JUSTICE FOR FISKVILLE-AFFECTED PERSONS: APPROACHES AND OPTIONS

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INTRODUCTION

1.1 The Project Brief

The brief to consultant is to produce a discussion paper that sets out options for the Committee in relation to term of reference 5 of the Committee's terms of reference. This asks the Committee to identify "recommendations as are necessary to mitigate ongoing harm and to provide justice to victims and their families." In particular, the brief notes that the Committee is especially interested in learning if there are any Australian or overseas experiences that offer it guidance in meeting its terms of reference concerning justice to victims, with reference being made to the F-111 fuel tank maintenance workers' compensation scheme and work being done in relation to compensating victims of abuse at the hands of clergy and in other institutions.

By way of background the consultant is alerted to particular themes from the Committee's interim report that have emerged from the 450+ submissions received by the Committee and the oral evidence that it has heard, such themes being relevant to the task that the consultant is being asked by the Committee to perform

These particular themes are:

- Not all materials burnt at Fiskville in live fire training up to 1999 are known. However, some of these chemicals used for firefighting training are known and are undeniably carcinogenic and toxic;
- Fire-fighting foams and water used for fighting fire at Fiskville contained PFOS and PFOA. These organic compounds are also carcinogenic and toxic;
- The Monash Health Report found higher rates of particular cancers amongst people who had worked and trained at Fiskville than in the general population. Less clearly established are the levels of exposure to particular carcinogens, and mixtures of toxins, that would lead to cancer and other severe illnesses;
- There is a high level of concern amongst witnesses about cancer and possible health impacts, and many individual believe that these have not been adequately addressed by the CFA;
- Aside from CFA and MFB training, Fiskville was used by a wide range of organisations, government agencies and private companies as a training ground, and many involved in these practices feel that their experiences have not be considered;
- There are a number of people who have lived near the Fiskville site who feel that their ill health can be linked to the Training College, and that the stories of these individuals have largely been ignored; and
- There is a widespread concern that those affected by Fiskville should be able to achieve a sense of justice — which would include an acknowledgement of their experiences, appropriate health, and possibly some form of financial compensation.

Finally, attention is drawn to potentially very broad range of Fiskville 'victims' as including:

- Paid firefighters who provided training to others and engaged in training;
- Volunteer firefighters who provided training to others and engaged in training;
- Employees of private companies who firefighters who provided training to others and engaged in training;
- Employees of government agencies who firefighters who provided training to others and engaged in training;
- Families of firefighters who lived at Fiskville;
- Landowners and others who lived in the vicinity of Fiskville; and
- People who attended Fiskville Primary School (which was located on the Fiskville site).

1.2 Approach

Term of reference 5 directs the Committee to two different, yet closely intertwined, tasks; actions targeted at the mitigation of ongoing harm and measure aimed towards the provision of justice to Fiskville victims[1] and their families.

1.2.1 Mitigation of Harm

The task of mitigation of ongoing harm has two aspects. The first relates to the identification, and removal, of features of the Fiskville environment that are capable of producing further harm. This was the particular emphasis of the Joy Report which was focused upon "legacy issues such as possible site contamination that may pose an on-going risk to human health and the environment".[2] There have been a range of responses by the Country Fire Authority (CFA) in the wake of the Joy Report to address these issues[3], while the Environmental Protection Authority (EPA) has issued two Clean Up Notices to the CFA,[4] and has commissioned a section 53V of the *Environment Protection Act 1970* (Vic) audit.[5] The ongoing remediation requirements for the Fiskville site are beyond the scope of this paper.

The other aspect of the task of mitigation of ongoing harm relates to the identification of realized and emerging health issues, both in terms of physical and mental health, among Fiskville-affected persons and for dealing with those harms in an effective, expeditious and compassionate way. The term 'Fiskville-affected person' is of wide compass and includes those engaged (in whatever form) in firefighting training and allied activities at the Fiskville Training College (FTC), the families of those firefighters who lived at the FTC, teachers and students at the local primary school and landowners and others who lived in the vicinity of the FTC.

1.2.2 Providing Justice to Fiskville-affected persons and their families

Any properly constituted scheme that is fashioned to provide justice to persons who have suffered harm, must be based upon arrangements that are *appropriate*, *adequate* and *proportionate to need*.

1.2.2.1 Appropriateness

The ongoing playing out of the history of the FTC, particularly the storage and use of a range of chemicals and other agents (many of an unknown nature), that could be and were dispersed, by various means, throughout and beyond the perimeters of the FTC site, presents a number of features that provide peculiar challenges for the achievement of effective justice for those affected. The nature of these challenges are often difficult to be mediated and resolved through traditional legal and administrative processes.

First, there is the overlap and interplay between occupational and environmental risks as workplace hazards and risks extend beyond the occupational setting and into the surrounding environment and community. This includes possible economic loss that landowners may incur as a result of contamination to their land from chemicals or other agents (such as perfluorinated chemicals)

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[1] Henceforth in this paper the term 'Fiskville-affected person' will be used rather than that of 'Fiskville victim'. This is not to minimise or derogate from the harm suffered by such persons, but rather to avoid the language of victimology.

[2] Robert Joy, *Understanding the Past to Inform the Future: Report of the Independent Fiskville Investigation*, CFA, Melbourne, 2012, p.142.

[3] See Parliament of Victoria, Environment, Natural Resources and Regional Development Committee, *Inquiry into the CFA Training College at Fiskville: Interim Report*, June 2015, Section 2.5 at pp. 11-12.

[4] *Ibid*., p. 13

[5] *Ibid*., pp. 13-15; AECOM, *Environmental Audit Report – Risk to Land, Surface Water and Groundwater – CFA Fiskville Training College*, EPA Victoria, Melbourne, 2014.

discharged from the FTC site with consequent possible detriment in their ability to sell crops or stock grown or raised on that land as well as an overall devaluation of their property.

Secondly, there is the existence of elements of uncertainty at a number of levels. There is uncertainty about the identity and property of many of the chemicals stored and used at Fiskville. There is uncertainty about the nature and level of exposure, particularly by firefighters, but also others, who were involved in activities at the FTC or were otherwise present at (eg teachers and pupils at the Fiskville Primary School) or adjacent to (some local residents) the FTC. There is uncertainty as to the possible causal relationship between the sustaining of particular harms (especially certain malignancies) and the exposure to the chemicals and other agents, either in their primary form or in a transformed state through burning.

Most legal and administrative remedies require the satisfaction of some level of causal connection or aetiology between exposure to a particular agent and the sustaining of a particular harm. This connection does not have to be absolute. Depending upon the nature of the circumstances, system or scheme involved, the level or burden of proof of such connection can be pitched at different degrees – 'beyond reasonable doubt', 'on the balance of probabilities', 'a significant/ substantial contributing factor', the major cause', 'a material contribution' etc.

Attempting to ascribe causal connection between particular exposures and the contraction by an individual of a particular affliction in the Fiskville-type world is to enter the world of probabilistic causation. While resort to epidemiological analysis may be able to ascribe the likelihood or probability of occurrence at a population level, there are many factors that make such an ascription at an individual level either extremely difficult or impossible. Some of the challenges in the way of making such an ascription, in relation to occupational and environmental diseases, have been summarised by Cancer Council Victoria in a submission to the Fiskville Inquiry. These are set out in Table 1, below.

Table 1: Challenges to Establishing Causation with Occupational and Environmental Diseases

Exposure levels	Currently available data may be insufficient to determine the threshold for risky exposure levels (in terms of time, intensity and circumstances).
Multiple and competing exposures	Risk-factors may be present in work and non-work environments, and individuals are likely to move across several jobs in their life time, making it difficult to pinpoint the exact time and which exposure (if any) caused cancer. This is further complicated by the contribution of exposure to lifestyle and environmental causes of cancer (e.g. tobacco, UV radiation and alcohol) and the inability to control for all other potentially confounding exposures.
Latency periods	Different cancers have different latency periods; that is, periods between exposure to the carcinogenic agent and manifestation of the cancer, often resulting in significant gaps between exposure and diagnosis. This tends to inhibit legal fact-finding regarding what exact exposures (if any) caused cancers and at what time.
Genetic predisposition	Cancer may develop as a result of known or unknown genetic predisposition, as opposed to workplace exposure.
Low awareness about occupational and environmental carcinogens among treating doctors	Information about past exposure to carcinogens gathered by treating doctors at the time of diagnosis can contribute to the evidence base for establishing causation.

Source: Cancer Council Victoria, submission to Parliament of Victoria's Environment and Natural Resources Committee: Inquiry into CFA Training College at Fiskville, Attachment A, p.6.

1.2.2.2 Adequacy

A hallmark characteristic of an appropriate scheme of reparation is that it adequately meets the needs of those it is designed to serve. One measure of such adequacy is the manner in which such a scheme has listened to, and responds to, the articulated desires of those affected by ill/s which brought the scheme into existence,

In its Interim Report, the Victorian Parliament's Environment, Natural Resources and Regional Development Committee has noted:

> The evidence presented to the Committee thus far suggests that there is a widespread concern that those affected by Fiskville should be able to achieve a sense of justice – which would include an acknowledgement of their experiences, appropriate health monitoring, and possibly some form of financial compensation.[6]

1.2.2.3 Proportionate to Need

The design element of proportionality to need recognises that any proposed scheme or plan will operate within an existing universe of arrangements and systems for dealing with identical or similar forms of need. Where aspects of these existing arrangements are seen to be deficient, the new scheme or plan may be designed to override or replace some elements of the existing arrangements. Very occasionally the new scheme may operate as a complete substitution of the existing provisions. More often the new scheme will play a complementary role through filling in some gaps, or dealing with some narrow, technical and circumscribed issue that has arisen through the experience of a particular event or series of events.

Consequently, a crafted response to an issue or matter of need will first look at the wider context. Quite often, much of the solution can be achieved through an adjustment of measures within the existing framework. However, there will often still be remaining, sometimes residual and sometimes very important, matters that require a new and different initiative, plan or scheme in order for the needs to be adequately addressed.

1.3 Redress Scheme

The challenge for the Committee is to fashion a form or scheme of amends that can provide justice to Fiskville-affected people in relation to the principles of appropriateness, adequacy and proportionality to need. As has already been alluded to, the circumstances of the FTC, with multiple classes of affected persons, with multiple levels of uncertainty, and the related issues of probabilistic causation, presents particular challenges for justice being able to be realised through existing legal and administrative processes.

Such a situation is perhaps peculiarly suited for consideration within the purview of a system or scheme of redress. This is a notion of therapeutic justice that has, hitherto, been largely explored by inquiries and responses into the institutionalised sexual abuse of children and young persons. It is an approach that has been considered at some length by both the federal Royal Commission into Institutional Responses to Child Sexual Abuse[7] and the Victorian Parliamentary Committee Inquiry into the

[6] Parliament of Victoria, Environment, Natural Resources and Regional Development Committee, *op. cit*., p. ix
[7] See Royal Commission into Institutional Responses to Child Sexual Abuse, *Redress and Civil Litigation: Final Report*, Commonwealth of Australia, 14 September 2015.

Handling of Child Abuse by Religious and Other Non-Government Organisations[8], together with one of the Government response to this Parliamentary Inquiry.[9]

This Victorian Government response describes redress systems as "an alternative to traditional, adversarial models of compensation, such as civil litigation".[10] Some of the advantages over traditional approaches articulated by this Victorian Government response are set out in Exhibit 1, below.

Exhibit 1: Special Features of a Redress Scheme

WHEN COMPARED TO OTHER CIVIL JUSTICE OPTIONS (SUCH AS CIVIL LITIGATION), A REDRESS SCHEME:

- CAN BE DESIGNED IN CONSULTATION WITH STAKEHOLDERS, INSTITUTIONS THAT WILL PROVIDE REDRESS, AND LEGAL AND ADVOCACY GROUPS THAT MAY ASSIST PEOPLE TO CLAIM REDRESS;
- AVOIDS A NUMBER OF THE ANTI-THERAPEUTIC CONSEQUENCES OF THE CIVIL JUSTICE SYSTEM, INCLUDING DELAY, COST, FORMALITY, AND ADVERSARIAL PROCESSES SUCH AS CROSS-EXAMINATION;
- HAS THE POTENTIAL TO ALLOW GREATER FLEXIBILITY OF OUTCOMES, OFFERING A BROAD RANGE OF NEEDS-BASED BENEFITS BEYOND FINANCIAL COMPENSATION, SUCH AS COUNSELLING AND AN ACKNOWLEDGMENT AND APOLOGY FOR HARMS SUFFERED;
- ACKNOWLEDGES THAT CLAIMANTS OFTEN SEEK MORE THAN JUST A FINANCIAL PAYMENT; AND
- CAN RESPOND TO A WIDER RANGE OF AFFECTED PERSONS AND HARMS THAN TRADITIONAL LEGAL PROCESSES.

Source: Government of Victoria, *A Victorian redress scheme for institutional child abuse: Public Consultation Paper*, 5 August 2015, p. 6

While the principles underpinning redress schemes have largely been developed within the context of response to institutionalised child abuse, they are, with suitable adaptation, capable of wider applicability, including situations such as those relating to Fiskville. In both its Consultation Paper and its Final Report on Redress and Civil Litigation, the federal Royal Commission articulated three essential elements of a redress scheme, namely:

- a direct personal response that recognises the differing needs of those who seek redress from an institution;
- access to counselling and psychological care; and
- a financial payment.[11]

Indeed, some of the themes that have emerged from the process of consultation undertaken by the Fiskville Inquiry, and detailed in its Interim Report, suggest that a redress scheme approach would be highly congruent with the three elements outlined by the Royal Commission.[12]

[8] Parliament of Victoria, Family and Community Development Committee, *Betrayal of Trust: Inquiry into the Handling of Child Abuse by Religious and Other Non-Government Organisations*, November 2013.
[9] Government of Victoria, *A Victorian redress scheme for institutional child abuse: Public Consultation Paper*, 5 August 2015
[10] *Ibid*., p. 6
[11] *Redress and Civil Litigation*, *op. cit*., p. 127.
[12] See the text at footnote 6, above.

1.4 Relationship with other Schemes

However, a redress scheme may not necessarily encompass a complete answer for a justice-based response to the issues thrown up by the Fiskville experience. In particular, a more satisfactory approach to dealing with the very problematic issues of causation in relation to cancers contracted by firefighters may be more easily, directly and expeditiously effected through changes to existing workers' compensation arrangements. How this may possibly be done is considered in the next chapter.

As well, a redress system exists alongside, and does not attempt to disturb, remedies through the civil justice system. For those whose connection with Fiskville is unrelated to employment, the major likely path for compensatory relief will lie under the *Wrongs Act 1958*, the principal statute governing claims for damages for economic and non-economic loss arising from personal injury and death in Victoria, as a result of negligence or fault.[13]

Nevertheless, the great potential strength of a redress scheme is that, cognisant of the reach and strengths of other existing schemes, it can fashion measures that are crafted to complement the remedies and address remaining gaps. In the case of the situation of the impact of the operations of the FTC, many of the Fiskville-affected persons have no form of remedy or redress under these other schemes. This could be, for instance, because they are not 'workers' (either not working under a contract of employment or falling within some category of deemed worker) for the benefit of workers' compensation entitlement or, for whatever reason, are not able to find relief through an action under the Wrongs Act.

1.5 Scope

The general approach taken in this introductory chapter, and the discussion undertaken in chapter 3, is predicated on the assumption that the redress scheme initiative will be a stand-alone initiative applying only to the legacy of the Fiskville hazardous exposures. As such the necessary infrastructure and supports to underpin such an initiative would be relatively modest.

However, there have been a number of other similar situations involving the overlap of occupational and environmental hazardous exposure. Perhaps the most recent dramatic example is the Hazelwood mine fires of early February 2014 that burned for some 45 days and provided a very significant health risk to firefighters and other emergency service workers as well as to the population of Morwell and surrounding areas with an ongoing exposure to smoke and ash.

The three case examples that are set out in Appendices to this paper are primarily of relevance to this discussion– and a Fiskville-specific scheme – especially in terms of insights for the counselling and care component of a redress scheme. If there was momentum for a Fiskville scheme to be a possible nucleus for a more extensive, and more widely based, support and redress scheme, particularly with the emergent and emerging issues of the Hazelwood mine fire in mind, then some of the more comprehensive features of the Japanese pollution compensation scheme and the integrated features of the F-111 deseal/ reseal program would come into focus and deserve closer attention.

[13] The Committee's Interim Report notes that the leading personal injuries law firm, Slater & Gordon, has received instructions from up to 200 former CFA staff and volunteers to explore the prospects of civil law recovery in relation to health conditions that they believe are linked to hazardous exposures at Fiskville; Parliament of Victoria, Environment, Natural Resources and Regional Development Committee, *op. cit.*, p. 19.

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WORKERS' COMPENSATION

2.1 Introduction

In many ways workers' compensation can be said to have been the first of the redress schemes. These systems were established at the end of the nineteenth century and the beginning of the twentieth century in the Anglophonic world (two decades earlier in Germany) to meet the extreme difficulties faced by injured workers in recovering compensation for injuries sustained as a result of their employment under the law as it stood at the time. In particular, claims for compensation by these workers were met by the then 'unholy trinity' of employer defences.[14]

The early workers' compensation schemes were based on a liability requirement of not only demonstrating that an injury arose out of and in the course of a worker's employment but also that it was a 'personal injury by accident'. Under this framework, these early schemes coped tolerably well when dealing with cases of traumatic injury. However, they struggled greatly when presented with claims for occupational disease, particularly those diseases (such as lead poisoning) that arose by gradual process.

2.2 Disease Schedules

From early in the twentieth century, workers' compensation schemes attempted to deal with the difficulties for workers in demonstrating causation in relation to many occupational diseases by legislating for disease schedules. These listed a number of diseases in one column and the form of workplace activity or process with which such a disease was closely associated in an adjacent column (for instance, anthrax and wool combing). If a worker contracted a disease that was listed on the schedule and worked in the associated industry then this reversed the burden of proof so that there was set up a presumption that the disease was work related. This presumption could be rebutted by an employer or insurer adducing evidence that could convince the trier of fact that there was a more likely (non-work-related) cause of the disease.

2.2.1 Current and Emerging Arrangements

Of the 11 primary workers' compensation schemes in Australia, all except Queensland and the Military Rehabilitation and Compensation scheme[15] have a disease schedule. However these disease schedules have generally been one the more sclerotic features of Australian workers' compensation. In many jurisdictions, including Victoria, they are generally reflective of the International Labour Organization's List of Occupational Diseases under Convention 42 created in 1934 with, occasionally, one or two additions. Indeed it would appear that the Victorian schedule has not been updated in more than half a century. Some jurisdictions, such as the Northern Territory, have a more modernised form of a disease

[14] First any contributory negligence by the injured worker themselves operated as a complete defence for the employer. Secondly there was no liability placed on an employer where a worker was injured by the act of a fellow worker (doctrine of common employment). Thirdly, the courts at the time gave wide reach to the doctrine of *volenti non fit injuria* (voluntary assumption of the risk); essentially that, except in exceptional circumstances, by turning up to work the worker accepted the risks associated with that employment.

[15] While strictly this is the case, the use of Statements of Principles in this scheme provide a functional (and arguably superior) equivalent.

schedule[16], based on the structure and embodying much of the content of the ILO's 2002 List of Occupational Diseases. None of the Australian jurisdictions have gone as far as New Zealand which has essentially adopted the 2002 ILO List.[17]

The Governing Body of the ILO, in March 2010, approved a new list of occupational diseases annexed to ILO Recommendation 194, which replaces the 2002 list. This has not been taken up by any Australasian jurisdiction. However, recently, there has been a promising initiative, developed under the aegis of Safe Work Australia (SWA). In August 2013, SWA initiated a project to develop an up-to-date Australian list of deemed diseases based on the most recent scientific evidence of a causal link between diseases and occupational exposure. The project was undertaken by Professor Tim Driscoll, one of Australia's leading epidemiologists, particularly with respect to occupational disease, and was peer reviewed by Monash University's Professor Malcolm Sim. The report of this project was recently published in August 2015.[18]

The proposed list of diseases for inclusion on a workers' compensation scheme's list of deemed diseases was developed on the basis of three criteria. These criteria and their supporting bases were:

Table 2: Criteria and Supporting Bases for SWA Proposed List of Deemed Diseases

Criterion	Supporting Basis
Strong causal link between the disease and occupational exposure	For this criterion, 'strong evidence' was defined as arising from (a) categorisation by the International Agency for Research into Cancer (IARC) as Group 1—human carcinogen (for cancers), or (b) a systematic review of the evidence or multiple good quality studies showing a causal relationship between the disease and the occupational exposure.
Clear diagnostic criteria	It is important that diseases included in a scheduled list have clear diagnostic criteria. This will mean there should be little question as to whether or not the claimant really has the disease that is the subject of the claim.
The disease comprises a considerable proportion of the cases of that disease in the overall population or in an identifiable subset of the population	A considerable proportion of the cases of that disease in the overall population or in an identifiable subset of the population are known or likely to be due to the relevant occupational exposure.

Source: Adapted from Safe Work Australia, *Deemed Diseases in Australia*, Safe Work Australia, August 2015, p.6

The resulting proposed list of deemed diseases covers 47 diseases classified within seven disease classes. As well there is an eighth disease class, that of 'acute poisoning/ toxicity' involving poisoning causing damage to one or more of the heart, lungs, liver, kidney, nervous system and blood, and listing more than 40 enumerated chemical and agents as the causative means.

[16] See Schedule 2 of the Return to Work Regulations (NT) made pursuant to section 4(6)(a) of the *Return to Work Act* (NT) and Regulation 5AB of the Return to Work Regulations.
[17] See *Accident Compensation Act 2001* (NZ), sections 30(3) and 60 and Schedule 2 to this Act.
[18] Safe Work Australia, *Deemed Diseases in Australia*, Safe Work Australia, August 2015.

2.2.2 Issues in Maintaining an Up-to-Date Disease Schedule

As already mentioned, Victoria currently has one of the more primitive disease schedules among the Australian workers' compensation schemes. For instance, the Victorian schedule currently only recognises two occupational cancers, namely 'asbestosis, with or without mesothelioma' due to exposure to asbestos and 'primary epitheliomatous cancer of the skin' due to exposure to tar, pitch, bitumen, mineral oil, paraffin or compounds, products, or residues of these substances. Under the proposed SWA list of deemed diseases there is recognition of some 21 cancers.

The often very significant differences among Australian workers' compensation schemes in relation to coverage, levels and duration of benefit and a host of other issues has, for more than three decades, led to calls for greater harmonisation between, if not equality of, scheme coverage, entitlements and benefits.[19] Adoption of the SWA list of deemed diseases by all Australian jurisdictions would allow a uniform national approach to this important, but difficult, area of workers' compensation scheme coverage and not discriminate between workers according to where they live and work. As has already been mentioned, Victoria has one of the most antiquated disease schedules of any Australian jurisdiction. Action by the Victorian Parliament to adopt the SWA list would remedy this past neglect and provide a more just, evidence-based, mechanism for providing for the entitlements of workers suffering a range of occupationally-related diseases.

The prime reason for the abject neglect in reviewing and updating disease schedules in Australian workers' compensation schemes is the lack of any process, mechanism or triggering feature for requiring and undertaking such a review. In schemes, particularly those dealing with the entitlements of serving and retired military personnel, there is a framework for review and updating of the presumptive mechanisms in the light of emerging medical and scientific knowledge.

In 1994 the Australian Government requested the Repatriation Commission, in consultation with veterans' organisations, to prepare legislation to reform the process of decision making about disease causation. The aim was to create a more equitable and consistent system of dealing with claims for disability pensions received from Australian veterans and their dependants. One of the outcomes of the legislative reform was the formation of the Repatriation Medical Authority (RMA) which is an independent statutory authority responsible to the Minister for Veterans' Affairs.

The RMA consists of a panel of five practitioners eminent in fields of medical science. Their role is to determine Statements of Principles (SoPs) for any disease, injury or death that could be related to military service, based on sound medical-scientific evidence. The SoPs determined by the RMA are used in determining liability for injuries, diseases and deaths under both the *Veterans' Entitlement Act 1986* and the *Military Rehabilitation and Compensation Act 2004*.

Since its inception, the RMA has determined well over two thousand SoPs.[20] However, it has an ongoing process of review, including revocation and amendment of previous SoPs, as well as determining new SoPs. Currently there are some 351 SoPs in force covering conditions in the following areas:[21]

- Infectious and parasitic diseases (27 SoPs, including Ross River Fever and hookworm);

[19] This has included reviews by the, then, Industry Commission in 1994 and, now, Productivity Commission in 2004; see Industry Commission, *Workers' Compensation in Australia*, Report No. 36, 4 February 1994, and Productivity Commission, *National Workers' Compensation and Occupational Health and Safety Frameworks*, Report No. 27, 16 March 2004.

[20] The figure in the 2013-14 Annual Report was 2,097; Repatriation Medical Authority, *Twentieth Annual Report 2013/2014* at p.14.

[21] From the Repatriation Medical Authority website, http://www.rma.gov.au/SOP/main.htm; viewed 29 October 2015.

- Neoplasms (50 SoPs, including myeloma and non-Hodgkins' lymphoma);
- Endocrine, nutritional, metabolic diseases; disorders of the immune system (23 SoPs, including sarcoidosis and Graves disease);
- Blood and blood-forming organs (6 SoPs, including aplastic anaemia);
- Mental disorders (14 SoPs, including post-traumatic stress disorder and bipolar disorder);
- Nervous system, sensory organs (48 SoPs, including Guillain-Barre syndrome and epilepsy);
- Circulatory system (28 SoPs, including cardiomyopathy and rheumatic heart disease);
- Respiratory system (11 SoPs, including asthma and asbestosis);
- Digestive system (27 SoPs, including coeliac disease and irritable bowel syndrome);
- Genitourinary system (9 SoPs, including endometriosis and erectile dysfunction);
- Skin and subcutaneous tissue (19 SoPs, including chloracne and psoriasis);
- Musculoskeletal system and connective tissue (40 SoPs, including osteoarthritis);
- Congenital abnormalities/ hereditary conditions (16 SoPs, including Huntington's chorea);
- Injury conditions (26 SoPs, including decompression sickness and frostbite);
- Other conditions (7 SoPs, including chronic fatigue syndrome).

The process and mechanisms for reviewing and updating the disease schedules in Australian workers' compensation should, ideally, be entrenched at the national level. The logical choice for a body to be vested with this responsibility is SWA. If however, SWA was unwilling or unable to perform this function, then WorkSafe Victoria or a similar entity should be mandated to undertake this role at specified intervals of time. As will be seen in the following section of this paper, with respect to presumptive cancer legislation for firefighters, there is provision in such legislation in three jurisdictions for a periodic review of the presumptive provisions and any need for their revision.

2.3 Presumptive Cancer Legislation for Firefighters

2.3.1 Introduction

The notion of presumptive cancer legislation for firefighters is simply a more particularised application of the deemed diseases arrangements. There is thus a list of prescribed cancers/illnesses, each with a specified period of qualifying exposure as a firefighter in active firefighting activities. Consequently, in order to be brought into the operation of the presumptive framework, a firefighter would need to show that:

(a) they suffered from the prescribed cancer/ illness;
(b) they had been employed as a firefighter for the requisite qualifying period of exposure; and
(c) that this exposure was undertaken in active firefighting duties, expressed in terms of the 'hazards of fire' or some similar terminology.

Having satisfied these criteria the presumption operates to make the firefighter's condition compensable. In order for this not to happen, the burden shifts to the contesting party, presumably the firefighter's employer, to adduce evidence in support of a proposition that the disease is due to some other factor that is not work-related.

2.3.2 Background

Presumptive legislation for firefighters has been pioneered in North America with the most notable developments being in Canada. Following a report by Dr Tee Guidotti and Dr David Goldsmith to the

Workers' Compensation Board of Manitoba in March 2002,[22] Manitoba enacted Canada's first presumptive cancer legislation for professional firefighters later that year. This legislation extended that presumption to brain, bladder and kidney cancer, non-Hodgkin's lymphoma and leukemia. In 2005 Manitoba further amended its Workers Compensation Act to extend presumptive coverage to part-time and volunteer firefighters and to add ureter, colorectal cancers, lung cancers in non-smokers and heart injuries within 24 hours of an emergency response to those conditions presumed to be work related.

Since the Manitoba initiative, most Canadian provincial workers' compensation schemes have adopted presumptive firefighter cancer legislation of some description.

In Australia, the first workers' compensation scheme to adopt a system of presumptive recognition of firefighters' cancers was the federal Comcare system. The *Safety, Rehabilitation and Compensation Amendment (Fair Protection for Firefighters) Act 2011* took effect with respect to injuries sustained on or after 4 July 2011. This was followed by legislation in South Australia, Tasmania, Western Australia and the Northern Territory. The latest jurisdiction to enact such presumptive legislation is Queensland on 17 September 2015.

2.3.3 Stalled Victorian initiative

On 7 December 2011, the Accident Compensation Legislation (Fair Protection for Firefighters) Bill 2011 was introduced into the Legislative Council by Greens MP, Ms Colleen Hartland, MLC. The Bill sat on the Notice Paper throughout 2012 until a second reading of the Bill occurred on 6 February 2013. However, on 20 February 2013, the President of the Legislative Council ruled that the Bill was in breach of section 62(1) of the *Constitution Act 1975* and ordered its withdrawal.[23] The Bill was referred to the Economy and Infrastructure Legislation Committee on 17 April 2013. That Committee reported in June 2013. On the constitutional issue it found that, if a narrow purposive interpretation of section 62(1) of the *Constitution Act 1975* was applied, the Bill did not infringe that section. However, if a broader interpretation was applied, taking into account the effects of the Bill and what was legally possible as a result of the Bill, the Bill may infringe section 62(1).

The Hartland Bill proposed to add a new section 86A into the *Accident Compensation Act 1985* (ACA). The content of this proposed provision, with respect to career firefighters essentially replicated that legislated by the Commonwealth in 2011. Apart from allowing claimants, who had previously had a claim for compensation rejected, to reapply under the new provisions, the major difference from the Commonwealth measure was that one subsection of the proposed new section 86A provided that, if Mr Brian Potter or his dependants made a claim in respect of a disease that he is suffering, or had suffered, and that, if such a disease was one of the listed 12 primary site cancers, then the disease would be deemed to be due to the nature of his employment.[24]

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[22] Tee L Guidotti and David Goldsmith, *Evaluating Causation for Occupational Cancer Among Firefighters: Report to the Workers' Compensation Board of Manitoba*, March 2002

[23] The relevant part of section 62(1) states that "A Bill for appropriating any part of the Consolidated Fund or for imposing any duty, rate, tax, rent or impost must originate in the Assembly." The President of the Legislative Council was of the view that, while the Bill itself didn't appropriate money from the Consolidated Fund (as the scheme under the then *Accident Compensation Act 1985* (ACA) was not funded by the budget) it did propose to extend benefits under the ACA scheme, through the introduction of a presumption of work connection for specified cancers, thereby possibly leading to an increase in the cost of premiums payable by employers under the compulsory WorkCover insurance policies.

[24] Brian Potter was the Chief Officer of the Country Fire Authority from June 1985 to his resignation in November 1991. He was formerly head of training at Fiskville and was a crusader for an inquiry into the practices at Fiskville. He suffered from a number of cancers which he attributed to his time at Fiskville, but for which compensation had been denied. Brian Potter died on 12 February 2014.

The Bill would have amended the *Workers Compensation Act 1958*, in the same manner as was proposed in section 86A for the ACA, to apply the same changes for persons employed as firefighters before 1 September 1985. Similarly it proposed to amend the *Country Fire Authority Act 1958* to alter the interpretation of the Country Fire Authority Regulations 2004 and applying the presumption of employment connection, in relation to the 12 listed cancers, for CFA volunteer firefighters.

The Bill also would have required the relevant Minister to put into effect an independent review of the operation of the amendments made by the Bill, to be undertaken and completed by 31 December 2015.

During the 2014 election campaign both major parties committed to enacting firefighter presumptive cancer legislation. Legislating to this end would be a significant step in assisting firefighters deal with the difficult issues of causation that they currently face.

2.3.4 Summary of Australian coverage provisions

Generally, the jurisdictions later in time in terms of this enactment process have been less restrictive in relation to coverage and in the a priori conditions required in order to benefit from the presumptive provisions.

2.3.4.1 Coverage of cancers

The initial federal Bill provided for a presumptive regime that would operate in respect of seven primary site cancers. Following the report from the Senate Standing Legislation Committee on Education, Employment and Workplace Relations, this was extended to twelve primary site cancers.

This is now the Australian standard. These twelve primary site cancers and the requisite qualifying period of service associated with each of these cancers has been adopted, unchanged, by each successive jurisdiction that has enacted such presumptive legislation. These cancers and the necessary qualifying period of service are listed in Table 3 below. The only variation is that the Commonwealth and Western Australia explicitly provide for the possible addition of other cancers "of a kind prescribed for this table".

2.3.4.2 Coverage of firefighters

Under both the Commonwealth arrangements and those currently in Western Australia, the presumptive coverage only applies to career firefighters and not to volunteer firefighters. The Western Australian Minister for Emergency Services, in October 2014, announced that the Government had approved legislation to extend presumptive coverage to current and former volunteer firefighters, Department of Parks and Wildlife firefighters and former Department of Fire and Emergency Services firefighters. However, this initiative appears to be stalled at the moment.

There is coverage for volunteer firefighters under the Tasmanian, South Australian, Northern Territory and Queensland legislative arrangements. However the Tasmanian arrangements stipulate additional requirements, beyond the mandated qualifying periods for the twelve recognised cancers, in relation to volunteer firefighters. Where the claim from a volunteer firefighter relates to brain cancer and leukaemia, that person must have attended at least 150 exposure events within any five year period, and this number of exposure events within a ten year period for claims concerning the other ten cancers.[25] The Northern Territory arrangements have copied these Tasmanian provisions and applied them to Northern Territory volunteer firefighters.

[25] The initial Tasmanian Bill required both career and volunteer firefighters to demonstrate a minimum of 520 exposures over any 10 year period of fire service or at least 260 exposures over any five year period of service.

Table 3: Recognised Cancers and Prescribed Qualifying Periods for Presumptive Entitlement

Recognised Cancer	Qualifying Period
Primary site brain cancer	5 years
Primary site bladder cancer	15 years
Primary site kidney cancer	15 years
Primary non-Hodgkins lymphoma	15 years
Primary leukaemia	5 years
Primary site breast cancer	10 years
Primary site testicular cancer	10 years
Multiple myeloma	15 years
Primary site prostate	15 years
Primary site ureter cancer	15 years
Primary site colorectal cancer	15 years
Primary site oesophageal cancer	25 years

2.3.5 Issues concerning presumptive firefighter cancer legislation

The experience of the five Australian workers' compensation jurisdictions that have legislated for presumptive firefighter cancer provisions in their workers' compensation arrangements raises a number of questions and issues that any renewed initiative from the Victorian Parliament will need to address.

2.3.5.1 Coverage of cancers

The first matter is that of the coverage of cancers. One of the few matters upon which there is a current consensus among the five sets of legislation is the twelve specified cancers and their attendant qualifying period of fire service. As noted, two jurisdictions (Comcare and Western Australia) have an explicit provision that recognises the future addition of other cancers.

Mention is made in the next chapter of the two firefighter health and cancer risk studies conducted by the Monash Centre for Occupational and Environmental Health (MCEOH). The first of these was a Fiskville specific review and the second a nation-wide study of firefighter' mortality and cancer risks. Both studies found that the risk of contracting melanoma, a cancer that does not appear on the existing presumptive entitlement schedules, was significantly higher among firefighters than among the Australian population generally. In the light of this strong evidence, there is a case for the Victorian Parliament, when it comes to again dealing with the issue, to widen the coverage of cancers covered by presumptive entitlement to include melanoma.

2.3.5.2 Coverage of firefighters

The emergent Australian consensus is that presumptive legislation should extend to both career and volunteer firefighters. Only the Commonwealth and Western Australia confine their coverage to career firefighters and the latter jurisdiction has undertaken to legislate to cover volunteer firefighters. In terms of justice, it is difficult to discern a rationale for excluding volunteer firefighters from coverage. If this is the case (and coverage should extend to volunteer firefighters) then the remaining issue is whether there should be some additional requirement, in terms of minimum exposure events, such as is the case in Tasmania and the Northern Territory.

As already noted the original Tasmanian legislation had (a higher) minimum exposure event requirement for both career and volunteer firefighters. In the course of the legislative process this requirement for career firefighters was removed on the basis that it could be presumed that nature of career firefighting meant that, almost universally, such a minimum exposure would be exceeded as a matter of course. It was retained for volunteer firefighters because, it was argued, their firefighting attendance could often be quite episodic and therefore a minimum exposure requirement could be justified.

However the issue of 'an exposure event' is not entirely straightforward, particularly in relation to the context of volunteer firefighters, especially in Victoria. The wide extent of dry sclerophyll forests and the nature of summer weather patterns in Victoria are two features that mean that the State is prone to major wildfires. This can mean that firefighters, in situations such as Ash Wednesday and Black Saturday, can be engaged in continuous firefighting operations for many days on end. It would be unfair that such continuous operations would be counted as one exposure event. Accordingly, there would be a need (as eventually occurred in Tasmania) to designate every day of firefighting operations as a separate exposure event.

The latest jurisdiction to enact presumptive legislation, Queensland, has taken the view that career and volunteer firefighters should be treated equally in terms of entitlement to the presumptive provisions and that the only exposure prerequisites that should apply are those relating to the qualifying periods of fire service that attach to each of the listed cancers.

2.3.5.3 Retrospectivity

All of the current firefighter cancer presumptive legislation has some degree of retrospectivity, though usually this is to the date that the legislation was introduced into Parliament rather than the date upon which it received assent. A variant upon this limited retrospectivity, in the case of any future Victorian initiative, would be to make it retrospective to the date that the Hartland Bill was introduced into the Victorian Legislative Council, namely 7 December 2011.

However, in terms of a justice perspective, no or limited retrospectivity leaves those firefighters who have an already diagnosed cancer (of the type recognised in the legislation), the diagnosis of which occurred before the commencement date of the legislation, out in the cold.

A major concern that is raised in relation to allowing open retrospectivity to presumptive entitlement is that of the cost impact of so doing. However, on the available evidence, such a concern appears to be highly overplayed. The Senate Education, Employment and Workplace Relations Legislation Committee considered the Bill which became the *Safety, Rehabilitation and Compensation Amendment (Fair Protection for Firefighters) Act 2011*. It took evidence from the Fire Chief of the Edmonton Fire Rescue Services in Canada, Ken Block. He informed the Committee that the cost impact of presumptive

legislation in Canada had been 'minimal if not negligible'[26] and evidenced the experience of the Province of Alberta, which had introduced presumptive legislation in 2003, with seven listed cancers, and had progressively expanded that coverage to 14 cancers. With 13,500 firefighters in Alberta (3,500 full-time firefighters and 10,000 volunteer or part-time) there had been only 19 claims for occupational cancer lodged with the Alberta Workers Compensation Board in the period 2006 to 2010.[27]

Similarly, in a report to WorkSafe Tasmania, in June 2015, Finity Consulting Pty Ltd reported that since the commencement of the presumptive legislation in Tasmania there had only been one claim made under these provisions. Finity had provided the original costings for WorkSafe Tasmania and had estimated that around four claims would be made each year under the presumptive legislation provisions. What had transpired was a lower number of claims but at a higher claims cost than their original estimations. Finity also reported that, at the time of their report, there had been "no discernible impact on premiums as the result of the presumptive cover".[28]

2.3.5.4 Review

Medical and epidemiological knowledge in the area of cancer causation, especially through the work of the International Agency for Research on Cancer, is continually developing. As was mentioned in relation to the discussion, above, on occupational disease schedules, a hallmark of a modern scheme is the entrenched process for periodic review of arrangements in the light of ongoing research and knowledge. Accordingly, it would appear appropriate for any future Victorian legislation dealing with firefighter cancer presumptive entitlement to incorporate such a review mechanism in its provisions.

[26] Senate Education, Employment and Workplace Relations Legislation Committee, *Report on the Safety, Rehabilitation and Compensation Amendment (Fair Protection for Firefighters) Bill 2011 [Provisions]*, September 2011, para 3.38.
[27] *Ibid*. paras 3.39 – 3.40.
[28] http://www.workcover.tas.gov.au/__data/assets/pdf_file/0018/324162/L_Nov14_legislation_review_FINAL.pdf; accessed 29 October 2015.

3

FISKVILLE REDRESS SCHEME

3.1 Introduction

Any system of redress or compensation has to address three minimal questions: who is covered for what and in which circumstances. In the case of workers' compensation the response is in terms of "a worker" in relation to an "injury" (defined to include a disease or illness) that "arose out of or in the course of employment". In relation to a Fiskville redress scheme, this schema will need to be determined by adopted policy decisions as to whether there are any precursor conditions for a 'Fiskville affected person' to gain access to the redress scheme and, then, which triggering conditions will determine which level of access to which benefits of the scheme.

3.2 Universal or conditional access?

In the case of the Fiskville situation the "who" component relates to the range of Fiskville-affected persons. As noted in the introductory chapter of this paper, this is a wide group of persons exposed to the risks of the activities undertaken at Fiskville in occupational and non-occupational ways. However, what may appear seemingly simple in respect of who can be regarded, in the abstract, as a Fiskville-affected person, may become more nuanced and complicated when decisions have to be made in relation to either (a) any access or (b) the level of access to a Fiskville redress scheme. For instance, would the scheme apply to a pupil at the Fiskville Primary School who contracted a condition that would trigger coverage within the scheme if that pupil had attended the school for only one day? If not, when would the decision change: attendance for one week, one month, one term or one year?

There is no single, pre-ordained, correct decision. Where any line (or no line) is drawn depends upon policy decisions as to what a redress scheme is designed to cover or achieve. Consequent upon that decision there will need to be, for certainty of administration of the scheme, very clear 'bright' lines as to 'who' is entitled to access 'what'. A striking feature of the schemes and arrangements set out in the Appendices to this paper is the very precise definitional conditions that apply in relation to 'who' can access 'which' benefits of the arrangement.

However, it is important to note that there can be fluidity in the application of definitional criteria. For instance, there may be a case that there be universal access (including to the former school child who has attended the school for one day) to some level of benefit (for instance, with respect to counselling, care or treatment) regardless of the degree of exposure and likelihood of causation. For instance, under the Australian participants in British Nuclear Tests scheme, detailed in Appendix 1, there is no liability health care treatment for all cancers, regardless of causation, for anyone falling within the category of a 'nuclear test participant'.

The issue of differential categorisation of scheme participants becomes a pressing issue in two main situations. The first is where there is a threshold that needs to be crossed in order to access any or particular scheme benefits. The second is where the scheme provides a calibrated monetary benefit of differing amounts. In both these general situations there is the need for some determining criterion or set of criteria to make the distinguishing judgments that are required.

3.2.1 Need for a Register of Fiskville-affected persons

As an administrative prerequisite for the operation of a Fiskville redress scheme, a register that encompasses anyone who has had an association with the FTC needs to be created. This would include those engaged in training activities (as a trainer/ teacher, support staff or trainee), anyone who lived on the grounds of the FTC, anyone (teacher, pupil or support staff) who was involved with the Fiskville Primary School during the time of the operations of the FTC, and adjacent landowners and residents.

3.3 Criteria for differentiation

The general basis upon which differential categorisation proceeds is on some form of comparative risk assessment. However the approach taken, or tools utilised, to conduct such an assessment vary.

3.3.1 Qualitative Assessment of Risk

Indeed an attempt to provide a differential assessment of risk between affected groups was undertaken in the course of the first investigation into the situation at Fiskville, the CFA-commissioned investigation undertaken by Robert Joy. This involved a qualitative assessment of the relative risks of chronic exposure of various groups to particular hazardous materials – flammable chemicals, combustion products, foams and recycled firewater. Each group was given a exposure risk rating – either high, medium, low, very low or negligible – in relation to each of these hazardous materials, together with an overall risk of exposure on this scale. These results are set out in Table 4.

Table 4: Qualitative Assessment of Relative Risks of Chronic Exposure of Various Groups – Fiskville [1971-1999]

Groups	Materials				Overall Risk of Exposure
	Flammable Chemicals	Combustion Products	Foams	Recycled Firewater	
PAD Workers	High	Medium	Low	Low	High[1]
Instructors (full-time)	Low	High	Medium	High	High
Instructors (volunteer and regional staff)	Very Low	Medium	Low	Medium	Medium
Trainees (practical firefighting)	Very Low	Low	Low	Low	Low
Trainees (regional officers - 1970s)	Low	Low	Low	Low	Low
Other employees and residents	Negligible	Very Low	Negligible	Negligible	Very Low
Students and teachers	Negligible	Negligible	Negligible	Negligible	Negligible
Trainees (non-practical firefighting)	Negligible	Negligible	Negligible	Negligible	Negligible
Persons off-site	Negligible	Negligible	Negligible	Negligible	Negligible

Note

1. Based on giving particular weight to the groups' frequent and long-term exposure chemicals via inhalation and absorption.
2. Students who were residents at Fiskville are seen as belonging in the "Other employee and resident group"

Source: Robert Joy, *Understanding the Past to Inform the Future: Report of the Independent Fiskville Investigation*, CFA, Melbourne, 2012, Table 7.1

It should be noted that the in commissioning Mr Joy to undertake his Fiskville investigation, the CFA did not task him with an examination of the possible health effects upon the range of people exposed to chemicals and other products and the various uses to which they were put at Fiskville. Indeed, this point is, in fact, made very explicitly by Mr Joy himself in his report, stating:

> The Investigation is not a health study. As a consequence, some people will be disappointed by its findings, in particular, by the fact that it does not draw conclusions about possible linkages between past training practices and ill health experienced by some of those who trained, worked or lived at Fiskville. The Investigation was never intended to address such issues. Rather, it provides the background and context for any future health study.[29]

Indeed there has been some criticism some of the risk values ascribed by Mr Joy to particular groups involved at Fiskville, especially some of those given a 'low' rating or below.[30] As well, much of the evidence taken by the Fiskville Inquiry, either by submission or oral evidence, suggests a much greater degree of exposure to debris, smoke and contaminated runoff than is accounted for in the Joy Report.[31]

3.3.2 Firefighter Cancer Risk Studies

Largely in response to criticisms of the failure of the Joy Report to adequately address the health effects of exposures at the Fiskville site, the CFA did commission two studies with respect to the cancer risk to CFA firefighters who worked and trained at Fiskville. The first was by Cancer Council Victoria (CCV) and the second by the Monash Centre for Occupational and Environmental Health (MCEOH). This Monash Centre has also conducted a nation-wide study of firefighter' mortality and cancer risks for the Australasian Fire and Emergency Service Authorities Council. The major findings of these studies have been canvassed in the Inquiry's Interim Report.[32]

The two reports dealing with Fiskville firefighters used the Joy risk framework of 'high', 'medium' and 'low' exposure. While the CCV study found that, overall, firefighters that worked or trained at Fiskville did not have an increased incidence of cancer compared with the general Australian population, those in the 'high' risk group had a 62 per cent increased risk of cancer.[33]

In the MCEOH study the overall finding was that, for the Fiskville firefighters as a whole, the observed number of all cancers was slightly in excess of the expected number of cancers, but with an overall significantly increased risk of brain cancer and melanoma. In the 'high' risk group, there were statistically significant higher than expected cancer rates of melanoma and cancer of the testis. In the medium group, the study found a statistically significant excess risk of brain cancer. Using the 'low' risk group as a reference group and comparing it to the other groups, the study found a significant and

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[29] Robert Joy, *Understanding the Past to Inform the Future: Report of the Independent Fiskville Investigation*, CFA, Melbourne, 2012, Table 7.1

[30] For instance, Dr John Ferrier (submission 10 to the Inquiry) mentions his own cancer experience and Fiskville exposure as well as the death, from melanoma, of a former Head Ranger of Parks Victoria who taught at Fiskville during the 1980s and questions Mr Joy's methodology. Another submitter, CFA Station Officer, Tony Ford (submission 12) points out that, to reach the rank of Station Officer, a CFA officer would have had to have spent at least 52 to 55 weeks at Fiskville and that he, himself, had spent at least 70 weeks there in various training capacities.

[31] See the summary of submissions and public hearing evidence during the course of the Inquiry to date, Parliament of Victoria, Environment, Natural Resources and Regional Development Committee, *Inquiry into the CFA Training College at Fiskville: Interim Report*, June 2015, at pp. 42-3.

[32] *Ibid*., pp. 15-19.

[33] Cancer Council Victoria, *An analysis of cancer risk experienced by fire fighters who were trained at Fiskville*, Cancer Council Victoria, Melbourne, 2014, p.2.

level-related difference between the 'high' and 'medium' groups, compared to the 'low' risk group in relation to cancer incidence.[34]

Both studies placed considerable caveats around what could be drawn from their findings, due to small numbers overall and particularly small cohort sizes, and lack of completeness of information about other known cancer risks (eg lifestyle) concerning the study group. Notwithstanding this, the MCEOH study argued that:

> it was sufficiently powered . . . to identify significantly increased risks of melanoma, brain cancer and testicular cancer in subgroups of the cohort even though these increases were based on small numbers.[35]

The second MCEOH study involved much greater numbers (232,871 current and former Australian firefighters who started their careers between 1976 and 2003), compared with cohorts of 599 and 606 in the CCV and MCEOH Fiskville studies, respectively. This cohort was divided into career full-time, part-time paid and voluntary firefighters. The study found that male full-time firefighters had an increased incidence of cancer compared to the Australian population. This increased incidence was particularly pronounced in those who had worked for more than 20 years, especially with respect to the risk of melanoma, kidney and prostate cancers.[36] For male part-time paid firefighters, the finding was a significantly increased incidence of cancer, particularly melanoma and prostate cancer, compared with the Australian population.[37] Male volunteer firefighters were not found to have an overall higher cancer risk, compared to the general Australian population, apart from an increased risk of prostate cancer, particularly in those of more than ten years fire service.[38] There were too few female firefighters in the cohort for a meaningful analysis of their relative cancer risk.

3.3.3 Weight of Evidence

The former Royal Australian Air Force base at Point Cook had an active military firefighting training centre located within it. Military firefighters trained at this site using fire pits for simulation. These military firefighters also used the Fiskville Training College for fire training as well.

The emergence of cancer clusters amongst military firefighters who had trained at the Point Cook site led the Department of Veterans' Affairs (DVA) to commission Dr Graeme Peel to review around 75 medical and case service files and provide recommendations concerning occupational exposure and any linked health outcomes. As well, DVA engaged the well-known American authority on firefighter health, Dr Tee Guidotti, to provide a report on the Point Cook military firefighters. The brief given to Dr Guidotti included the provision of an overview of the current risks and health outcomes associated with firefighting. Dr Guidotti undertook an extensive review of the literature and gave a ranking of risk based on this review according to a 'weight of evidence' framework. A summary of Dr Guidotti's classificatory schema is set out in Table 5.

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[34] Deborah Glass, Malcolm Sim, Sabine Pitcher, Anthony Del Monaco and Stephen Vander Hoorn, *Fiskville Firefighters' Health Study*, Monash University Centre for Occupational and Environmental Health, Melbourne, 2014, p. 34.
[35] Ibid., p. 42.
[36] Deborah Glass, Malcolm Sim, Sabine Pitcher, Anthony Del Monaco and Stephen Vander Hoorn, Final Report *Australian Firefighters' Health Study*, Monash University Centre for Occupational and Environmental Health, Melbourne, 2014, p.11.
[37] Ibid., p. 13.
[38] Ibid.

Table 5: Weight of evidence classification of chronic conditions associated with firefighting

Weight of Evidence	Conditions
Conditions demonstrating elevated risk among firefighters, weight of evidence sufficient to make a recommendation on general causation	• Heart attacks following an alarm or knockdown by up to 24 to 72 hours, resulting in disability • Acute respiratory failure and decompensation within 24 hours of an event (toxic inhalation, pulmonary edema), resulting in disability • Asthma, irritant induced (associated with a particularly intense event or exposure history) • Bladder cancer • Kidney cancer • Testicular cancer • Lymphoma (Diffuse large B-cell lymphoma and follicular cell lymphoma; others unclear and require individual analysis) • Leukemia (Acute myeloid leukemia) • Brain cancers (Glioma is most likely to be related to firefighting) • Lung cancer in a firefighter with little or no smoking history • Mesothelioma • Cancer of the lip • Breast cancer among males • Amyotrophic lateral sclerosis • Noise-induced hearing loss • Post-traumatic stress disorder and reactive depression (requires compatible history and diagnosis)
Conditions for which elevated risk of firefighters is suggested by the current weight of evidence: but which require qualification in a recommendation on general causation	• Accelerated decline in lung function in a non-smoker usually not associated with impairment; history of inadequate respiratory protection) • Asthma, irritant –induced (sufficient to cause respiratory impairment) • Chronic obstructive airways disease with minimal or no smoking history (fixed airways obstruction, not "chronic obstructive pulmonary disease" as term is generally understood) • Colon cancer (for individuals with a low a priori risk) • Melanoma (taking into account sun protection, lifestyle, and location) • Myeloma (overall; cannot differentiate by type at the present time) • Parotid gland tumours (suggest case-by-case evaluation) • Nasal sinus cancer (in the absence of other exposures) • Traumatic injury resulting in impairment leading to disability (must be individualy considered) • Musculoskeletal disorders (chronic) resulting in impairment leading to disability (must be individually considered
Conditions for which evidence of elevated risk of firefighters is not sufficient to make a provisional recommendation on general causation – individual evaluation is recommended	• Sarcoidosis • Thyroid cancer • Esophageal cancer • Basal and squamous cell carcinomas (taking into account sun protection, lifestyle, and location) • Laryngeal cancer • Prostate cancer (below age 60) • Infectious disease
Conditions for which evidence of elevated risk of firefighters is not sufficient to make a provisional recommendation on general causation but association is unlikely – individual evaluation is recommended	• Prostate cancer (above age 60) • Glomerulonephritis • Infertility and birth defects in offspring (particular reference to heat exposure during pregnancy)

Source: Guidotti, TL, *Health Risks and Occupation as a Firefighter* – A report prepared for the Department of Veterans' Affairs, Commonwealth of Australia, February 2014, pp. 7-9

There thus exists a range of approaches for attempts to provide differential access to benefits, if that is a necessary element of scheme design, based on some form of comparative risk assessment. Any judgment as to which approach could or should be adopted as a basis for scheme design will depend on factors such as the perceived methodological rigour of a particular approach and, especially its actual or potential operational utility. On this basis, the Guidotti weight of evidence framework probably has the greatest promise for providing an evidence-based tool that can provide the basis for, where necessary, a scheme that can cater for elements of differentiated access to redress scheme benefits. Importantly, it also deals with a range of conditions beyond cancers.

3.4 Possible Elements of Fiskville Redress Scheme

3.4.1 Introduction

It was noted above that the federal Royal Commission into Institutional Responses to Child Sexual Abuse saw a redress scheme as embodying three essential elements, namely:

- a direct personal response that recognises the differing needs of those who seek redress from an institution;
- access to counselling and psychological care; and
- a financial payment.

Similarly it was seen that what has emerged from the consultation process during the Fiskville Inquiry was some clear themes that those affected by Fiskville saw that the realisation of a justice response to their condition would include an acknowledgment of their experiences, appropriate health monitoring, and possibly some form of financial compensation.

3.4.2 A Direct Personal Response - Apology

There is some evidence that apologies can have positive psychological and health benefit effects. A process of Open Disclosure has been developed by the Australian Commission on Safety and Quality in Health Care for doctors and hospitals to use where patients experience adverse events as the result of health care procedures. In a study of 23 people, from four Australian states, who had experienced an adverse event and who had gone through the Open Disclosure process, all but one appreciated the opportunity to meet with medical staff and have the adverse event explained to them. An analysis of the participants' responses indicated that a combination of formal Open Disclosure, a full apology, and an offer of tangible support had a higher chance of gaining the participants' satisfaction than if one or more of those components was missing.[39]

In order for an apology to have validity and authenticity as a form of redress, it must involve a sincere acknowledgment, by a senior officer of the organisation concerned, of the gravity of the events for the person/s affected, an acceptance of responsibility and the expression of contrite regret. The particular elements that collectively make up the basis of a true public apology have been distilled by the New South Wales Ombudsman into the "Six Rs' which are set out in Table 6, below.

[39] Rick Iedema, Roslyn Sorensen, Elizabeth Manias, Anthony Tuckett, Donella Piper, Nadine Mallock, Allison Williams and Chistine Jorm, Patients' and family members' experiences of open disclosure following adverse events, *International Journal for Quality in Health Care*, 2008, 20(6): 421

Table 6: The 'Six Rs' of a Public Apology

Recognition	including a description and recognition of the wrong and an acknowledgement of the harm caused.
Responsibility	an acceptance of responsibility.
Reasons	an explanation of the cause.
Regret	an expression of sincere sympathy, sorrow, regret, remorse and/or contrition.
Redress	an indication of the action taken, proposed or offered to address the problem and a promise that it will not reoccur.
Release	a request for forgiveness (optional, but important).

Source: NSW Ombudsman, *Apologies – a practical guide*, 2nd edition, Sydney, March 2009, para 3.3.

3.4.3 Access to Treatment, Care and Support

One of the anti-therapeutic consequences of the civil justice system that a redress scheme can address is that of delay. This is especially important in dealing with the immediate medical and support needs of persons affected by disease conditions and the strain this places on their families. Such early, necessary, support can be established by way of a non-liability response.[40]

A major impetus for the Interim Health Care Scheme (IHCS), as the initial element of the F-111 deseal/ reseal redress scheme (F-111 DSRS scheme) was the understanding that a number of the precursor requirements for the full establishment of the scheme (particularly the conclusion of a major health study) would take some considerable time to complete. In the interim it was recognised that there needed to be 'sympathetic advice and treatment' for those DSRS workers awaiting resolution of their claims for compensation. While originally the decision was that such an entitlement would continue until the exhaustion of all avenues of appeal, this was later overturned and participants were able to have access after compensation eligibility had been denied.

A Doctors' Advisory Committee, with specialist expertise in Air Force occupational and environmental health, agreed a tranche of conditions that could be accommodated within the IHCS. In doing so, this Committee took a generous view as to inclusion in light of the then uncertainties as to causation. The level of access to the IHCS was determined by the categorisation by the RAAF of a person as being

[40] Indeed the provision of counselling support has been an integral part of the Fiskville Inquiry process. The Committee notes in its Interim Report that: "The Committee has ensured that all vulnerable witnesses to this Inquiry have had made available to them the offer of services of the Department of Justice and Regulation's Community Operations and Victims Support Agency. An independent helpline was established early in the Inquiry to assist with any inquiries from the public regarding Fiskville, and to refer callers to relevant support agencies, including referrals for medical support. This helpline will continue through the life of the Inquiry"; *Interim Report, op. cit*., p.ix.

either of Group 1 or Group 2 status.[41] This differential access, by way of group categorisation, continued under the successor program to the IHCS, the SHOAMP Health Care Scheme.

Under the *Australian Participants in Nuclear Tests (Treatment) Act 2006*, non-liability health care treatment for all cancers, irrespective of causation, is provided for all Australian military personnel, Australian Public Service employees and third party civilian contractors who participated in the British Nuclear Test Programs in Australia. Those eligible under these arrangements are issued with a 'White Repatriation Health Card - For Specific Conditions', which allows them to access treatment for all cancers at expense of the Department of Veterans' Affairs when they visit a DVA provider who agrees to treat them under DVA health arrangements.

If there was a decision in a Fiskville redress scheme to allow non-liability medical treatment and other support for a Fiskville-affected person, and perhaps their families, there would need to be decisions made as to the boundaries and conditions of such a scheme element. Among those questions are:

(a) what medical conditions are covered and what is the selection basis for coverage?

(b) is there any limit on the number of treatment services and/or the duration of such services?

(c) is the level of access to such a non-liability scheme element the same for all persons designated as a Fiskville-affected person or is there differential access according to a grouping criterion/ criteria?

3.4.4 Monetary Payment

The purpose of a monetary payment is, in the words of the report of the federal Royal Commission, "a tangible means of recognising a wrong that a person has suffered".[42] They are not damages in the sense of an award or settlement in the civil justice system for personal injury, the rationale for which is to place the injured party as closely as a monetary payment can do in the position that they would have been had the breach of duty not occurred. However, in a civil action the claimant must establish all the elements of the action (duty, breach, causation and extent of loss) to make such a recovery.[43]

In a redress scheme the monetary payments are ex gratia in nature, being made regardless of any legal liability to make a payment. In the F-111 deseal/reseal (DSRS) program, outlined at Appendix 3, the payment was seen as a tangible form of recognition of poor working conditions experienced by the

[41] Group 1 designation was given to serving members, ex-serving members and civilians who were engaged in F-111 aircraft maintenance activities at RAAF Base Amberley. It included personnel who worked on the four formal DSRS programs as well as those involved in general F-111 aircraft maintenance work, such as pick and patch work. Group 2 was comprised of other possibly affected individuals, including those not directly engaged in F-111 aircraft maintenance activities, but who had been employed at RAAF Base Amberley, or who were the direct family members of Group 1 participants.
[42] *Redress and Civil Litigation*, *op. cit*., p. 219.
[43] Ibid.

DSRS workers and not representing a form of injury or medical compensation. The differential payments ($40,000 for Tier 1 participants and $10,000 for Tier 2 participants) recognised the differences in the harshness of the working conditions between the two Tier groups in terms of the amount of time cumulatively spent inside the F-111 fuel tank compartments. As such it also implicitly recognised the different comparative cancer risks that flowed from the differential levels of hazardous exposure between the two groups.

If some form of monetary – ex-gratia – payment was to form part of a Fiskville redress scheme, decisions would need to be made on a number of matters, including:

(a) what qualifying criterion or criteria (if any) would need to be satisfied as a prerequisite for accessing the monetary payment?

(b) would there be a single level payment for all who meet the prerequisite conditions or payments of different levels?

(c) If the latter, on what basis would such differential access occur?

(d) what would the level or levels for the monetary payment/s be?

3.4.4.1 Effect Upon Land Use and Land Value

While there may be a general monetary payment that represents a tangible recognition of wrongs suffered by Fiskville-affected persons, there may possibly be a special monetary payment that can be accessed by landowners who can demonstrate that they have been adversely affected, and suffered economic loss, as the result of contamination to their land from chemicals or other agents (such as perfluorinated chemicals) discharged from the FTC site. This loss may result from an inability, or reduced ability, to sell crops or stock grown or raised on that land as well as an overall devaluation of their property. There would need to be a mechanism established to affix a value upon the extent of any such economic loss.

(a) Should there be provision for a payment for economic loss for landowners affected by contamination of their land by discharge from the FTC?

(b) What types of loss should be covered by such a payment?

(c) What limits (if any) should be placed on the amount of such payments

(d) What mechanism should be established to establish the extent of any type of economic loss covered by the scheme?

3.5 Structure and Administration of, and Funding for, a Fiskville Redress Scheme

3.5.1 Structural Aspects

One initial question concerns the scope of the proposed Fiskville-affected Persons Redress Scheme. That is, as was canvassed in the introduction to this paper, is the redress scheme initiative intended to be structured as a stand-alone initiative applying only to the legacy of the Fiskville hazardous exposures or, alternatively, is there some possible wider notion that a Fiskville scheme could serve as the nucleus of a more extensive, and more widely based, support and redress scheme, that could encompass other situations of significant occupational and environmental exposure and risk such as the legacy of the Hazelwood mine fire?

The answer to such an initial question could influence the manner in which a Fiskville redress scheme is set up, structured and administered. However, irrespective of the answer to this initial question, any Fiskville scheme would require the defining of those within its coverage and the various rights and entitlements accruing to those covered, including the level, duration and other conditions of such entitlements. As well the nature and mechanism of how the scheme would be funded and the manner in which it would be administered would need to be addressed. Presumably the question of appeal rights in relation to decisions made with respect to entitlements would also need attention. Accordingly, the scheme is almost certainly going to require a statutory foundation.

Should a Fiskville-affected Persons Redress Scheme be a stand-alone structure apply only to the legacy of the Fiskville hazardous exposures or could it be the nucleus of a wider arrangement encompassing other cases of significant occupational and environmental exposure and risk?

3.5.2 Administrative Arrangements

In part, the nature, size and location of the administrative arrangements for a Fiskville redress scheme will be determined by the decision taken on the scope of the scheme canvassed in the previous section. One consideration in relation to the development of administrative arrangements would be whether to create a new administrative unit or whether to engage some existing entity that has the requisite skills and capacity to adequately provide the range of services mandated by the redress scheme.

Among the recommendations of the 2009 report of the federal Joint Standing Committee on Foreign Affairs, Defence and Trade into the adequacy of the health and support needs of RAAF deseal/reseal workers and their families was:

> That the Minister for Veterans Affairs appoint a person with suitable qualifications and background knowledge of the F-111 workers claims to oversee the implementation of these recommendations and to provide expert assistance to DVA in processing claims. The person should be appointed for a minimum of two years and also provide periodic advice to the Minister on progress in handling claims.[44]

[44] Joint Standing Committee on Foreign Affairs, Defence and Trade, *Sealing a just outcome: Report from the Inquiry into RAAF F-111 Deseal/Reseal workers and their families*, Parliament of Australia, June 2009, Recommendation 11.

Such an appointment has been made and that person oversees the operations of the F-111 deseal/ reseal workers care and compensation program, the general details of which are set out in Appendix 3 below, from within the Brisbane office of the Department of Veterans' Affairs.

It is possible that such an approach could be adopted in relation to a Fiskville redress scheme, but this begs the question as to how and where the administrative work in dealing with the various aspects of the scheme would be undertaken. One approach would be to create a new administrative unit solely dedicated to administering the Fiskville redress scheme. The next issue is that as to where should this unit should be located. Should this be within the Department of Justice and Regulation which, under the stream of responsibilities vested in the Minister for Emergency Services, has expertise with respect to the operations of the CFA and MFB? Alternatively, should perceptions of independence suggest that it be located within a different government department?

A separate, dedicated, unit may be a somewhat administratively expensive option. Accordingly, an alternative may be to have the tasks of the redress scheme administered by an entity with claims management and allied expertise. That is, the administrative arrangement may possibly be put out to tender and choice made from the bodies responding to that tender process. However, while this may be (although not necessarily) a less costly administrative option, it may compromise the possibility of building a small, expert, focused operation that may deliver superior service and outcomes for Fiskville-affected persons.

(a) Should the administration of a Fiskville redress scheme be undertaken by a new administrative unit solely dedicated to administering such a scheme or should such administration be undertaken by an existing entity with appropriate claims management and allied expertise?

(b) If there is to be a separate, dedicated, unit, where should such a unit be located?

(c) If the administration is to be tendered out, what conditions should be part of such an outsourced arrangement?

3.5.3 Funding Model

As the FTC was an entity under the control of the CFA, the seemingly most appropriate manner for funding a Fiskville redress scheme would be through this being a charge upon the operations of the CFA.[45] This follows because the harms that have occurred in the case of Fiskville stem primarily from shortcomings in the administration and oversight of the operations of the FTC by the CFA. The analogy would be with the Class II component of the redress scheme under the Japanese Pollution-Related Compensation Law, elements of which are outlined in Appendix 2 below. The Class II arrangements

[45] However, functionally, since the CFA only derives about five per cent of its income through its own endeavours, this cost would ultimately be borne most directly by property owners through the Fire Services Levy and ultimately by the Victorian community generally; http://www.cfa.vic.gov.au/about/funding/; accessed 29 October 2015.

operate to compensate sufferers from Minamata disease, Itai-Itai disease and the effects of chronic arsenic poisoning. Because the particular industrial plants, and the corporations that own and operate them, that are the source of the disease-causing pollution are ascertainable and known, the Japanese Environmental Restoration and Conservation Agency, the regulator of the scheme, levies the offending corporations for the component costs of the Class II arrangements directly attributable to the actions (or inaction) of these corporations.

Yet, while funding of a Fiskville redress scheme solely as a charge upon the CFA, may seem the logical manner of proceeding for the reasons stated above, the investigations by the Fiskville Inquiry and other evidence may suggest a more complex story of responsibility. That is, while there may have been major failings on the part of the CFA, part of the reason why these shortcomings were able to continue for so long was because of lax or absent oversight by relevant government regulatory agencies. Accordingly, there may be a case for joint funding responsibility for a Fiskville redress scheme. Again, the analogy may come from the Japanese Pollution-Related Compensation scheme; this time from the Class I component of that scheme. This is with respect to stipulated respiratory conditions in designated areas of high levels of air pollution, the elements of which are again sketched in Appendix 2 below. The financial underpinnings for the ongoing Class I arrangements operate through a bifurcated funding mix. Eighty per cent of the cost is paid by the emitters of sulphur dioxide and twenty per cent through a tonnage tax on automobiles. If this approach was adopted there would need to be a decision as to the level of funding that would be provided by the CFA and that which would flow from Consolidated Revenue or from contributed by the adjudged at-fault regulatory agencies.

(a) Should the costs of a Fiskville redress scheme be funded solely by the CFA or should there be a shared funding arrangement from the CFA and from Consolidated Revenue?

(b) If the latter, what should be the ratio of contributions from these two sources?

APPENDIX 1

AUSTRALIAN PARTICIPANTS IN BRITISH NUCLEAR TESTS

A.1.1 Background

British nuclear tests in Australia were conducted at Emu Field and Maralinga in South Australia, and at the Monte Bello Islands off the West Australian coast from 1952 to 1957. As well some six hundred minor trials, including the testing of bomb components, were conducted between 1953 and 1963. This testing program involved 8,116 Australian Defence Force personnel (3235 RAN, 3223 RAAF and 1658 Australian Army) as well 8907 civilians.

The Review of Veterans' Entitlements (Clarke Review) in 2003 recommended that the service of Australian participants in the British Nuclear Tests in Australia be declared to be 'non-warlike hazardous service' under the *Veterans' Entitlements Act 1986*. After a number of inquiries and reviews reached different, and sometimes contradictory, results with respect of the health effects of exposure to radiation during the British Nuclear Tests, the Government, in early 2003, commissioned the Department of Public Health at the University of Adelaide to undertake a cancer and mortality study of Australian participants in the British Nuclear Tests in Australia. The findings of this study were released in mid 2006[46]. The study found that the death rate from cancer among the Australian participants in the nuclear test program was 18 percent higher than among the general population and that the incidence of cancer was 23 percent higher than expected. However, no link with radiation exposure and cancer and cancer incidence or mortality was established. This finding was challenged by veterans' groups and others on a variety of grounds.

The Government had stated, in its response to the Clarke report, that it would await the report of the mortality and cancer study before taking action on the issue the Australian participants in the British Nuclear Tests. Notwithstanding the study's lack of association between cancer rates and radiation exposure among this group, the then Minister for Veterans' Affairs (Bruce Billson) announced that the Government would legislate to provide appropriate support for nuclear test participants in relation to cancers contracted by them.

A.1.2 2006 Legislation

Legislation was enacted in 2006[47] to provide a package of measures of health care entitlements and support for eligible Australian participants in the British Nuclear Tests.

Section 7(1) of the *Australian Participants in Nuclear Tests (Treatment) Act 2006* sets out the eligibility criteria for provision with treatment under the Act in terms of a person who is (a) a 'nuclear test participant' and (b) an Australian resident. This entitlement was to non-liability health care treatment for all cancers, irrespective of causation at expense of the Department of Veterans' Affairs when they visit a DVA provider who agrees to treat them under DVA health arrangements.

Pursuant to section 7(2) of the Act, a person was not eligible for treatment under the Act if they were eligible to be provided with treatment under Part V of the *Veterans' Entitlements Act 1986,* under the *Safety, Rehabilitation and Compensation Act 1988* or any other workers' compensation law or under an 1986 administrative scheme relating to British nuclear tests in Australia.

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[46] Australian participants in British nuclear tests in Australia, *Mortality and cancer incidence study*, Repatriation Commission, Department of Veterans' Affairs, Canberra, May 2006

[47] *Australian Participants in Nuclear Tests (Treatment) Act 2006* and *Australian Participants in Nuclear Test (Treatment) (Consequential Amendments and Transitional Provisions) Act 2006*.

Section 5 of the 2006 Act sets out in great detail who was defined to be a 'nuclear test participant' in terms of a person's presence and/or role in the vicinity of one or more three nuclear test sites within prescribed time periods, together with a definition of the boundaries of these nuclear test sites. These definitions are set out in tabular form in Tables 7 and 8 below. In 2008 the legislation was amended to add to those defined to be a 'nuclear test participant' certain police and protective service officers who were present within the Maralinga nuclear test areas between 1 May 1965 and 30 June 1988.[48]

Table 7: Definition of a 'Nuclear Test Participant"

<table>
<tr><th>Role</th><th>Circumstance</th><th colspan="3">Time of Involvement in Particular Test Site Area</th></tr>
<tr><td></td><td></td><td>Monte Bello Islands Area</td><td>Emu Field Area</td><td>Maralinga Area</td></tr>
<tr><td rowspan="4">Member of the Australian Defence Force

Employee of the Commonwealth

Commonwealth contractor providing construction, maintenance or support services relating to the conduct of nuclear tests</td><td>Present in the nuclear test area at the relevant time</td><td rowspan="3">3 October 1952 to 19 June 1958</td><td rowspan="3">15 October 1953 to 25 October 1955</td><td rowspan="3">27 September 1956 to 30 April 1965</td></tr>
<tr><td>Involved in the transport, recovery, maintenance or cleaning of a vessel, vehicle, aircraft or equipment that was contaminated as a result of its use in a nuclear test area</td></tr>
<tr><td>Commonwealth contractor providing construction, maintenance or support services relating to the conduct of nuclear tests</td></tr>
<tr><td>Involved in the transport, recovery, maintenance or cleaning of a vessel, vehicle, aircraft or equipment that was contaminated as a result of its use in a nuclear test area</td><td>3 October 1952 to 19 July 1956</td><td>15 October 1953 to 25 November 1953</td><td>27 September 1956 to 30 May 1963</td></tr>
<tr><td>Police and Protective Service Officers</td><td>Present in the Maralinga nuclear test area at the relevant time</td><td colspan="2"></td><td>1 May 1965 to 30 June 1988</td></tr>
</table>

[48] *Veterans' Affairs Legislation Amendment (International Agreements and Other Measures) Act 2008*, Sch. 2 (items 3, 4).

The definition of "nuclear test participant" also applies to a member of the Australian Defence Force who flew in an RAAF or RAF aircraft that was used in measuring fallout from the nuclear tests and that aircraft was contaminated by the fallout.

Table 8: Definition of Nuclear Test Area

Name of Test Area	Description of Test Area
Monte Bello Islands Area	The area within 10 kilometres of Main Beach on Trimouille Island in the Monte Bello Archipelago
Emu Field Area	The area within 25 kilometres of the Totem test sites at Emu Field.
Maralinga Area	The area within 40 kilometres of any of the Buffalo or Antler test sites.

APPENDIX 2

JAPANESE POLLUTION COMPENSATION ARRANGEMENTS

A.2.1 Background

The most extensive administrative system for providing compensation benefits to the persons contracting diseases resulting from environmental pollution operates in Japan. This is a targeted scheme that operates with respect to a *certified* victim of a *designated* disease who lived in a *designated* area. The scheme was established by the Pollution-Related Health Damage Compensation Law of 1973 (Pollution-Related Compensation Law), which took effect from September 1974. In March 1988 this governing statute was amended resulting in a very significant revision of the scheme.

This system was a response to some of the most profound health consequences of Japan's very rapid process of industrialisation following the Second World War. Apart from conditions related to the high level of air pollution in major industrial centres, there were some, geographically specific, serious concentrations of particular diseases, especially Minamata disease, itai-itai disease and the effects of chronic arsenic poisoing.

A.2.2 Nature of the scheme

Class 1 Component

The Pollution-Related Health Damage Compensation scheme has two geographically-based components. The first concerned respiratory conditions related to high levels of air pollution (the 'Class I' scheme). For both scientific and pragmatic reasons, the level of sulphur dioxide air pollution was chosen as the basic criterion for defining Class 1 compensation areas, ignoring nitrogen oxides, carbon monoxide and particulates. The scientific reason was that, on the then current literature, sulphur dioxide was regarded as the primary cause for certain respiratory ailments. The pragmatic reason was that more was known about this air pollutant than any other and, as its levels could be easily calculated and monitored, that it could provide the basis for creating an easily implementable, robust, compensation scheme, particularly in relation to its funding mechanism.

The geographical selection of Class 1 areas was conducted on the basis of areas where sulphur dioxide air pollution was relatively high and where the incidence of respiratory ailments was above the 'natural' average.[49] From this some 41 areas, totalling 1,313 square kilometres in size, were designated as Class 1 areas. The major concentration, in terms of polluted area, was in metropolitan Tokyo (23 (now 19) districts), Osaka and Nagoya. Almost all the remaining areas involved coastal industrial agglomerations. The location of the Class 1 compensation areas (along with the Class 2 areas) can be seen in Figure 1.

[49] The 'natural' average differs from the 'national' average in that only unpolluted areas were used as the reference point for determining the 'natural' average.

Figure 1: Class 1 and Class 2 Compensation Areas – Japan Pollution-related Compensation Scheme

Source: Japanese Environmental Restoration and Conservation Agency

Additionally, some prefectures and municipalities created supplementary schemes to provide benefits to persons that fell outside the designated areas of the national scheme. Thus the Tokyo Prefecture extended its scheme to the entire area of metropolitan Tokyo,[50] while the city of Kawasaki, in 1973, implemented a supplementary scheme (overwhelmingly financed by local industrial enterprises) that included the construction and management of a special medical centre for pollution disease patients and supplementation of certain benefits, particularly those relating to the cost of living and cost of medical treatment.

The scheme covered the respiratory conditions of chronic bronchitis, bronchial asthma, pulmonary emphysema, asthmatic bronchitis and their complications. Whether or not the applicant for compensation had a history of smoking or not was not considered in terms of certification for compensation on the grounds that this would make the certification process too burdensome, as well as controversial. Applicants who died prior to the completion of certification, as well as persons who had died without applying for certification, could, under certain conditions, be certified as 'pollution victims', thus allowing survivors to claim relevant compensation benefits.

The necessary residence period within a Class 1 area to qualify for certification was one year for bronchial asthma and asthmatic bronchitis, two years for chronic bronchitis, and three years for pulmonary emphysema.

[50] In 1984, when 35,000 people received compensation under the areas of Tokyo designated as Class 1 areas under the national scheme, some 14,000 people were compensated from the budget of the Tokyo Prefecture, at a cost of 400 million Yen.

In November 1983, the Central Council for Environmental Pollution Control was tasked with the role of examining the relationship between air pollution and damage to health. The final report of the Central Council in October 1986 drew attention to the very significant improvement in air quality since the introduction of the scheme (noting a fall in the level of sulphur dioxide emissions of some 72 percent between 1975 and 1987). Consequently it recommended ending the Class 1 component of the scheme and that no further persons be certified under it. However, it recommended that compensation payments to pollution victims already certified under the scheme should continue.

As a trade-off the Council recommended the development of a special 'Health Damage Prevention Program' as a means of making national and local government environmental protection initiatives more effective

Legislation to amend the Pollution-Related Health Damage Compensation Law, largely based on the recommendations of the Central Council's report, passed the Japanese Diet in September 1987 and took effect on 1 March 1988. From that date the Class 1 system designation was cancelled. However, compensation to already certified pollution victims under that designation continued.

Class II Component

While underpinnings for the Class I component of the scheme lay upon a statistical basis of causation, the Class II component rested upon the designation of specific diseases with respect of which there was overwhelming scientific evidence of the relationship between the disease and the substance causing that disease. As set out in Table 9, there were three such designated diseases: Minamata disease, Itai-Itai disease and the effects of chronic arsenic poisoning. It has been open to the government to designate additional diseases for coverage when the strength of the epidemiological link was such to warrant this. However no such additional designation has occurred.

The certification process involves the determination that a claimant suffers from the particular designated disease and had lived in the designated area for the requisite period of time. The certification process also involves a claimant being assigned to one of four ranks according to the severity of their condition with the nature and level of benefit entitlements being linked to the type and severity of the disease suffered.

While generally it appears that the certification process has been relatively swift and unproblematic, there have been some issues in relation to Minamata disease where the diagnostic process can sometimes be complicated and difficult. This is, in large part, the result of Minamata disease not simply displaying recognised 'classic symptoms' but also numerous subsidiary aspects that can complicate a determination of a link with mercury poisoning. Over time there has been a tightening of the examination processes for Minamata disease, leading to a rejection of most claims and, in turn, a very strong response from victims groups. Notwithstanding government action to accelerate certification procedures and increase the numbers of inspection personnel, there has been an ongoing situation of significant claims backlog.

Table 9: Class 2 Diseases

Condition	Details
Minamata disease	Minamata disease was first recognised in 1956. It is a neurological syndrome and was caused by severe mercury poisoning from the release of methylmercury in the industrial wastewater into Minamata Bay from the Chisso Corporation's chemical factory. This highly polluted water bioaccumulated in local sea food that was consumed by the local population. The symptoms of Minamata disease included general muscle weakness, loss of peripheral vision and, in severe cases, paralysis, coma and death. A second outbreak of Minamata disease occurred in Niigata Prefecture Niigata in 1965. Its cause was methylmercury contained in the wastewater release into the Agano River basin from the Showa Electrical Company's plant in Kanose village in Niigata Prefecture. This caused identical symptoms in the local population as had occurred in Minamata and it has been named Niigata Minamata disease.
Itai-Itai disease	Itai-Itai disease (a term coined by locals, literally meaning "it hurts, it hurts") is a disease caused by cadmium poisoning. The disease first appeared around 1912 following significant release of cadmium from the operations of the Kamioka mines in Toyama but was long thought to be either a regional disease or a type of bacterial infection. A link with cadmium was first posited in 1955 and an investigation by Toyama Prefecture in 1961 established that releases from the Kamioka Mining Station to be the cause. This cadmium poisoning results in severe pain in the spine and can also lead to softening of the bones, renal failure and death.
Effects of chronic arsenic poisoning	Chronic arsenic poisoning has been shown to lead to a number of diseases including skin cancer, lung cancer and Bowen's disease. Two major concentrations of chronic arsenic poisoning in Japan have been those resulting from air and water pollution from a refinery at a mine at Toroku in Miyazaki Prefecture (Toroku arsenic disease) and from water run-off from the Sasagadan mine in Shimane Prefecture.

A.2.3 Benefits

Article 3 of the Pollution-Related Compensation Law outlines the seven types of benefits payable certified claimants. These are set out in Table 10.
As well, as a result of the 1988 changes to the Pollution-Related Compensation Law, Article 46 was introduced which provides a range of benefits relating to the Pollution Health and Welfare Program. These have the purpose of restoring, maintaining and improving the health of disease-affected persons. The particular elements of this program are:

- a rehabilitation program;
- a climatotherapy program (ie relocation to a region with a climate more favourable to recovery from, or management of a condition);
- a medical care equipment supply program;
- a home healthcare training program; and
- a subsidy program for influenza inoculation.

Table 10: Scheme Benefit Types

Benefit Type	Details
Medical care benefit	Payment of all medical treatment
Disability benefit	Disability compensation is payable to persons 15 years of age or older according to the severity of the disability
Survivor compensation payment	Benefit payable for a period of about ten years to the dependents of a certified pollution victims who has died of a designated disease.
Lump-sum survivor payment	Benefit payable to specified individuals in cases where there are no direct dependents of a deceased pollution victim.
Child-compensation allowance	Benefit payable to the person raising a child under the age of 15 years who is suffering from a designated disease. The allowance varies according to the severity of the illness.
Medical care allowance	Benefit payable for to costs of travelling to receive medical, hospital or allied treatment
Funeral allowance	Benefit payable in relation to some of funeral expenses for a deceased certified victim a designated disease

A.2.4 Funding

The funding mechanism for the Class I scheme is paid through an 80:20 split between two funding streams. Eighty per cent is paid by the emitters of sulphur dioxide and twenty per cent through a tonnage tax on automobiles. As sulphur dioxide emissions declined, the Government had to continually increase the per-ton levies in order to cover the compensation costs of the scheme. This led to a strong backlash from the business community. One response would have been to widen the funding base by including emitters of nitrogen oxide, which was increasingly being recognised as a disease-causing pollutant, as well as sulphur dioxide. However, the Government chose instead to close the Class I scheme to new entrants in 1988.

For the Class II scheme, the levies to fund the compensation arrangements are collected directly from the companies found responsible for the emissions that have caused the disease.

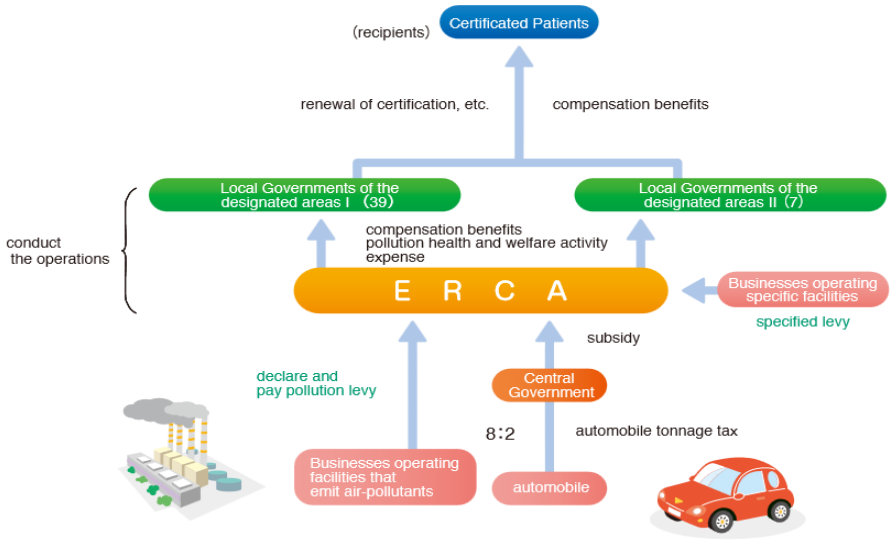
The form and flow of these funding arrangements is set out in Figure 2, below.

A.2.5 Governance Arrangements

The regulator of the scheme when it was established in 1974 was the Pollution-related Health Damage Compensation and Prevention Association (PHDCPA). Its role was to collect the two streams of levy income and to pass this income to the local government authorities, since they administer the compensation benefit arrangements, as well as providing pollution prevention programs. From 1 April 2004 the PHDCPA merged with another special public institute, the Japan Environmental Corporation

(JEC)[51], to form the Japanese Environmental Restoration and Conservation Agency (ERCA). ERCA carries on the functions of both of its predecessor organisations

Figure 2: Funding Arrangements for Japanese Pollution Compensation Scheme



Source: Japanese Environmental Restoration and Conservation Agency

[51] The role of the JEC was to prevent industrial pollution through activities such as creating green spaces and encouraging factory relocation.

APPENDIX 3

F-111 DESEAL/RESEAL CARE AND COMPENSATION PROGRAMME

A.3.1 Background

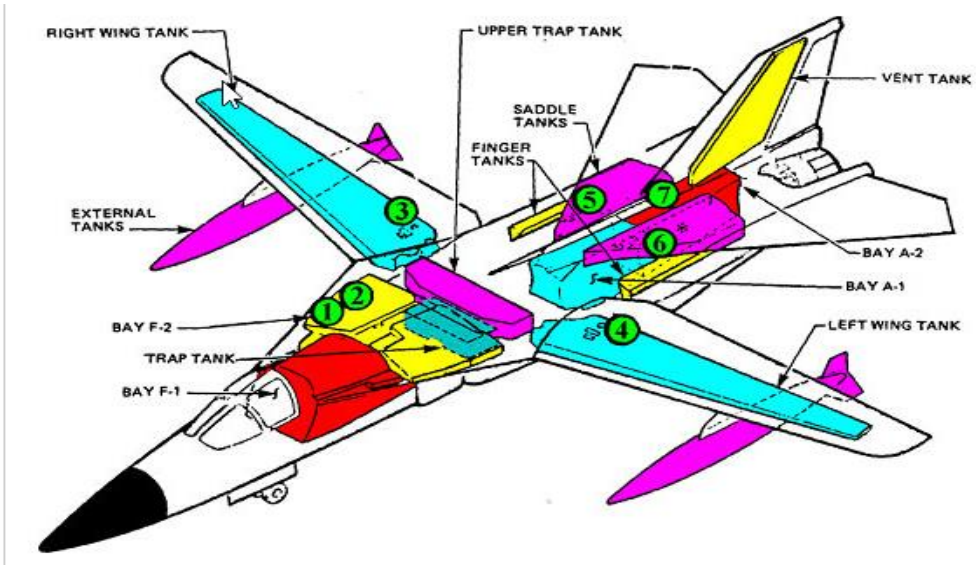
The F-111 aircraft was the primary air strike weapon of the Australian Air Force from the mid-1970s until the early part of this century. One of the defining capabilities of the F-111 was its long range ability, achieved by the fact that it was essentially a 'flying fuel tank' to which armaments and a crew cockpit were attached. This can be seen in the diagram of F-111 fuel tank locations in Figure 3, below. However the F-111's unique fuel storage system meant that it required significant fuel tank repair and maintenance from the time of delivery in 1973 onwards. Because of a deteriorating fuel tank sealant, exacerbated by the fact that the Australian F-111 aircraft had spent five years in storage before delivery, required the RAAF to conduct major fuel leak rectification work from the beginning.

There were two streams to this rectification programme. The first was the four formal deseal/ reseal (DSRS) programmes that were conducted in 1977-1982, 1985-1993, 1991-1993 and 1996-1999. This involved full-time fuel tank maintenance workers, utilising a range of techniques and chemicals, engaged in activities for long periods inside the fuel tanks.

The second was the 'pick and patch' programme of ad hoc maintenance undertaken by personnel as one of a number of functions in keeping aircraft operational. This was not part of the primary tasks of such personnel and involved physical removal of the tank sealant, using dental picks and other objects, and patching the area around the leak. This programme operated between 1973 and 2000.

Concerns about the health effects of these programmes surfaced in late 1999 when some 400 personnel at RAAF Base Amberley reported a range of symptoms and illnesses. A formal investigation was ordered and in 2000 the Chief of Air Force commissioned a Board of Inquiry (BoI) to report on the four formal deseal/ reseal programmes. The Report of the BoI, dated 29 June 2001, made 53 recommendations, all of which were accepted by the Air Force.

Figure 3: Diagram Showing Location of F-111 Fuel Tanks



A.3.2 Responses to the Board of Inquiry

In response to one of the recommendations of the BoI, the Study of Health Outcomes in Aircraft Maintenance Personnel (SHOAMP) was initiated in 2001. This was undertaken by the University of Newcastle and was the first of a number of investigations and studies and reports into various health aspects relating to deseal/ reseal workers and their families. It reported in 2004. Other investigations and studies included:

- Bowling – Mitochondria study
  - In 2004 Professor Frank Bowling was commissioned to conduct a pilot study into the possible effects on the mitochondria of personnel who were exposed to the F-111 DSRS programmes.
- SR51 CHALUS study
  - In 2005 the Chemical Hazard Assessment Laboratory at the University of Sydney was commissioned to report on possible health impacts of exposure to the desealant chemical SR51
- Coxon – psychological effects on spouses study
  - In 2006 Dr Leonie Coxon was tasked with investigating the psychological effects on spouses of DSRS workers
- Mortality and Cancer Incidence studies
  - The Australian Institute of Health and Welfare was commissioned by the Department of Veterans Affairs to investigate mortality and cancer incidence in aircraft maintenance personnel involved in the DSRS programme. This is an ongoing programme of research. The first report was completed in 2003 and follow-up reports in 2004 and 2009. The fourth report is expected to be completed in late 2015 and published by mid-2016.
- Jet Fuel Exposure Syndrome study
  - a wider study, headed by Professor Frank Bowling, into whether changes in cell biology could help explain some of the health effects in former F-111 DSRS workers.

Another response to the BoI report was the establishment, in September 2001, of the Interim Health Care Scheme. This scheme provided interim treatment for F-111 maintenance workers until their claims were determined, together with counselling for workers and their families. This was replaced by the SHOAMP Health Care Scheme in 2005, with participants in the former scheme automatically transferring into the latter. These schemes are considered at greater length later in this case study.

A.3.3 Parliamentary Inquiry and Government Response

In May 2008 the then Minister for Veteran's Affairs, Alan Griffin, referred the matter of the adequacy of the health and support needs of RAAF deseal/reseal workers and their families to the Joint Standing Committee on Foreign Affairs, Defence and Trade for inquiry and report. The Committee's report, *Sealing a just outcome: Report from the Inquiry into RAAF F-111 Deseal/Reseal workers and their families*, was handed down on 25 June 2009. The report included 18 recommendations to Government.

The Government response to this report accepted 14 of the 18 recommendations[52] and committed to the provision of around $55 million, over four years to fund these proposals. One of the recommendations accepted by the Government in an enhanced form resulted in an estimated 2,400 additional workers being able to be considered for access to health care and compensation under the F-111 scheme.

[52] Nine of the recommendations were accepted in full, one partially, two with modifications and two with modifications and enhancements.

A.3.4 Elements of the F-111 Care and Compensation Scheme

A.3.4.1 Introduction

What can be termed the F-111 Care and Compensation Scheme essentially emerged from the Government's response to the Study of Health Outcomes in Aircraft Maintenance Personnel (SHOAMP) undertaken by a research team from the University of Newcastle. Initiated in 2001, in implementing one of the recommendations of the 2000-01 BoI, this study was delivered in the form of a five volume report in 2004.

The SHOAMP study involved a comparative review of the health and well-being of members of the four formal DSRS programs and two companion control groups. The control groups were drawn from personnel at the Amberley and Richmond air bases. The study found a "higher than expected" incidence of cancer among the members of the DSRS programs, an increase of around 40-50% incidence, relative to both the Amberley and Richmond comparison groups. It also found that the DSRS program workers reported nearly twice the number of poor health symptoms than comparison groups, and significantly poorer quality of life on both physical and mental component scores. It stated:

> the results point to an association between F-111 DS/RS involvement and a lower quality of life, greater incidences of: erectile dysfunction, depression, anxiety and subjective memory impairment. There is also evidence, albeit less compelling, of an association between DSRS and dermatitis, obstructive lung disease (ie. bronchitis and emphysema), and neuropsychological deficits.

The Government response to the SHOAMP report took three main forms. The first was to build upon and extend the package of health care arrangements that were previously in place, in the form of the Interim Health Care scheme, through the establishment of the SHOAMP Health Care Scheme, together with the Better Health Program. Secondly, it initiated a system of ex-gratia payments as a form of recognition of the special circumstances of workers in the DSRS programs. Thirdly, it provided an enhanced avenue through which these workers could access existing compensation entitlements. These three elements of the F-111 Care and Compensation Scheme are explored in the following sections.

A.3.4.1 Medical Treatment and Care

A.3.4.1.1 Interim Health Care Scheme

The Interim Health Care Scheme (IHCS) was initiated in September 2001 as non-liability related response to enable workers involved in the DSRS programme to access required treatment and care before the determination of their claim for compensation. That is, it was recognised that the various responses to the recommendations of the Board of Inquiry, particularly the results of the SHOAMP study, would take considerable time to come to fruition or implementation and that there was a need to "provide 'sympathetic advice and treatment' for personnel who were posted to the RAAF Base Amberley and whose 42 health conditions were viewed as being 'reasonably related' to DSRS activities."[53]

A Doctors' Advisory Committee, comprised of doctors from the Departments of Defence and Veteran's Affairs, including members with expertise in Air Force occupational and environmental health, was established and given the task of identifying conditions that could access treatment under the IHCS.

[53] Department of Veteran's Affairs submission to the Joint Standing Committee on Foreign Affairs, Defence and Trade inquiry; cited in *Sealing a just outcome: Report from the Inquiry into RAAF F-111 Deseal/Reseal workers and their families*, pp. 42-43.

This Committee took the view that a generous approach should be adopted with respect to inclusion of conditions given the unknown nature of causation at that stage.[54]

The list of agreed included conditions included:

- Skin rashes and associated systemic conditions;
- Neurological conditions;
- Mental disorder;
- Personality change;
- Neoplasms;
- Haematological conditions;
- Liver disease;
- Gastrointestinal problems;
- Fatigue;
- Coronary heart disease, its precursors and sequelae;
- Chronic infections; and
- Chronic respiratory conditions.

The level of access to the IHCS was determined by the categorisation by the RAAF of a person as being either of Group 1 or Group 2 status. Group 1 designation was given to serving members, ex-serving members and civilians who were engaged in F-111 aircraft maintenance activities at RAAF Base Amberley. It included personnel who worked on the four formal DSRS programs as well as those involved in general F-111 aircraft maintenance work, such as pick and patch work. Group 2 was comprised of other possibly affected individuals, including those not directly engaged in F-111 aircraft maintenance activities, but who had been employed at RAAF Base Amberley, or who were the direct family members of Group 1 participants.

It was a prerequisite for Group 1 participation in the IHCS for the person to have lodged a claim for compensation with either the Department of Veteran's Affairs, Comcare or WorkCover Queensland. The original decision was that access to the IHCS would continue until a participant had exhausted all avenues of appeal for compensation. However, by ministerial decision, such participants could continue to access the IHCS even after compensation eligibility had been denied.

A.3.4.1.2 SHOAMP Health Care Scheme (SHCS)

The SHCS represented an expanded version of the IHCS and all participants in the IHCS were automatically transferred to the SHCS. Anyone wishing to participate in the SHCS, and not registered through this transfer process, had to register by 20 September 2005 and also to have lodged a claim for compensation with either Comcare or the Department of Veteran's Affairs.

The 2008-09 Parliamentary Inquiry criticised the cut-off date for registration for the SHCS and recommended its removal and that all claims rejected because of the 20 September cut-off date be reviewed. This was accepted by the Government in its response to the *Sealing a just outcome* report.

The distinction between Group 1 and Group 2 status was retained but the former group was defined in a more particularised form. Those included in these two groups are set out in Table 11

[54] *Ibid*, p. 43.

Table 11: SHOAMP Health Care Scheme Groups

Group 1	Group 2
Personnel involved in the F-111 Deseal/Reseal training conducted in Sacramento USA	The immediate family members of Group 1 participants
Personnel, including supervisors, involved in the 1st and 2nd Deseal/Reseal Programs 1977-82 and 1991-93; the Spray Seal Program 1996-99 and the Wings Deseal/Reseal Program 1985-92	Service personnel and civilian employees employed on the Base during the F- 111 Deseal/Reseal programs who are not covered by the Group 1 definition
Personnel involved in the regular burning or disposal of Deseal/Reseal products including firefighters, boiler attendants, plant attendants and Department of Construction workers	
Personnel who dismantled and/or disposed of the canvas from the Air Transportable Deseal/Reseal Hangar (the 'Rag Hangar')	
Personnel whose primary place of duty was within the Deseal/Reseal hangars	
Fuel farm workers and personnel involved in the transport, delivery and handling of Deseal/Reseal products including SR51/51A. These workers and personnel must have regularly performed duties of supply and disposal of Deseal/Reseal products and must have had regular contact with contaminated fuel from the defuel process either at RAAF Base Amberley or No.7 Stores Depot	
Personnel immersed in the settling pond at RAAF Base Amberley	
Work Experience students at Hawker de Havilland who worked inside the tanks	

Based on the SHOAMP report there was an extension of the number and range of conditions covered for medical care and treatment. However, also based on the findings of the SHOAMP report, several conditions were removed from the list of treated conditions as they were found not to be associated with involvement in the F-111 aircraft maintenance programs. These conditions include coronary heart disease, chronic respiratory conditions and chronic infections. However, former IHCS participants who had previously received treatment for these conditions continued to receive treatment for them under the new scheme. However, such treatments were not open to new SHCS participants. The conditions covered under SHCS are set out in Table 12.

Under the SHCS, as originally established, access to treatment and care would cease once liability for the individual's condition had been accepted by the relevant compensation authority or once all merit-based avenues of appeal had been exhausted.[55] However, as occurred with the IHCS, this restriction was overturned by Government action; on 14 February 2007 the Government decided that treatment could continue even after the exhaustion of all merit-based avenues of appeal. However it was

[55] That meant the Administrative Appeals Tribunal (Cwth) but not the Federal Court.

stipulated that the continuation of such treatment did not constitute any admission of liability on the part of the Government.

Table 12: Covered Conditions under SHCS

Category	Condition
Skin rashes and associated systemic conditions	Dysplastic naevus Eczema/dermatitis
Neurological conditions	Multiple sclerosis Parkinson's disease Peripheral neuropathy Spinal muscular atrophy Erectile dysfunction Cauda equine syndrome Neurogenic bladder Non-alcoholic toxic encephalopathy Acquired colour vision deficiency
Mental disorders and personality changes	Depression Sleep disorders with neurological basis Bi-polar affective disorder Vertigo Memory loss Anxiety Panic disorders Impaired cognition Alcohol and drug dependence
Malignant neoplasms and myeloproliferative disorders	All
Liver diseases	Liver disease (excluding diabetes) Pancreatic disease
Gastrointestinal problems	Irritable bowel disorder Ulcerative colitis/Crohn's disease Diverticulitis Bowel polyps
Immunological disorders	Mixed connective tissue disease Systemic lupus erythematosus Sarcoidosis

A.3.4.1.3 Better Health Program (BHP)

Another Government response to the SHOAMP Report was to establish a Cancer and Health Screening and Disease Prevention Program for F-111 aircraft maintenance workers. This program is now known as the Better Health Program (BHP). It is a voluntary GP-based program that allows participants, through their own GP, to access:

- Cancer screening – providing early detection for colorectal cancer and melanoma; and
- Health information and disease prevention – involving the promotion of a healthy lifestyle by providing information on health conditions including erectile dysfunction, depression and anxiety.

A.3.4.2 Ex-gratia Payments Scheme

The ex-gratia payments scheme for DSRS workers was announced via a joint media release by the then Ministers for Defence and Veterans' Affairs on 19 August 2005. The media release stated that:

> The package is in response to the Study of Health Outcomes in Aircraft Maintenance Personnel (SHOAMP) and recognises that those people who participated in F-111 Deseal/Reseal work experienced a unique working environment.[56]

The ex-gratia payment was a tangible form of recognition of poor working conditions experienced by DSRS workers and did not represent a form of injury or medical compensation. The lump-sum payments, administered by the Department of Veterans' Affairs, were either of $40,000 or $10,000. To be eligible for the lump-sum payment, a person either had to be a member involved in part of the formal DSRS program or employed on certain other specified tasks. The particular allocation was determined by a process of a three 'tier' classification depending upon the particular role/s undertaken within the DSRS program and the amount of time cumulatively spent inside fuel tank compartments. The $40,000 payment was reserved for Tier 1 participants, while Tier 2 participants received $10,000. Tier 3 participants did not receive an ex-gratia payment, but were granted an enhanced avenue (along with Tier 1 and 2 participants) for workers' compensation claims through a mechanism pursuant to section 7(2).

The 2008-09 Parliamentary Inquiry was very critical of the restriction of ex-gratia payment arrangements to participants in the four formal DSRS programs and the consequent exclusion of a range of others who were also involved in the program. It recommended that:

> "the definition of eligible personnel for the purposes of Tier 2 of the ex-gratia scheme be extended to include personnel posted to one or more of the F-111 maintenance squadrons 1, 6 and 482 who carried out Sealant Rework work during the period 1973 to 2000 and personnel who served in 3AD or 501 WG and who undertook fuel tank entry and Sealant Rework work outside of the formal DSRS program."

In its response to the *Sealing a just outcome* report the Government refused to countenance any extension to the ex-gratia payment scheme, but did agree:

> "to expand the definition for eligibility for Tier 3 status, with access to compensation and health care under ss7(2) of the Safety, Rehabilitation and Compensation Act 1988 (SRCA), to now include all personnel undertaking F-111 fuel tank maintenance involving fuel-tank entry prior to January

[56] Ministers for Defence, Veterans' Affairs: *Lump sum payments announced following health study findings*, media release Friday, 19 August 2005

> 2000, including personnel who worked in F-111 fuel tanks at locations other than RAAF Base Amberley, in addition to those personnel who are already eligible through their work in, or linked to, F-111 deseal/reseal. This definition is more generous than that recommended by the Inquiry."

The Tier classifications relevant for the ex-gratia lump sum payment, and for access to compensation benefits pursuant to section 7(2) of the Safety, Rehabilitation and Compensation Act 1988 (discussed in the following section) are set out in an Appendix to this case study.

Also in response to the Joint Standing Committee report, the Government agreed that the estates of eligible deceased participants in the DSRS program who died prior to 8 September 2001 would now be eligible to apply for ex-gratia payments.

Only one ex-gratia payment was payable regardless of how many times a person may be eligible. Where a claimant was assessed as eligible for both payments, the entitlement was to the higher amount. Item 1.6 of section 51.5 of the Income Tax Assessment Act 1997 provides "an ex-gratia payment from the Commonwealth known as the F-111 Deseal/Reseal Ex-gratia Lump Sum Payment" is tax exempt.

A.3.4.3 Compensation Benefits

The third element of the Government response to the SHOAMP report was to provide specific access to compensation benefits via the more beneficial standard of proof in section 7(2) of the Safety, Rehabilitation and Compensation Act 1988 (SRCA). Section 7(2) SRCA access was provided to all persons accepted into the ex-gratia payment scheme.

With the reversal of the burden of proof in relation to establishing causation, pursuant to section 7(2) SRCA, the claimant's task is that of establishing two requirements:

(a) that they fall within the definition bounds of a Tier 1, 2 or 3 participant in the DSRS program; and
(b) that they have been diagnosed with a recognised DSRS-related (ie SHOAMP validated) condition.

For the purpose of access to compensation via the section 7(2) SRCA route, the recognised DSRS-related conditions are the same as those recognised under the SHCS, and set out in Table 12 above, with the exception that the condition of 'alcohol and drug dependence' under the 'Mental disorders and personality changes' category is not recognised.

Permanent, reserve and ex-serving members of the Australian Defence Force have their compensation entitlements determined under the SRCA if they were injured or became ill as a result of their service between 3 December 1949 and 30 June 2004.

ADDENDUM – BASIS FOR TIER CLASSIFICATION UNDER THE F-111 SCHEME

Tier One

Category	Tier 1 definition (formal deseal/reseal programs only)	Additional Information
Fuselage deseal/reseal or respray programs and 'pick and patch' maintenance	A person who spent at least 30 cumulative working days on the fuselage deseal/reseal or respray programs during the period 1977 – 1982, 1991 – 1993 and 1996 – 2000, whose duties involved working inside F-111 fuel tanks.	Personnel who worked inside body fuel tanks of the F-111 aircraft for extended periods of time for a cumulative period of not less than 30 working days, removing sealant and/or resealing the tanks. This category includes only personnel employed in the formal F-111 deseal/reseal and respray programs over the period 1977 to 1982, 1991 to 1993 and 1996 to 2000. This does not include motor transport drivers employed as fuel tank drivers who may have been responsible for de-fuelling F-111 aircraft prior to deseal/reseal activities being undertaken.
Wing tank program	A person who spent at least 30 cumulative working days on the wing tank program during the period 1985 – 1992.	Personnel employed full time on the formal wing tank program actively removing and replacing sealant for a period of not less than 30 cumulative working days between 1985 and 1992.
Sealant rework (pick and patch)	A person who spent at least 60 cumulative working days carrying out sealant rework (pick and patch) during the period 1973 – 2000 while attached to an F-111 deseal/reseal section	Personnel working on sealant rework (pick and patch) inside fuselage fuel tanks of the F - 111 aircraft for a cumulative period of not less than 60 working days while attached to a deseal/reseal section of 3AD/501WG, over the period 1973 to 2000, plus those six personnel posted to Sacramento who completed training in deseal/reseal procedures.
Boiler and plant attendants	Boiler and plant attendants whose usual place of duty was the Base incinerator as an incinerator operator, and who spent at least 30 cumulative working days undertaking these duties during the period 1976 – 1986.	Boiler and plant attendants regularly disposing of deseal/reseal products by burning, in particular the sealant remover SR51 and SR51A, at the RAAF Base Amberley incinerator, for a cumulative period of not less than 30 working days between 1976 and 1986
Unable to continue in F-111 working environment	A person who can demonstrate that they would have met one of the above criteria except for the fact that they: • had an immediate physical reaction; and • required medical treatment or intervention; and • were given a work restriction or medical fitness advice (PM 101) stating that they should not return to that working environment.	

Tier Two

Category	Tier 2 definition (formal deseal/reseal programs only)	Additional Information
Fuselage deseal/reseal or respray programs and 'pick and patch' maintenance	A person who spent between 10 and 29 cumulative working days on the fuselage deseal/reseal or respray programs during the period 1977 – 1982, 1991 – 1993 and 1996 – 2000, whose duties involved working inside F-111 fuel tanks..	Personnel who worked inside body fuel tanks of the F-111 aircraft for extended periods of time for a cumulative period of between 10 and 29 working days, removing sealant and/or resealing the tanks. This category includes only personnel employed in the formal F-111 deseal/reseal and respray programs over the period 1977 to 1982, 1991 to 1993 and 1996 to 2000. This does not include motor transport drivers employed as fuel tank drivers who may have been responsible for de-fuelling F-111 aircraft prior to deseal/reseal activities being undertaken.
Wing tank program	A person who spent between 10 and 29 cumulative working days on the wing tank program during the period 1985 – 1992.	Personnel employed full time on the formal wing tank program actively removing and replacing sealant for a cumulative period of between 10 and 29 cumulative working days between 1985 and 1992.
Sealant rework (pick and patch)	A person who spent between 10 and 59 cumulative working days carrying out sealant rework (pick and patch) during the period 1973 – 2000 while attached to an F-111 deseal/reseal section. Personnel working on sealant rework (pick and patch) inside fuselage fuel tanks of the F - 111 aircraft for a cumulative period of between 10 and 59 working days while attached to a deseal/reseal section of 3AD/501WG, over the period 1973 to 2000.	Personnel working on sealant rework (pick and patch) inside fuselage fuel tanks of the F - 111 aircraft for a cumulative period of between 10 and 59 working days while attached to a deseal/reseal section of 3AD/501WG, over the period 1973 to 2000.
Boiler and plant attendants	Boiler and plant attendants whose usual place of duty was the Base incinerator as an incinerator operator, and who spent between 10 and 29 cumulative working days undertaking these duties during the period 1976 – 1986.	Boiler and plant attendants regularly disposing of deseal/reseal products by burning, in particular the sealant remover SR51 and SR51A, at the RAAF Base Amberley incinerator, for a cumulative period of between 10 and 29 cumulative working days between 1976 and 1986.
Unable to continue in F-111 working environment	A person who can demonstrate that they would have met one of the above criteria except for the fact that they: • had an immediate physical reaction; and • required medical treatment or intervention; and • were given a work restriction or medical fitness advice (PM 101) stating that they should not return to that working environment.	
Fire fighters	Fire fighters employed as instructors, whose usual place of duty was the Fire Training School fire pits and who spent at least 60 cumulative working days actively involved in the burning of by-products from the F-111 DSRS process during the period 1976 – 1990.	Fire fighters employed as instructors permanently posted to a Unit at RAAF Base Amberley, and who were actively involved in burning bi-products from the F- 111 DS/RS process (including the sealant remover SR51 and SR51A) at the fire pits, for training and/or disposal purposes, for a cumulative period of not less than 60 working days during the period 1976 to 1990.

Rag Hangar personnel	Personnel who were not involved in tank entry and whose usual place of duty was the Rag Hangar for 60 cumulative working days during the period Dec 1977 - Nov 1983.	Personnel are those for whom their normal place of work was the deseal/reseal air transportable ('Rag Hangar') hangar at RAAF Base Amberley, and who provided direct support to those staff entering F-111 fuel tanks for a period of 60 cumulative days. This does not include those personnel who may have regularly visited these hangars in the course of their duty.
Hangar 255, 260, 277 or 278 personnel	Personnel who were not involved in tank entry and whose usual place of duty was Hangar 255, 260, 277 or 278 for a period of 60 cumulative working days during the period 1977 – 1982, 1991 – 1993 and 1996 – 2000.	Personnel indirectly involved in DS/RS, for whom their normal place of work was Hangars 255, 260, 277 and 278, and who provided direct support to those staff entering F-111 fuel tanks for a period of 60 cumulative working days. This does not include those personnel who may have regularly visited these Hangars in the course of their duty

Tier Three

Category	Tier 3 definition	Additional Information
Fuselage deseal/reseal or respray programs and 'pick and patch' maintenance	Personnel who were employed in F-111 fuel tank maintenance, or other maintenance or directly related tasks, prior to January 2000 where their work included physical entry to the fuel tank to conduct that maintenance or task.	Personnel described in this category include those who worked as direct participants in the formal F-111 deseal/reseal programs carrying out deseal and reseal tasks, including training, inside fuel tanks. It also includes personnel who worked inside fuel tanks carrying out ad hoc 'pick and patch' fuel tank maintenance outside those formal programs. This category applies regardless of what location the work occurred (e.g. RAAF Base Amberley, RAAF Base Edinburgh, in the United States or at other locations). This category is phrased broadly. The principal trade groups in this category carrying out maintenance work on the fuel tank itself was the airframe fitter trade (later renamed aircraft technician). Other maintenance tasks were regularly carried out inside F-111 fuel tanks by: • aircraft metal worker trade • surface finisher trade • electrical fitter trade. A number of other trade groups may also have carried out maintenance and other directly related tasks inside F-111 fuel tanks including • non-destructive inspection technicians, • instrument fitters • photographers. The trade groups listed here are not exhaustive and it is possible that personnel from other trade groups carried out work inside F-111 fuel tanks and may be eligible under this definition. The most important factor is the nature of the work performed. This category is not intended to cover personnel who may have entered F- 111 fuel tanks to perform work other than maintenance or other directly related tasks.
Wing tank program	Personnel who were employed on the wing tank program during the period 1985 – 1992.	Includes those who worked as direct participants in the F-111 wing tank deseal/reseal program, known as the third deseal/reseal program. It has been retained as a separate category because in the strictest sense it did not necessarily involve fuel tank 'entry'. It did however involve exposure to deseal/reseal processes.

Sealant rework (pick and patch)	Same definition and conditions as pertains to to the "Fuselage deseal/reseal or respray programs and 'pick and patch' maintenance" category (above)	
Boiler and plant attendants	Boiler and plant attendants whose usual place of duty was the RAAF Base Amberley incinerator as an incinerator operator during the period 1976 – 1986	Boiler and plant attendants described in category 4 were regularly engaged in disposing of deseal/reseal products by burning, in particular the sealant remover SR51 and SR51A, at the RAAF Base Amberley incinerator between 1976 and 1986. This category also includes any Department of Construction workers who undertook these duties during the period.
Fire fighters	Fire fighters whose usual place of duty was a Unit at RAAF Base Amberley and who were actively involved in the burning of by-products from the F-111 deseal/reseal process during the period 1976 – 1994.	Personnel who were actively involved in burning by-products from the F-111 deseal/reseal process (including the sealant remover SR51 and SR51A) at the fire pits for training and/or disposal purposes between 1976 and 1994.
Rag Hangar personnel	Personnel who were not involved in tank entry and whose usual place of duty was the Rag Hangar at RAAF Base Amberley during the period Dec 1977 – Nov 1983.	Personnel are those for whom their normal place of work was the deseal/reseal air transportable ('Rag Hangar') hangar at RAAF Base Amberley, and who provided direct support to those staff entering F-111 fuel tanks. This does not include those personnel who may have regularly visited these hangars in the course of their duty.
Hangar 255, 260, 277 or 278 personnel	Personnel who were not involved in tank entry and whose usual place of duty was Hangar 255, 260, 277 or 278 at RAAF Base Amberley during the period 1977 – 1982, 1991 – 1993 and 1996 – 2000.	Personnel described are those for whom their normal place of work was Hangars 255, 260, 277 and 278 at RAAF Base Amberley and who provided direct support to those staff entering F-111 fuel tanks. This does not include those personnel who may have regularly visited these hangars in the course of their duty.
Motor transport drivers	Motor transport drivers involved in the first deseal/reseal program, at RAAF Base Amberley, who came into contact with aviation fuel contaminated with deseal/reseal byproducts during the period 1977-1982.	Personnel described do not include motor transport drivers employed as fuel tank drivers who may have been responsible for de-fuelling F-111 aircraft prior to deseal/reseal activities being undertaken.
Canvas personnel and/or Rag Hangar dismantling workers	Maintenance personnel on the air transportable ('Rag') Hangar, at RAAF Base Amberley, who were involved in removing/replacing canvas or dismantling the Hangar during 1978, 1980 and 1984.	
Engine Test Cell No 1 personnel	Personnel employed in Engine Test Cell No 1, at RAAF Base Amberley, during the period 1976 – 1986.	
Warrill Creek Settling Pond – barrier maintenance personnel	Personnel who entered the Warrill Creek Settling Pond for the purpose of maintaining the physical barrier during the period 1977– 2000.	Personnel described in this category include any Department of Construction workers who undertook these duties during the period. However, this category does not include Airfield Defence Guards, Ground Defence Officers or other personnel who may have entered Warrill Creek for any other purpose or reason