

Group Captain Geschke makes the point that 17.7% of the cohort were excluded from the study analysis and findings because their date of birth was not known, commenting that "the exclusion could have slanted the results of the study". No justification is provided as to why lack of a date of birth was sufficient grounds for the exclusion of all data from these individuals.

Dr Lonergan noted that "I have seen evidence that the nominal roll of participants is deficient to the extent that some participants have been left out and others have not been correctly credited with the circumstances of their actual involvement." The nominal roll is the list of individuals who were considered participants of the nuclear tests for the basis of the studies.

The National Servicemen's Association of Australia commented that while the Department of Veterans Affairs has identified 137 Navy National Servicemen as participants of the nuclear tests, their organisation believes that the correct figure should be 400 plus.

The omission of Commonwealth Police Officers from inclusion in the epidemiological study was also identified in oral and written submissions. Dr Crouch and his colleagues argued that "they were clearly one of the most heavily exposed groups involved in the tests and their aftermath... the period used to identify the participants for the purposes of the epidemiological study was 1952-1965. Those who did not serve in the area during that period are excluded...even though many of them may have had multiple tours of duty at Maralinga and accumulated significant radiation exposures."

The Australian Nuclear Veterans' Association raised concerns about the inclusion on the nominal roll of individuals who would have had little or no exposure to radiation. Their submission states "Most of the civilians whose names appear on the nominal roll had left the test site before any tests were carried out and were put on the nominal roll purely to water down any tests or studies that would follow." Mr Johnstone, the National President of the Australian Nuclear Veterans' Association, further stated "including people who obviously had no exposure at all at any time in the studies would dilute the findings."

Dr Crouch, a member of the Study Group involved in the 2006 mortality and cancer incidence study of the Australian participants of the British nuclear test, acknowledged that "80% of that group we believe got virtually no radiation exposure at all." Paragraph 2.12 of the Committee's main report references the study's estimation that approximately 79% of the participants were assessed as receiving less than 1 mSv that is, approximately half the annual dose received from natural background radiation.

Missing and unavailable records

Difficulties accessing hospital and other records and documents were identified as problematic both for the study and wider compensation claims.

Ms Munslow-Davies commented that "History will show a history of available documents and not those that for whatever reason are destroyed, altered or mislaid.... Recently I discovered a hidden archive of documents about the British Nuclear Tests, their conduct in Australia, safety and health implications and policy of that era. Altogether there were over 3000 documents. As of today nine of these documents have been released We still do not have access to the remaining 2991 documents or many of the documents that they refer too. This is despite numerous court cases, a Royal Commission, a health study, the current health study and the passage of almost 50 years." In testimony to the Committee Ms Munslow-Davies expanded on her submission and reported that "The knowledge that the documents were missing was widespread. The Adelaide hospitals had lost their documents, hospitals at Watson had lost their documents, the hospital at Woomera had lost its records and the records at Maralinga hospital and at all the first-aid posts were gone as well." Major Batchelor also noted that the Amberley hospital records are missing as well.

Alternative Explanations

A number of submissions highlighted that none of the proffered explanations for excess cancers among nuclear test participants, offered as alternatives to ionising radiation, are satisfactory as they are not substantiated with evidence that links the participants with the hypothesised causes.

Dr Lonergan commented that "The epidemiologists tried to blame a swag of [cancers] on excess smoking. But their argument which runs like this is circular - smoking is a common cause of this set of cancers, therefore these military people must have smoked excessively, therefore they developed these cancers. Such an argument is only valid if independent evidence of excessive smoking is produced. No such evidence was produced." Dr Lonergan continues "the speculation that increased smoking prevalence in the cohort could account for excess incidences of cancers of the oral cavity, oesophagus and lung is discussed but substantially negated 'because the mortality study of nuclear test participants has shown no excess mortality from chronic obstructive pulmonary disease (COPD), a finding that would be unexpected in a population with a high smoking prevalence.'"

This inconsistency is also highlighted by Ms Munslow-Davies who states "there is no evidence to support the statement that these servicemen smoked more than the general population...There is no corresponding increase in airways disease (which you would expect if this were the case."

Similarly, in an attempt to link civilian participants to asbestos-related diseases. Dr Lonergan points out that study report makes the statement that "*many of the civilian subjects in the cohort were in the construction industry, where asbestos was commonly used, at a time when less caution was exercised than in recent years. Whether any of these subjects were exposed to asbestos during the nuclear tests is not known*". Dr Lonergan goes on to comment that no "evidence produced to show whether they were exposed to asbestos in the work they did before the nuclear tests, or

after them, or whether they differed in this or any other way from their parent population."

Ms Rabbitt Roff points out that researchers responsible for the Australian study have proffered different age structures between Vietnam Veterans samples and Australian participants in the nuclear tests as a possible explanation for the higher cancer incidence and mortality in the Australian test participants. A similar argument has been proposed for differences in cancer mortality between UK and Australian participants in the nuclear tests. However no evidence of any age difference between the cohorts is offered.

General Process Issues

The Committee received written and oral evidence that the final stages of preparation of the study report was very rushed and that criticism and comment on the report by members of the Consultative Forum and Scientific Advisory Committee was ignored. In his testimony before the committee Dr Lonergan made the point " My objections to the published reports were sent to the Repatriation Commission on 30 July and then passed by Rear Admiral Harrington to DVA for attention. They have never been answered."

In her testimony Ms Munslow-Davies reported that "We were under the assumption, going into the final [Scientific Advisory Committee] meeting, that the main findings would be reviewed, as they were seen as prejudicial (a) to the study and (b) to the veterans. This did not occur, and the final meeting of the SAC lasted for less than an hour and a half, at which time it became extremely obvious that nothing would be changed, the report was already on its way to the printers and the decisions had already been made. That was the point where I withdrew full and total support, something that I did not take lightly."

Dr Crouch, a member of the Study Group involved in the 2006 mortality and cancer incidence study of the Australian participants of the British nuclear test, confirmed in his testimony before the Committee that "there did appear to be some rush towards the end to get [the report] finalised so it could be presented to parliament."

The Democrats acknowledge that we have commented on only some of the many matters raised by witnesses and submissions to the inquiry. However, due to the short time allowed by the Government for this inquiry and the associated reporting deadline, we are limited in the issues we can address.

Conclusion

The current legislation is the Government's response to the 2006 mortality and cancer incidence study of the Australian participants of the British nuclear tests which identified increased cancer rates and cancer deaths amongst test participants.

It is now 50 years since the nuclear tests took place and many people were exposed to the radiation that has harmed them. These people have been poorly treated in the past

50 or so years. About half of the test participants have died waiting for the recognition and justice they are yet to receive.

The Democrats acknowledge that this is a difficult area to research and to find hard evidence. However evidence to the Inquiry throws doubt on the validity of the conclusions drawn by the studies. It is noteworthy that all of the criticisms of the study identify ways in which exposure to radiation and consequent illness would have been underestimated. It is disappointing that the concerns and questions raised by members of the consultative forum and others have not been adequately resolved. The Democrats are disappointed that neither Associate Professor Ruff nor Ms Rabbitt Roff, both critics of the study methodologies and findings, were invited to appear before the Committee during the course of the inquiry.

There is general recognition that participants in the tests were essentially human guinea pigs. Governments have a duty of care to their citizens, whether military personnel or civilians, and the Government has a responsibility to provide care and compensate those whose illnesses have a high probability of being connected to their exposure to hazardous activities.

It is a welcome step in the right direction that we have a bill which provides for non-liability treatment for cancer for the participants in the test, but it is disappointing that participants are still being denied the recognition and respect that they are entitled to. Equally just are demands for acknowledgement from indigenous groups and others who experiences have been completely disregarded to date.

This Government should do better. In line with the Clarke review, participants of the nuclear tests should be classified as veterans and non-warlike hazardous service status granted. This would permit easier access to a range of benefits including war widows' pensions. Paragraph 2.22 of the Committee's main report acknowledges that, according to the Clarke report, coverage as hazardous service under the VEA would provide greater entitlements than offered by this legislation. Mr Hodges, the National Veterans' Affairs Advisor for the Returned and Services League of Australia made the comment in his testimony to the Committee that "With regard to test participants in particular, yet again at the RSL national congress in September this year the motion that the service that the participants undertook during these tests be regarded as hazardous service under the Veterans' Entitlements Act was passed and again formed part of the RSL's budget submission to government.Once service has been deemed hazardous and a member of the service has been allotted to that area then that member comes under the VEA for that period of service. This means simply that compensation is payable for any disease or injury during that service that can be related to that service. For these participants this would mean that, as they came under the VEA at the time of the tests, any cancers, post-traumatic stress disorder, depression or anxiety disorder that they have been diagnosed with will be treated at departmental expense without admitting liability for compensation. This is available to all members whose service falls under the VEA and this is what this bill does in relation to cancers for the participants. As a follow-on, if a claim for compensation is made and accepted then a disability pension is payable. Then the big one: if a veteran

then dies of a war or defence caused injury or disease then the widow is entitled to a war widows pension. [the minister]has missed the point: it is not only the health care but also the compensation."

This Bill also does not go to the question of compensation. This remains an outstanding issue and one that should be dealt with expeditiously. To date only nine cases of compensation related to the effects of ionising radiation for services related to nuclear tests have been made by the Australian Government under the Safety Rehabilitation and Compensation Act 1988. As highlighted in the Bills Digest for this legislation the current compensation pathways present many difficulties for participants trying to obtain compensation. It is time-consuming, expensive and places the burden of proof on the individual who has difficulty accessing hospital and dosage records and is ill-matched to meet the resources of the Government. Nevertheless the Government, through the provision of these compensation payments to a small number of successful claimants, has acknowledged its liability for the exposure to radiation during the nuclear tests. Similarly the compensation provided by the British Government and subsequent efforts to remediate the Maralinga site is recognition of the contamination resulting from the tests. The Government has finally recognised that it has an obligation to provide at the very least cancer treatment for test participants. It should act with integrity towards those who participated in the tests and their families and stop hiding behind denials of the consequences of exposure to radiation and address the issue of compensation.

The Democrats support the Bill as it does go some way to providing assistance to Australian participants in nuclear testing in the 1950s and 60s. However this legislation is a limited and inadequate response to the needs of test participants. It does nothing to address the broader health needs of participants and their families and ignores the long-standing issue of compensation. The Government should implement the Clarke review recommendations, undertake appropriate compensation arrangements, give further consideration to the concerns about the study conduct and findings, and commit to continued data collection and epidemiological studies that include data subsequent to the 2001 cut-off for the 2006 mortality and cancer incidence study.

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