COMMONWEALTH OF AUSTRALIA

Official Committee Hansard

SENATE

EDUCATION, EMPLOYMENT AND WORKPLACE RELATIONS LEGISLATION COMMITTEE

Safety, Rehabilitation and Compensation Amendment (Fair Protection for Firefighters) Bill 2011

TUESDAY, 9 AUGUST 2011

MELBOURNE

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SENATE

SAFETY, REHABILITATION AND COMPENSATION AMENDMENT (FAIR PROTECTION FOR FIREFIGHTERS) BILL 2011

Tuesday, 9 August 2011

Senators in attendance: Senators Back, Marshall, Thistlethwaite and Wright

Terms of reference for the inquiry:

To inquire into and report on:
Safety, Rehabilitation and Compensation Amendment (Fair Protection for Firefighters) Bill 2011

WITNESSES

FORREST, Mr Alex, Private capacity

Committee met at 9:23

CHAIR (Senator Marshall): I declare open this public hearing of the inquiry into the Safety, Rehabilitation and Compensation Amendment (Fair Protection for Firefighters) Bill 2011 referred to the Senate Education Employment and Workplace Relations Legislation Committee on 5 July 2011 for inquiry and report. The bill seeks to amend provisions of the Safety, Rehabilitation and Compensation Act 1988 so that if Commonwealth firefighters develop certain types of cancer there will be a presumption that their illness is related to their service.

Before the committee starts taking evidence I advise that all witnesses appearing before the committee are protected by parliamentary privilege with respect to their evidence. This gives them special rights and immunities because people must be able to give evidence to committees without prejudice to themselves. Any act which disadvantages a witness as a result of evidence being given before the Senate or any of its committees is treated as a breach of privilege. Witnesses may request that all or part of their evidence is heard in private. However, I also remind witnesses that giving false or misleading evidence to the committee may constitute a contempt of the Senate.

I welcome Mr Alex Forrest and thank him for joining us today as our first witness. I also acknowledge the significant interest that this inquiry has got from the firefighting community and I welcome their presence in the public area today, and other members of the public as well. I also acknowledge that it has attracted significant press interest. We will do all we can to accommodate the needs of the press during the inquiry. Mr Forrest, is there anything you would like to say in relation to the capacity in which you appear here today?

Mr Forrest: I am the Canadian Trustee of the International Association of Firefighters, and I am appearing on my personal behalf today.

CHAIR: We have received your submission; thank you for that. We now invite you to make a presentation to the committee. Following that, the committee will ask you questions.

Mr Forrest: Thank you for giving me the opportunity to speak with you today. It is an honour to speak with you about an issue that is facing firefighters not only in Australia but around the world, and that is occupational cancer and firefighting. This is cancer that firefighters have contracted through their profession of longevity of fighting fires throughout their career. I understand that there are a number of brother and sister firefighters here from Melbourne and the surrounding areas. I thank them all for being here today. Many of them are also cancer survivors. I thank them for taking time out of their lives to come here.

Through continued exposures to carcinogens at fires and training exercises, Australian firefighters are being diagnosed and dying of the occupational cancer. Their ultimate sacrifice is literally being ignored now. These are firefighters who, if they had been fighting fires in Canada or the United States many times, would have been covered for compensation benefits. I am here today to explain to you exactly why Australia needs to be the third country in the world to acknowledge the link between firefighting and occupational cancer.

I am a firefighter. I have been an active officer for 23 years in the Winnipeg Fire Department. I am also the national representative representing over 23,000 firefighters in Canada. I am also a lawyer; I was called to the bar 15 years ago and I am still an active firefighter. One of the things that I have dedicated 15 years of my life to is going around the world explaining why firefighters need to be protected from occupational cancer. The place to start would be politics. In 2002, Canada was no different from what Australia is today. That is just a few years ago. There was not one jurisdiction in Canada, not one firefighter in my province of Manitoba, covered for occupational cancer. In 2002 the province of Manitoba took the very bold step of being the first jurisdiction in Canada to cover five cancers. These were the strongest cancers with a connection to firefighting. I will speak on this in a few minutes with regard to the Guidotti report that came out in Manitoba and British Colombia. The important thing to know here is that this was unanimous in my province. It did not matter whether you were a liberal, a conservative or out of labour. Labour in Canada is the NDP, the National Democratic Party, so if I say NDP it is synonymous with your Labor Party here in Australia. It started in Manitoba with five cancers and within nine years nine jurisdictions in Canada, covering almost 95 per cent of the firefighters, now have presumptive legislation that recognises occupational cancer with the profession of firefighting. In every one of these provinces I have had the honour of being the lobbyist, meeting with the premiers, meeting with the ministers, meeting with politicians. I have been involved with scientific studies throughout Canada for over a decade. I have even had the honour of being part of the drafting process in regards to the legislation, because we wanted to make the legislation as strong as it could be. I believe it really helped to have a firefighter's input in regards to this

legislative drafting. And, with great honour, in almost every province when this legislation was passed, I was there to be able to be one of the spokespersons for firefighters in these provinces.

The important thing to know is this: in politics there are so many battles that go on, but this is an issue that really goes above all that. This is an issue that is non-partisan. This is about protecting firefighters who literally give their lives for the citizens—the citizens of Australia. It does not matter what political stripe you are, it is just the right thing to do. In every single province in Canada, whether the province was led by a Conservative, Liberal, NDP, not one politician has ever voted against this legislation when it has come forward. I would hate to see that when this legislation comes and goes from vote that a politician would be the first to do it in Australia. This is a non-partisan issue that is tremendously supported by the public. The largest petition in the history of my province was a public petition signed supporting the firefighters' rights to have occupational cancer recognised within the Workers' Compensation Act. It was done because it was the right thing to do.

The reason is legislation has been so strong is because it is based in science. Science is everything when we talk about firefighting and cancer risk. I am not going to go over every study—I have given lectures upwards of a week on one cancer within the firefighting community—but the strength of this legislation really is based in science. I hope that each one of you take the time to read through the major studies. We have included about five or six studies that summarise everything: the Guidotti studies and the LeMasters study. The LeMasters study is the 2007 study. The Guidotti studies are from Manitoba and British Columbia. They summarise decades of science and research.

Within the last 15 years I have seen that the studies have become more sophisticated. I think the studies have really reached the height to be able to show that it is conclusive—that cancer is part of the firefighter's life. The LeMasters study in 2007, which is in the kit, was a study of over 32 fire departments around the world. It looked at over 110,000 firefighters. When you look at the LeMasters study and you look at the number of studies you will see that there are two Australian studies included within that. So this really was a worldwide study—from Europe, Canada, the United States, Australia and New Zealand.

To put this in perspective, it is no longer a debate that smoking tobacco is linked to lung cancer. The funny thing—actually, it is not funny at all—is that if you look at the firefighters' connection to cancer, in many times it is a stronger connection than smoking is to lung cancer. Yet there is always the ability for people to look at science and say, 'Well, this particular study was inconclusive.' I will go into this in a few minutes, because I really want to talk about the nature of science and how hard it is sometimes to look at science and scientific studies.

We are asking for seven cancers to be included within this piece of legislation. The five cancers that started in Manitoba are going to be included in this. If you turn to the Guidotti study from Manitoba from 2002. I hope you guys have that.

CHAIR: We have summaries of them. We actually have your submission, but not the actual studies.

Mr Forrest: That is fine. You will have to take my word that I am reading it word for word. The Guidotti study in 2002 was commissioned by the province of Manitoba. The province of Manitoba was very cautious. It was the first jurisdiction to look at legislation, and that is always very hard to do because within the WCB Act, for compensation, firefighting is unique and it is very difficult to incorporate into the established legislation.

To summarise, the 2002 study looked at all the evidence from 1994 to 2002. It looked at every single study done in the history of the world from 1994 to 2002 on cancer, and it made the conclusion that primary-site brain cancer, bladder cancer, kidney cancer, non-Hodgkin's lymphoma and leukaemia are connected to the profession of firefighting and that firefighters have anywhere from two to four times the level of cancer of the general population. That would be sufficient to create a new section of the act that would allow for compensation to be presumed if a firefighter contracted any of those five cancers.

I hope you read that particular study. It is a very well done study. In my report I have included the executive summary, which is very easy to understand. It talks about the scope of the study. It was probably the largest study done prior to the 2007 LeMasters study out of Cincinnati.

We are also asking about testicular cancer. Testicular cancer was not on the radar screen prior to 2002 because prior to 2002—and this is within the Bates study of New Zealand firefighters, which talks about a new, groundbreaking approach—they never looked at death rates for cancer among firefighters because certain cancers have a higher survivability rate than others, one being testicular cancer. They looked at testicular cancer, and what they found put the scientific world on its heels. They found that the level of testicular cancer for New Zealand firefighters—I believe they looked at 4,800 New Zealand firefighters within about three decades—was upwards of five times that of the general population. Not only was it higher than that of the general population, but

testicular cancer is a young man's cancer. It is very rare to have cancer of a testicular nature in your 30s and 40s. We were finding firefighters that were not only having it at a higher rate but were getting it in their 40s and 50s.

When this study came out I read it and said: 'Five times the level—it just cannot be true.' Almost immediately different epidemiologists around the world took on the challenge of discrediting this study out of New Zealand. A gentleman by the name of Jockel out of Germany looked at all firefighters in Germany. What he found surprised him. His study almost exactly replicated the results—the rate of testicular cancer in New Zealand was the same as the rate in Germany. That just shows you the global aspect of this. In 2007, LeMasters looked at 110,000 firefighters and replicated the rate of testicular cancer. So it really does show that this is a global issue. You have three studies—one from New Zealand, one from Germany and one from the United States—all showing the same rate of cancer.

Testicular cancer is a very interesting cancer because it is the first cancer that was identified within an occupation. I am going to tell a quick story just for a few minutes; I hope you allow me to do this. The first person to study occupational cancer was a gentleman by the name of Percivall Pott, in1775. They could not understand in industrial-age England why all the chimney sweeps were dying of testicular cancer. Percivall Pott took tremendous notes, and we have those notes even today. He did not understand why these children, five and six years old, were dying. He knew that these children were coming in covered from head to toe in soot and tar from being chimney sweeps. These chimney sweeps were dying of cancer at a very high level. So Percivall Pott looked at it and made the conclusion that it was the soot. We know today that that soot is called polycyclic aromatic carbons. It is at every single fire today.

Percivall Pott would have the children come in and they would be cleaned up. He knew the cancer was connected to the chimney sweeping; he just did not know what was in the soot. The interesting thing was that these children would be washed up on a Monday, and by Wednesday they would be black again. It was almost as if they were chimney sweeping. It was because it was coming out of their pores. Any firefighter will tell you that, if you fight a fire on Saturday, you get out of the fire and you shower before you go home to get the soot and the tars off your body, when you shower on Wednesday, after not having fought any more fires, the water will be black again.

So basically firefighters are the present-day chimney sweeps, because there is no way they can be protected when they fight fires. You are going to hear from an expert today who is going to explain that firefighting gear here in Melbourne and throughout Australia, just like in the United States and in Canada, is top notch. But it is really for withstanding unbelievable heats of up to 1,000 degrees when fighting fires; the gear has to be able to breathe to be able to release the heat. Since it breathes, that gear is going to absorb the benzenes, absorb the soot, and that is why every single time we fight a fire we are exposing ourselves to this.

There are very few studies on breast cancer. There has been one study out of Cornell University. They did not look at women firefighters, but they looked at the environment that firefighters are in. One thing they found was breast cancer is probably one of the cancers most susceptible to environmental factors, such as benzene. Benzene has been found in almost 98 per cent of the fires we fight. Whether it is a garbage fire, a car fire, a house fire or a business fire, there is benzene. We have not been able to have any studies on women firefighters to see the level of breast cancer. Of the 4,800 firefighters in the New Zealand study, I believe 78 were women. We know there is a connection between breast cancer and firefighting because of the continued exposure to benzene. And we know that women are part of the fire service today, so they should not be penalised in any way for representing such low numbers in the fire service. Quite frankly, it is only within the last few decades that we have seen women firefighters. Prior to that it was a totally male occupation. That is why we have included breast cancer.

You will not find the studies for testicular cancer. You will not find the studies for kidney cancer, bladder cancer et cetera in women firefighters because we just do not have the sufficient sample size to be able to do a statistically significant study. You could probably take all the women firefighters in New Zealand, Australia and Canada and you still would not have the applicable sample size to do a significant study.

Those are the seven cancers that we are putting forward. We believe they are very defensible and that the studies are very strong. We are trying to achieve history; we are trying to make Australia the third country in the world to acknowledge the link between firefighting and cancer.

Within the last 15 years studies have evolved to become more sophisticated. Even within the last two or three years, studies have been able to look at things such as the healthy worker effect. The healthy worker effect is probably one of the biggest factors when dealing with firefighter studies, because when firefighters are getting hired they have to go through unbelievable screening processes. They have to go through medicals. If they have any type of illness, such as cancer, they are screened out. They have to be in the top five to 10 percentile of

physical fitness. And it is even higher for women. To be a firefighter, a woman has to be in the top one to two per cent of the gender. That is how hard it is to become a firefighter.

A study out of Paris really emphasised the healthy worker effect. It said that if firefighters never fought a fire, the mortality and morbidity rates for their particular health group would probably be anywhere from 60 to 70 per cent of that for the general population. We say that there is a doubling of risk for firefighters in the general population, but it is probably closer to a tripling of their personal risk, because of their lifestyle choice.

That is one thing you will read throughout the studies, such as the LeMasters study and the Guidotti study. There is going to be a section on the healthy worker effect, and it is going to tell you that the study is probably conservative in its conclusions and that the rates of cancer are higher than what the study suggests. It is very difficult to weight what exactly the health worker effect is, because every type of fire brigade or fire department differs in the level of physical fitness that has to be achieved, or physical lifestyle. Within my fire department, for 25 years if you were a smoker you were not allowed to be a firefighter. So even 25 years ago we knew that people were coming into a profession with a higher risk of cancer.

There is going to be opposition to the legislation, because I have seen it in every area I have gone in to. The legal premise is that we are going to create a presumptive legislation. It basically gives the benefit of the doubt to the firefighter. It creates a reverse onus. The present system is not sufficient to deal with these claims. Under the current system, when you get injured you have to be able to show where and how you were injured. It is impossible for us to do that. I am not going to go into that, because you are going to get a presentation from legal counsel about what exactly this legal presumption is. It is very important to understand that. I am really thankful for the legal presentation, because it is going to be able to explain just why we need this.

Within the legal presentation you are going to find that the legislation is very conservative. We are not saying that, for every firefighter who has cancer, that cancer is related to firefighting. Safeguards have to be put in place. That is why this legislation is very precise, very specific, very conservative and very narrow in scope. It is in our best interests to create the best legislation possible, because this legislation will be something we are going to be able to use throughout the Australian fire services in education to minimise cancer for firefighters.

One of the things you are going to find is that we are going to be attacked. Usually the attack is not a direct attack. The attacks are based on cost. The attacks are going to come in the form of questions like, 'How can we afford this? How can fire brigades, fire departments or governments handle the costs this will incur?' There are a lot of myths. They say this is going to be tremendously expensive, that it is going to bankrupt communities and that it is going to bankrupt fire departments. I have heard it all. They will not come out directly and say that this legislation should not be put in place because of cost. That would not be supported by the public. The public supports the principle that if a firefighter dies in the course of his duty then the government should support that firefighter, because that is what the public does. They talk about studies. They use the very nature of studies, in that studies in themselves are very conservative because they cannot really make complete conclusions. But they use studies and say that we should delay: 'Don't pass this legislation now. Wait till we have another study. We need a study in Australia, because we are different than they are in North America.' This is utter 'BS'. You are going to hear that studies are inconclusive, when they really are not. They are not any more inconclusive than studies were in the 1970s and 1980s with the tobacco lobbyists.

That was the style of strategy that was attacked for decades in the United States and around the world. Tobacco lobbyists knew there was a connection between smoking and lung cancer. We know that now because people have come out—they have documents and they have individuals saying it. They used science as a way to delay the inevitable. In the 1970s and 1980s it was said: 'We are not sure that tobacco was linked to lung cancer. We have had studies that are inconclusive.' Usually these studies were supported and written by the tobacco companies, because it was cost. They were going to lose business and they were going to be sued in regard to creating a cigarette that was going to be more addictive, purposely, even though they knew it was causing cancer, probably 15 years before the other studies did. So the tobacco style lobbyists for decades avoided the inevitable about cigarette smoking. Thousands and thousands of people died of lung cancer because they did not fully realise that smoking was connected to lung cancer. It was not until about the 1990s that you saw a conclusive link between smoking and lung cancer. That is where we are today with firefighting.

Concerning the true facts on the cost, in Manitoba we have about 3,500 firefighters, which is more firefighters than your act is going to cover. We cover 15 cancers in Manitoba now—we went from five to 15. In a normal year, one to two firefighters out of the group would be diagnosed with these cancers. Ten years ago cancer really was unfortunately a death sentence for many people. But, because of early detection, better chemo and better science, people are living and they are using terms such as 'treatable' and 'cured'. Because of this legislation, in Manitoba we are seeing that we are educating our firefighters better. They are getting early detection. So for many

of the people who are being diagnosed with occupational cancer they are not paying out death payments; they might be 12 to 14 weeks as they are off getting their chemo and then they are back to work. So the cost is really minimal, especially when you calculated what it was before. Just like in Australia, individuals would have to go forward and adjudicate this on a case by case basis. It is literally costing Canadian taxpayers hundreds of thousands of dollars to fight these personal claims.

This legislation does away with that. Instead of giving money to lawyers, why not give it to firefighters who are dying of cancer? Why not give it to firefighters' families who have dependants? So I really want to caution you to be aware of this strategy based on deception about cost study exceptions. Do not become a victim of tobacco style lobbyists. I have seen this in the States and I have seen it in Canada. When you look at the science you know that it is not true.

One of the greatest things about this legislation is that it not only acknowledges a connection between firefighting and occupational cancer but it gives us an educational tool the second this legislation is done. You can see that just from the media we are getting today. We are educating firefighters today, because many firefighters do not fully understand the rates of cancer. When this legislation is passed all across Australia you are going to see fire brigades start to be more proactive in regards to cleanliness of gear, early detection and cancer screening. Doctors are going to see this and it is going to save lives. This legislation will save firefighters' lives.

CHAIR: Could you give me an indication of how long you have remaining on your presentation.

Mr Forrest: How long do I have?

CHAIR: I do not want to cut you short, because I understand that you want to make the case.

Mr Forrest: Another 10 minutes.

Senator BACK: Are we going to run out of time for questions?

CHAIR: No, we will be all right.

Mr Forrest: I will speed it up, I promise. This is probably going to need a new section of the act. That is because firefighting is really different than any other occupation out there. We have no ways to minimise the risk to zero. Firefighters know there are carcinogens that we are going to go into. We know there is danger. We know there is exposure. But we just do not know how much exposure we are getting when we go into a fire. We do not know what is going to be in that house, that business, that car. We have no ability to know before or after what is in that fire. That is what this legislation will do. It will give us the benefit of the doubt.

In conclusion, firefighting is the most studied profession in the world in occupational disease. Fact: you do not need another study to justify this legislation. Fact: fires are no less toxic in Australia than they are in Canada and the United States. Fact: we live in a plastic society, and that is what the problem is. I do not know where Australia gets the bulk of its goods—everything from toys to clothing and such—but it is coming out of China and Third World nations. They are the leading developers of plastics, because it minimises the cost of production. These plastics are carcinogenic. Buildings have gone from having wood based construction 15 years ago to being basically plastic based. Much of the house, much of prefab housing, has become plastic. They have developed new ways of creating better, stronger particle board with less wood, more plastic, more glues. Whole aspects of housing—decks, trusses, prefab sheds—are being constructed with plastic instead of wood. Cars are one of the most dangerous types of fires we can go to. Cars are all plastic, and now they are carbon fibre. Benzene and formaldehyde are chemicals that firefighters have to deal with when they deal with a car fire.

Our gear is basically the best in the world, just like it is in Australia, but it protects us from fires, from radiant heat; it does not protect us from the carcinogens that cause occupational cancer. Fact: there is no difference between what Australian firefighters wear and what we wear in Canada and the United States. Our gear provides little to no protection for our daily dose of carcinogens when we are fighting fires. I recently attended a lecture in which leading epidemiologists were saying that they looked at the firefighting gear, which has basically no way to stop the carcinogens from coming in, because your gear has to breathe. Even though the protective factor of the clothing may have increased two to three times from what it was five years ago, because of the increased use of plastics the toxicity level of fires may have increased 25 times from what it was five years ago.

Australian firefighters have died and will die of occupational cancer. There is a proven link between firefighting and occupational cancer, and firefighters in Australia have been and will be diagnosed and will in the future die of occupational cancer. Firefighters never let the citizens down. It does not matter whether it is the United States, Canada or Australia; we go in when everybody else is running out. We go in when we know we should not. You as elected representatives have a duty to these firefighters not to let them down in their time of greatest need.

Again I want to thank you for the time you have given me here today. It has been an absolute honour and I look forward to when Australia passes this legislation.

CHAIR: Thank you, Mr Forrest. I do acknowledge that you have come from Canada specifically to appear before this inquiry and I thank you for that. I intend to ensure that the committee exhausts all the questions it has for you and we will disregard the timetable because I know you are returning to Canada and we want to make sure we get the full value of your evidence today. Having said that, we ask you to be as concise as possible in your answers. I will start off and simply ask one of the obvious questions first, really as a baseline question. You have touched on it in your submission. What is the difference between the firefighting that you have direct experience with, primarily in Canada, and firefighting in Australia?

Are the natures of the fires different, and are the techniques, strategies and workforce issues different between firefighting services in Canada and Australia?

Mr Forrest: One thing that I did was ask the firefighters from Melbourne about their procedures for everything from incident command and how they attack a fire to when they decide a fire is defensive. The strategies for putting fires out are almost exactly the same as in Canada. If you look at the nature of firefighting, it all has to do with what is burning. We all say the same thing, whether it is Canada or Australia: plastics make things burn with more toxicity and more intensely. Plastics are the greatest challenge that firefighters have to face in Australia, Canada, the United States and Sweden. Plastics are a worldwide phenomenon. I think you are going to have experts later who will be able to point to such products in this room, and if this committee was in a room in Canada, many of the products would be exactly the same.

CHAIR: Is protective equipment comparable?

Mr Forrest: There are basically two standards: ISO standards and NFPA standards. I sit on the board in Canada for Canadian standards, and we use worldwide standards. They are basically the same around the world. When technology is created in one country it goes to all firefighters around the world. We really are in a global society. I happened to notice that the Gore-Tex material in the gear here is from the same company that our gear comes from in Winnipeg, and this is a major component of firefighting gear. So in some ways it is almost exactly the same. There will be little nuances regarding moisture barriers and such, but what the gear lacks is exactly the same: the ability to shut out carcinogens. The main aspect of the gear is to protect you from superheat—radiant heat. To protect you and enable you to operate within a fire at such high levels of heat, the gear has to be able to breathe. That is the same in Canada and Australia. If the gear breathes, it is going to allow carcinogens to come in, because the air that comes in will be filled with carcinogens from plastics.

CHAIR: Is there anything you are aware of in comparing the different techniques and equipment that would lead to a different outcome in terms of exposure to chemicals?

Mr Forrest: Like the difference in strategies in fighting fires?

CHAIR: Is there anything you are aware of that would make a significant difference, or any difference at all, between firefighting in Canada and firefighting in Australia?

Mr Forrest: No, I am afraid not.

CHAIR: I also want to talk to you about the drafting of the legislation. You indicated that you were directly involved in some of the drafting in different provinces in Canada. Can you tell us a little bit about the proposed bill that we are inquiring into today? Is it different and, if it is, why is it different from the appropriate legislation that has been passed in the different provinces?

Mr Forrest: The basis of the legislation is very similar. You have identified cancers. They have to be primary site, which means that the cancer cannot have started in another area of the body and moved to the primary site. It has got to start in that particular area of the body. That is one of the specific elements. Secondly, there has to be a latency period—I believe you call it the active period. There is different wording within your legislation but the meaning is exactly the same. You have to serve for a certain number of years as a firefighter before you are enabled to access the legislation. As well, it is a rebuttable presumption, so that, if there are other factors that come into play, there is the ability to say, 'No, that firefighter did not get that cancer from his job.'

CHAIR: So, in effect, if a firefighter never fought a fire and contracted one of these rare cancers, their application would not remain unchallenged—it would still be rebuttable.

Mr Forrest: Right, and that happens a lot. You analyse the firefighter's career to ensure that he did have the required years. You have to get a doctor's certificate to say that the cancer did start in that particular area that is covered, and then you are allowed to access the legislation.

CHAIR: The purpose of the legislation is purely to address the issue of the connection between firefighting and the cancer?

Mr Forrest: It also acknowledges the fact that it takes x number of years of continued exposure to put you at a dangerous level. For instance, for leukaemia it is five years. Studies show that within five years there is a doubling of risk for blood cancers. It is probably one of the quickest cancers that actually has a doubling of risk, and it makes sense because one of your biggest filters in your body is your blood. Every time you fight a fire you absorb these chemicals. It is not the breathing that is killing us; it is the absorption of these chemicals into our body. That is why you see the kidneys, the bladders, the blood cancers and the lymphomas—and the brain cancers because there is a tremendous amount of blood flow within the brain. That is why you see these cancers at the highest levels. Over the years it is harder for the body to keep its immunity level to cancer, and it allows for cancer cells to build. There are studies out there that say that by the time you are 40 years old you have 50 per cent of your immunity to fight off disease and such that you had when you were 20 years old. From 40 years of age to 50 years of age it drops by another 50 per cent. That is when we are seeing firefighters get cancers, in their mid-40s and early 50s. These are cancers that are many times diagnosed older in life. So firefighters get not only a higher level of cancer than the rest of the population but also the cancer much earlier in life. So they give up quantity of life and they give up quality of life. So that is what this legislation does; it acknowledges the connection with those two issues in mind.

CHAIR: One of the things you indicate in your evidence is that critics of the legislation in Canada argued that introduction of such legislation would be too costly and ineffective. The legislation has now been in place in some provinces for a significant period of time. What is the experience in Canada?

Mr Forrest: It is really amazing. In every jurisdiction that it has been into, issues of cost have been raised. But I do not know one jurisdiction in Canada where there has been a compensation premium system or where more money had to be put into the system to support this. It really has been cost neutral in many ways. Given the fact that cancer is now being detected earlier, it is not the death payments that you are paying out; many times it is basically just lost time and medical drugs, et cetera. So the cost is a fraction of what opponents said it was going to be. And in no place has it hurt any municipal government. In no place has it hurt any compensation premium system. So the cost has really been a nonissue.

CHAIR: Have any of the provinces done a post-legislation review of the legislation to look at some of those issues? Have they looked back after some years and seen the actual consequences of what you have done?

Mr Forrest: We had the legislation in Manitoba in 2002, and they did a secondary study to see whether the study results bore out, and they did. The studies are in the submission—in 2002 and 2005. But it does not address the cost. The cost is something that is very complicated. People had come forward with all types of cancers. We had to educate. Manitoba was the first. So we are getting the idea that it is going to be one to two firefighters a year who are going to come forward out of our province and who are going to be covered under this legislation.

CHAIR: And what size fire department do you have?

Mr Forrest: There are about 1,500 full-time professional firefighters and about 2,000 volunteers.

CHAIR: So you are looking at one to two firefighters per year who are able to take advantage of such legislation?

Mr Forrest: Right.

Senator BACK: Thank you very much, Mr Forrest, for travelling to Australia and for the quality of your presentation to us. It seems to me that this is an important issue. With the concurrence of fire services in Canada it would appear that this is information we could ask you to take on notice to provide to us, or we could ask you to provide to the secretariat the details of senior administrators in some of these fire services. Over a 10-year period we know what the costs of life insurance and other forms of workers compensation are across the population. The senior administrators would know what the insurance premiums were per capita in 2002 for the firefighters. If we could get a figure on what the workers compensation insurance was per person, particularly for those involved in active duty—those who are likely to be at risk in the area you have spoken—and we know between 2002 and 2011 what the percentage increase has been in the wider population, it would give this committee some understanding of the comparative increase for active firefighters in those services over that time. I would not have thought that would be difficult information to collate, and I know the secretary would be only too pleased to make these requests. Is it possible that you could provide that information from two or three of the fire services?

Mr Forrest: It should not be a problem—this legislation has been supported by the fire chiefs. We could get the information from the fire chief administrators of some of the larger departments, which would have the best staff.

Senator BACK: What is also of interest to me, particularly, is the figure you have just given to the chairman of 1,500 full-time and 2,000 volunteers. That again would be reflective of some of the fire services here in Australia. That is where I think Canadian figures might be of even more interest to us than perhaps those of other countries. It would be very interesting if you could give the names of four or five regional fire service chiefs that we could make contact with.

Mr Forrest: The one thing that you have to caution about is that it is still a relatively new issue, even in Manitoba. Manitoba was the first, in 2002, but the majority of provinces have come on board only in the last four or five years. We would have to see if the data is available and such, but I believe there are chiefs in Canada who would be able to give an idea about what the figures were before and after. I think that is what you are looking for—a snapshot of the costs.

Senator BACK: That is exactly right. Information about the percentage changes over those periods of time, whether four years or 10 years, for the wider community and for workers compensation, would be widely available within the insurance industry. In fact, if we know the classification of firefighters we could find an equivalent classification outside the fire services—it might be from the mining industry or it could be fuel drivers, there will be equivalents. We could get quite accurate figures for the change in premium prices per capita for that equivalent group who are not firefighters over that time and we should be able to get the figures for firefighters. It would be of tremendous interest to this committee for our report and whatever recommendations we might make to the Senate. If you could do that, you would be helping us enormously.

Mr Forrest: Okay.

Senator BACK: Regarding some of these cancers: I will look more closely at the reports, but I relate very easily to your comments about cancers in organ systems associated with filtration, that is perfectly logical. Breast cancer and testicular cancer are two that I would want to have a close look at and I will look at that data. But there are of course environmental impacts on, let's say testicular and breast cancer, as indeed there are genetic impacts. So those are matters that do need to be examined. Attendant on this legislation coming in in Manitoba, which you can speak of with greatest authority, has there been a change in the processes or procedures when people apply to join the fire services. There are two things I specifically want to know about—firstly, the taking of medical and family histories and, indeed, environmental histories. Secondly, has there been a change in the type of medical testing that is undertaken? I ask because we all know very well that the absolute best form of risk mitigation is to prevent it in the first place. So, in the event that there were tests that could, for example, identify a man as having a higher likelihood of testicular cancer based on family history or other circumstances, or a woman as having a higher likelihood of breast cancer, again based on family history and other circumstances known to the medical profession, you would think that, armed with that knowledge, with the candidate in front of you, you might well engage with that person and say, 'Look, you fit into a higher risk category, therefore we would be wise to counsel you,' regardless of other levels of physical fitness or whatever. My question is: subsequent to the introduction of this presumptive legislation, has a more rigorous medical and family history appraisal of candidates been conducted?

Mr Forrest: The one thing that we have done within our department is that you have to take a rigorous medical—there are rigorous physicals.

In regards to genetic predisposition, that is a very tough thing, because you could have a family that has an unbelievable genetic predisposition but you might be the one family member that never gets that cancer. Do you have a right? I do not know what the Constitution is like in Australia, but in Canada you would not be able to deny that person, I believe, simply because they had one brother who died of a particular cancer. It would be very difficult to deny them. You have the information in front of you for physical fitness, you try and do what you can to get the best candidates going, but genetic predisposition could be a very difficult issue. I do not know any department in Canada that would look at a person's family history and even consider denying him access simply because, even though he could be in the best shape in the world, he had two family members who had a particular cancer. I do not think there is one department in Canada that would do that.

Senator BACK: Let me ask you a question unrelated to this legislation. What if there was a background of cardiac issues in a family? Say, a person comes before a panel, is subjected to medical examination, has known family instances of heart problems, but at the time they undertake the exam they are physically fit et cetera. Is the decision as to whether or not the applicant proceeds towards joining that service the decision of the applicant? Wouldn't the medical history, which the applicant knows, be taken into account?

Mr Forrest: We do take that into account. If there is a history of heart injury or heart disease in your family, there are better tests that you can do. You can do tests for stress, size of heart et cetera. So they do have the ability to say, 'You have a family history of heart problems; we will do all the tests possible.' But, if they pass those

tests—if they pass everything else—it is very difficult to deny that person access into the fire department simply because they have lots of relatives who died of heart injury.

Senator BACK: Might they, though, be allocated tasks away from the highest risks—positive pressure ventilation et cetera? Might they be directed in their career into areas in which they are likely to be at less risk of a cardiac event?

Mr Forrest: Well, when you are a firefighter, you are a firefighter. You have to be prepared to do all the types of work.

Senator BACK: We all know that there are different levels of training and that, until a person passes those various certificates, they are not in fact placed in different circumstances. So we know that from a training point of view. I am asking you, as I will ask those in Australia as well, of course: are you telling me that, in those circumstances, that person will be with all the others in terms of the training they can do and the work they can be tasked to perform?

Mr Forrest: Right. In Canada, yes.

Senator BACK: You have no doubt had an opportunity to chat with your associates here. Is your incident control system similar to that used widely by emergency services here in Australia?

Mr Forrest: Incident control as in quality?

Senator BACK: No, as in the actual management of an incident.

Mr Forrest: Yes, the management of an incident commands the same accountability—

Senator BACK: ICS pretty well has that in common.

Mr Forrest: It is pretty much in common. They even use the same terms et cetera.

Senator BACK: I understood that to be the case; I just wanted to make sure. There is a planning role within ICS. I just want to get to a comment you made, and I also read it in your submission. It goes to the capacity of the organisation and almost the duty of care of the organisation to record and store data on incidents that an individual firefighter is in. My association in ICS was not in this very high-risk building incidents but it was in bush and vehicle activities. Would it be the case that, particularly since ICS came in, there would be fairly good data on each firefighter along the lines of incidents they have been to, the nature of them and what sort of equipment they would have been wearing? In the wash-up of incidents there would be, I would hope, information such as the length of time, for example, that they would have been actually at the highest risk areas. Is that the case? Is that data collected and available for scrutiny?

Mr Forrest: That data has been collected probably in the last three or five years because a computer processes—

Senator BACK: It allows it.

Mr Forrest: Firefighters that started four years ago are going to be able to know 30 years from now every single fire that they were in. They will be able to know the addresses et cetera. It is really a newer phenomena. It does not go into the detail that you suggest, as in length of time on scene and stuff like that. It just says, 'This particular fire was fought for X number of hours and this firefighter was at that fire.'

Senator BACK: So it would not record, for example, if they were using breathing apparatuses? It would not record that they were actually in the high-risk area of, let us say, that building?

Mr Forrest: Not if it was in the general operating guidelines of how they did it. They just would assume that they would have been wearing it.

Senator BACK: Attendant on these advances that you are talking about, I would have thought that an ICS system which has certainly got the capability of picking up this information—the simple fact that you tag on and tag off—

Mr Forrest: That is a lot of information you are asking—

Senator BACK: That is right, but with today's technology, such as RF tags where you can track people in buildings, it should be possible to electronically and automatically collate that information and have it there in later years. I am now talking about the capacity of the person to be able to ensure that their case can be well put. That is the objective. It just seems to me that with the modern technologies out there now if we do need to be collating this information and storing it over time we should be doing it.

Mr Forrest: I agree. That is one thing that we moved to very quickly in Canada. At the very least you want to be able to access information on every single fire that firefighter was at throughout his career.

Senator BACK: Yes, and the level of risk to which they were exposed.

Senator THISTLETHWAITE: I have a couple of questions, Mr Forrest. I think you described it as the 'latent period'. I understand in the proposed legislation here it will be described as a 'qualifying period'.

Mr Forrest: Yes.

Senator THISTLETHWAITE: Are the qualifying periods listed in the brief that we have received consistent with the qualifying periods in Canada and the United States in that existing legislation?

Mr Forrest: Within Canada, yes. I am a little less informed on the United States, but it is relatively the same.

Senator THISTLETHWAITE: And are they all the same throughout all of the provinces in Canada?

Mr Forrest: Yes.

Senator THISTLETHWAITE: Do firefighters feel that those qualifying periods are fair and reasonable?

Mr Forrest: Yes. We see the usual cancers come up in those areas. There are exceptions to that but the majority—95 per cent of our diagnosed cancers—fall within that latency period. So, again, it gives consistency and it gives credibility to the legislation.

Senator THISTLETHWAITE: In the conclusion to your submission, and you pointed this out in your verbal submission, you said that over recent years the level of toxicity in fires has gone up 20 times. That is a pretty powerful statistic.

Mr Forrest: It is.

Senator THISTLETHWAITE: Do you have a study that you can provide to the committee to back that?

Mr Forrest: You could read the Mount Sinai study that you have in there. It talks about there being 70,000 plastics in 1995. There are over seven million combinations of commonly used plastics in a building. The individuals extrapolate what it is. In the United States—and here it is no different than in the United States—there is somewhere around 1,000 new plastics that are coming on the market. You just extrapolate that. When you have greater combinations, you have a greater toxicity level. That is where you come to the understanding of that, because of the increased numbers.

Senator THISTLETHWAITE: Prevention is obviously the best cure. Is your organisation doing anything to lobby for some standards to be developed for non-carcinogenic plastic production? Is that possible?

Mr Forrest: Plastic production and plastic use is really beyond the scope of a firefighters union to be able to stop. That is a worldwide phenomenon. I do not think the Australian government would be able to stop that puppy.

Senator THISTLETHWAITE: Thank you. Thank you, Chair.

Senator WRIGHT: Thank you, Mr Forrest, for making the effort to come over to Australia to tell us about your views. From your experience, what is the effect this legislation has had on the firefighting community and their families, I suppose particularly in your province?

Mr Forrest: Firefighters always knew anecdotally that cancer was part of the firefighting career. If you were a firefighter for 10 years, you knew people you started with that had died of cancer. I am usually one of the first people firefighters call when they get diagnosed with cancer, especially if it is terminal. When they first come to me, they are not concerned about themselves; they are concerned about their families. They are concerned about what is going to happen if they die of the cancer. So what happens is that instead of them concentrating on getting better, instead of concentrating on their treatments, the stress is actually inhibiting their ability to get better, because now they are going to have to enter into a fight. Before this legislation, it was a battle. It was a tremendous battle and firefighters lost. Throughout their last few weeks or few months they were not concerned about themselves; they were concerned because now their families were going to be thrown into financial destitution. It really is something that has raised the morale of the fire service. When a firefighter now gets diagnosed with cancer, I believe it really helps them to be able to get better from the cancer, because it is stress knowing that your family is maybe in financial problems when you die.

Senator WRIGHT: In your experience, have you known firefighters who have decided, because of the difficulty of fighting and proving causation, I guess, even if they are advised that they may have a claim, to just not go ahead with making a legal claim in that way?

Mr Forrest: Prior to this legislation probably 90 per cent of the firefighters, when they went forward and they wanted to get covered, and we told them the little chance they would have, or the city or this compensation board would say, 'You have got to tell us this, this and this,' they knew it was impossible and they gave up. They would

give up that fight and concentrate on trying to get better. After all these years of fighting fires and the go to asked for help and get denied. It was really a traumatic event for many of the firefighters.

CHAIR: I would like to explore that a little further. Are you saying that the real problem up until this sort of legislation is that they actually have to point a point time and the actual point in time of a cause of a cancer as really a single event in order to qualify for compensation under the existing schemes?

Mr Forrest: That is right. The schemes in Canada were the same as they are in Australia today. You have to point to exactly where you got injured, where you were diagnosed, and that is impossible. We do not know what fire started the cancer, because it was over time. So it makes it impossible. The firefighters are told, 'You have to tell us when you got the cancer,' to which their response is: 'I don't know when I got the cancer. I don't know what fire was the straw that broke the camel's back.' It is a very frustrating thing. When they come to us and say, 'Can you help us on this?' we have to say, 'No, we can't; there's just no way we can prove this.' It is a very deflating thing for firefighters and it hurts the morale of a fire department.

Senator WRIGHT: The legislation gradually expanded across Canada after starting in Manitoba. You said there was resistance to the legislation. Did you notice the resistance decline as it expanded through the other provinces?

Mr Forrest: It was amazing. We started this about 15 years ago and no province would touch it. They did not want to be the first province because there was so much gloom and doom. After Manitoba became the first province, we had other provinces coming to us and saying, 'We want to copy this legislation; can you come in and make a presentation to us?' So it just took that first step, because it is common sense. Governments and municipalities at the time were passing legislation to ban smoking in restaurants and public places. The toxicity level of second-hand smoke is no comparison to that of benzene and what we face. It was actually a good time frame in Canada because the public got it, so the politicians got it. But the opposition was there largely because of cost. Manitoba was covered. It took us six or seven years to get Manitoba to be the first, and then, within six weeks, the next province passed it.

Senator WRIGHT: You were asked by the chair earlier a question about the presumption that, over a certain period of service, certain cancers are going to have been caused by exposure to the toxins and so on being a rebuttable presumption. The question was about a situation—perhaps unlikely, but possible—in which a person who has been in the fire service has been exposed to no, or very few, fires. I want to clarify whether the effect of a rebuttable presumption would then be that it would be up to the defendant—the employer, insurance company or whoever—to use that information to rebut the presumption, to say that there had been the qualifying period and there had been the service and so on, but, given this person's particular work history—

Mr Forrest: He never met the qualifications

Senator WRIGHT: Yes.

Mr Forrest: That is exactly right. The onus is not on the employee to prove that he got the cancer; it is on the organisation or the compensation scheme to say that he never got it from his job.

Senator WRIGHT: But it is open to them to get that information and raise that.

Mr Forrest: Yes, and they do that all the time in Canada, and they are successful on that in many claims.

Senator WRIGHT: With the recent advances that we have heard about—and we have not heard a lot about the personal protective equipment yet—in both clothing and breathing apparatus, can you envisage a time in the future when this legislation might not be needed?

Mr Forrest: I wish I could say yes but I do not see it. Nothing has been invented yet that is able to protect us from fire and make a self-encapsulating suit because of the danger of heat build-up and stuff. Nothing has been invented; I do not know of anything. That is why this legislation is so urgent—I guarantee you are going to see more firefighters, including, unfortunately, Australian firefighters, die of occupational cancer before the solution is found.

CHAIR: Mr Forrest, some of the overseas jurisdictions—and, I understand, particularly in the US—have imposed a time limit on post-employment eligibility. Do you have a view on that?

Mr Forrest: That is part of the rebuttable section in many jurisdictions. If a person has been removed from a fire service for two or three years, that is usually sufficient to keep them under the presumption. If they have been removed from the fire service for 30 years and then get cancer, they usually do not get covered because of the rebuttable presumption. So it really goes to the level of rebuttable presumption about what is an appropriate length of time after ceasing being a firefighter that you can still be covered under the legislation. Generally speaking, in Canada it is automatic that for five to 10 years you are covered. After 10 years it starts getting into

blurry areas, and firefighters are usually not covered. Some jurisdictions have dealt with it by minimising the compensation payouts after a certain number of years. So it is still acknowledged but the compensation is minimal after five or 10 years.

CHAIR: Are there standard medically accepted latency periods for the development of the cancers listed in the bill?

Mr Forrest: Yes.

CHAIR: It occurs to me that we know certain cancers have latency periods of up to 30 years. If that was the latency period for one of the particular cancers then logic dictates that after last exposure you should be covered for that latency period.

Mr Forrest: There are provinces that use that—whatever the latency period is. For instance, if it is 15 years it would be 15 years after that they would be covered. So that is a logical argument that has been put forward by some of the provinces.

CHAIR: What does the bill before us propose in this respect?

Mr Forrest: The bill is really silent. It goes to the rebuttable section, and just like any new legislation that gets passed it is usually going to go to the court in some way for deciphering what the legislative intent was. What is going to be good for Australia is that you are going to have jurisprudence from Canada and the United States with regard to how to deal with those questions that you are bringing up today.

CHAIR: I understand from your submission that you are also involved in the introduction of similar legislation in Europe, particularly in Sweden and Finland. Can you tell us about the process? Where are they at? What are the processes they are going through in considering this legislation?

Mr Forrest: There has been tremendous movement from various political elements, especially in the Scandinavian countries of Sweden and Finland. They are moving forward and trying to put the legislation forward. It is more complicated and more convoluted because in the European Union as soon as one country gets legislation then, after a period of two years, I believe, every country will have that same legislation. So it is going through the process now, and it is a long process. We have not had any opposition from any country in Europe to this date. As a matter of fact, the Swedish firefighters have put forward policies already about occupational cancer. The politicians are moving this forward through the European Union. The firefighters in Sweden have won a European Union safety award for this process that they have now instigated. But it may be a few months or even a year until the legislation in Sweden or Finland comes to fruition.

Senator THISTLETHWAITE: We have discussed the issue of carcinogens in plastics. I am assuming this legislation will also apply to firefighters who predominantly fight timber based fires—rural fire brigades and such. Is there any difference in the fighting of those fires that we should be conscious of that would affect the coverage of this proposed legislation?

Mr Forrest: I do not know exactly how wild land firefighting in Australia works. In Canada wild land firefighting deals with broad based fires but they are also protecting homes a lot of the time. So it is a very difficult question. Generally speaking, smoke is smoke. Smoke from wood gives off carbon dioxide and other chemicals et cetera.

CHAIR: Thank you, Mr Forrest. There are no more questions from the committee. Is there anything that you would like to leave the committee with? I give you this opportunity, given that you are returning to Canada shortly.

Mr Forrest: Do you guys want more stuff to read?

CHAIR: No, it is just if there is anything you think that has not been covered.

Mr Forrest: We have done this so many times in the United States, Canada and Europe. The stuff that we gave you is going to be more than sufficient, we believe, to be able to convince you of the need for the legislation. I will take the senators' requests and attempt to get that information from the provinces to help you make your decision.

Senator BACK: If we were to have that sort of data, we could also then match it to the very information that you put to us, and that is that claims are settled more quickly and diagnoses are made much earlier and therefore, from a public health point of view, much more cheaply and, from the family and the individual's point of view, with much better medical outcomes. We could then start to match that sort of information up. That would then prove or disprove things, but at least it would give us all the information. It may, further, not only be cost neutral; it may be demonstrated to actually be cost beneficial, as so many other circumstances are where you are able to get on top of what are going to become long-term and very expensive treatment costs. And, as you quite rightly

say, it may take some of the very expensive and protracted legal costs out, apart from the grief to the family. So it really is critically important for us to get a handle on this and to be able to work with that data.

Mr Forrest: We are going to work to get that information. The one caveat is that we have very strict privacy laws in Canada, and, when you are dealing with medical issues such as cancers, and very low numbers of some of these cancers, they say that, by giving data out, people can be identified, so they do not give that data out. We will do what we can and provide general issues as much we can do without negating our privacy laws.

CHAIR: In informal discussions with some colleagues, it was put to me that many occupational groups may claim that they have unique hazards and unique circumstances. This sort of legislation would then flow across the board to anybody that claims that they may be in a unique situation. What has been the experience in this regard in Canada?

Mr Forrest: One of the opposition groups has been other labour groups saying, 'Why are firefighters being treated differently than other labour groups?' Once they understand the amount of scientific literature there is on firefighting, they know they have to get literature themselves. You have to have science—problem No. 1. Many occupations have not put the investment into this. It has not been studied. Secondly, many other occupations are different because they can control their danger 100 per cent. They can go into a controlled environment. They can wear encapsulating suits if they have to. We cannot because we fight fires. They know the environment they are entering into. We do not. So it really is tough to make that leap from one profession to another, because you can in many of these occupations minimise the risk to zero.

CHAIR: Thank you very much for your presentation to this committee—

Mr Forrest: Just one thing: no other labour organisations in Canada have ever been able to achieve the presumptive legislation. This has only been for firefighters.

CHAIR: Again, thank you, Mr Forrest, for your submission and your presentation to the committee today. It is much appreciated.

Proceedings suspended from 10:43 to 10:53

FARRELL, Mr Mick, National President and Aviation Branch Secretary, United Firefighters Union of Australia

MARSHALL, Mr Peter, National Secretary, United Firefighters Union of Australia

WATSON, Ms Joanne, National Industrial Officer, United Firefighters Union of Australia

CHAIR: I welcome representatives of the United Firefighters Union of Australia and thank them for their submission to this inquiry and for appearing before the committee today. Mr Marshall, I commend you on your surname; it is very apt and appropriate. I have no declaration of interest; I do not believe we are related. We now invite you to make a presentation to the committee to be followed by questions.

Mr Marshall: Thank you very much for the time for the inquiry that the senators have put in. By way of background, we note that this inquiry is in particular very significant to firefighters in Australia, as it is and should be to the public. We thank our decision makers for taking the time to inquire into this issue. You will hear in our analysis of the submissions that there are 10 firefighters who have had cancer related illness, one from a widow and two from their children. There is no employer opposition; we note that. We ask the Senate to note that there is no employer opposition.

We would like to place on record that firefighting as a profession was the second most trusted profession in Australia in a survey in 2010. It is a very dangerous occupation. We do not need to state that for any accolades; however, it is an extreme, uncontrolled environment we go into, whereas most working environments are controlled.

There are a number of amendments I need to make to our statement. I would take the committee to paragraph 4.8 of the submission. It says:

Therefore, the ability for a firefighter to successfully succeed with a claim for cancer-related illness under the current workers compensation scheme as an occupational disease is highly unlikely if not impossible for the above reasons.

I would like to delete for the record 'highly unlikely'. We submit it is impossible under the current scheme.

Also we note that there was a submission from DEEWR. I think I have correctly articulated that submission. It picked up some information and we believe we should bring to the Senate's attention that, on our inquiries, it is incorrect information. They refer to the Australasian Fire and Emergency Service Authorities Council, which is the peak body of fire services in Australia, where they make reference to many of the international studies having been of small quantity and not conclusive. We sought clarification on that particular matter. I will hand up to the committee a letter from AFAC to DEEWR that corrects that. May I read the correction into *Hansard*?

CHAIR: It is not actually appropriate for you to correct their submission, but we are very happy to accept a supplementary submission from you going to their submission. It is just a small point but one that needs to be made.

Mr Marshall: Absolutely. I accept that point. In relation to the AFAC correspondence, let us go to the second page. It makes reference to what is in part the DEEWR submission. It says:

According to AFAC, the cohort study could include prospectively collected exposure information from the Australian Incident Reporting System (AIRS) database, making it a unique study. AIRS is a nationally agreed data standard which takes a systematic approach to collecting, recording and reporting information about responses to incidents and emergencies …

I would like to hand up a further document to include in our submission. AFAC have also rightly sent through information data to their members that the National Fire Incident Reporting System has data limitations. The reason I say that is that I note with interest Senator Back's questions regarding AIRS's data. What it says in the AFAC publication under the heading 'Data limitations'—remembering that AFAC represent all fire service bodies in Australia—is:

The data available on responses to fires and emergencies in Australia do not represent 100 percent coverage of fires occurring within Australia. This is because:

- •A significant number of fires (usually causing only minor property damage) are never reported to fire services and therefore no AIRS report is generated.
- •Not all Australian fire services contribute to the national database, and of the fire services that have contributed, some have not included responses from the rural component of their service.

In other words, they themselves say there are limitations to that data.

CHAIR: Can you identify that document. We do not have that yet, do we?

Mr Marshall: No. That document is on the AFAC document. It is titled *About national data*.

CHAIR: Can you give that to the committee later?

Mr Marshall: Yes, we will be submitting that to the committee. The other addition to our submission is that we would like to include in the submission an analysis conducted last week on the toxicity of this particular room that we are in now in the event that this room was involved in a fire. We say that not to frighten people but to make the point that, if the firefighters in this particular area had to respond, this is what they would face if they came into this room in a fire. This document is by one of the witnesses who will appear before this committee: Commander Brian Whittaker, a HAZMAT technician and expert, and also by a scientific officer. We say that to complete the record that the substances given off by Australian fires have a toxicity to firefighters that is no different to that elsewhere around the globe. We put that up for completeness.

There is one other thing we would like to add to our submission, and I apologise if I am rushing, but it is the first time we have done this particular type of presentation. It is a transcript of a training video given to metropolitan firefighters here that relates to their personal protective equipment. The reason we submit this as an addition to our submission is that we would like to play the video, with the permission of the committee, because it graphically shows that, despite the technological advances of the equipment for protecting firefighters when they go into structure fires, they do actually absorb the toxic environment despite that protection. In other words, it is impossible to protect them from that environment. This particular training video was designed to teach firefighters how to wear the new uniform—the latest uniform—which is only 12 months old. It shows a firefighter coming out of a fire covered in soot. That is the very problem that Mr Forrest was to make. So we would like to show you that.

CHAIR: Regarding the first document you presented to the committee, a letter AFAC dated 8 August by Naomi Brown, are you aware whether Naomi Brown is comfortable that this becomes a public document?

Mr Marshall: No, I am not.

CHAIR: The committee has it and we will not at this point make it a public document. We might try to ascertain whether the author is happy for it to become a public document. I just wanted to clarify that.

Mr Marshall: I will now go to our main submission. I would like to point out a number of paragraphs in the executive summary. Paragraph 1.2 states:

> The Bill removes barriers that currently prevent, or discourage, firefighters from accessing entitlements to treatment, assistance and compensation for the seven cancers.

Those being the cancers that the bill prescribes. We will hear evidence of that. This committee will hear evidence from firefighters who have actually experienced those barriers in a very real way.

Paragraph 1.4 states:

> Firefighters and the incidence of cancer has been the focus of many studies. It is now accepted internationally that there is a nexus between firefighting and the incidence of some cancers.

You will note with interest that the qualification in the AFAC letter says that they accept LeMasters—they accept that there is a higher rate of cancer in firefighting as an occupation and they want to build upon that knowledge to put in further preventative mechanisms.

Paragraph 1.5 states:

> It is known and accepted that firefighters are exposed to a range of toxins and carcinogens through their duties of firefighting.

As I said before, we had an analysis conducted last week on this particular room. Many of the toxins that would be given off if this room was involved in a fire are indeed carcinogenic. Unfortunately, that is an unavoidable risk of firefighters if they have to perform a rescue or indeed suppress that fire.

Paragraph 1.6 states:

> The toxins in structural fires including residential fires are not country-specific. Constructions materials, fabrics, furniture and electronics are universal.

You will also hear evidence on that particular issue. Paragraph 1.7:

> Australian firefighting Personal Protective Equipment for firefighters is essentially the same as Canada and the United States.

You have heard some evidence from Mr Forrest on that, but you will hear specific evidence from Commander Phil Taylor, who has been heavily involved in the development of Australian standards for firefighting ensemble and who has an extensive background in this particular issue.

Paragraph 1.8:

It is impossible to fully protect—

and we emphasise this—

a firefighter from exposure to toxins, as the firefighting Personal Protective Equipment used in combating structural fires at and motor vehicle fires, must be able to breathe.

The inquiry will see the different levels of personal protection that firefighters wear in the course of serving the community. It ranges from station wear right up to fully encapsulated suits. The main uniform that we use must be able to protect us from radiated heat and allow us to release metabolic heat build-up. You will hear about that from an expert. In other words: it is an unavoidable risk.

Paragraph 1.11:

The risk of exposure to toxins and carcinogens cannot be completely eliminated.

That is a fact, unfortunately, in this occupation which we have chosen.

I am not going to go through every paragraph; I will try to traverse the pages very quickly. Having stated that, because of my nervous disposition Mr Farrell will give expert evidence on the aviation side, as I understand you may have some questions relating to their activities. In relation to the construction of Tasmanian and South Australian legislation, it deems certain chemicals and occupations in the context of presumption. Ms Watson will give that evidence, given her legal background, if required by the committee.

We are a national union—the United Firefighters Union of Australia. We have branches in Tasmania, South Australia, Victoria, the ACT, New South Wales, Western Australia and Queensland and we have an aviation sector branch. We have over 10,000 members who are professional firefighters. We have been raising this issue not just lately. This has been an ongoing campaign for approximately 10 years for us and probably longer for our predecessors. It has been very difficult to get traction on this issue. Through a global alliance of firefighting unions, of which Mr Forrest's union is a part, we became aware of international studies that gave us traction, in particular, recent studies in 2007 which studied 110,000 firefighters and made the connection with cancer related illness and firefighting.

Earlier this year, to rectify the problem that our members faced if they were unfortunate enough to get a cancer related illness, we traversed to the Parliament of Australia and sought to educate our decision makers on the problems we and our members face in our role as protectors of the community. Our visit was during a very busy time, it was budget time, and we were fortunate to have 35 politicians make time to hear our submissions on this issue and gain a broad understanding. As a result of that, legislation was introduced to the House of Representatives on 4 July 2011.

With your indulgence I will take the committee to paragraphs 5.6, 5.7 and 5.8 of our submission. I do that to emphasise some of Mr Forrest's submission about this being a non-political issue. This bill was co-sponsored by the Australian Greens, the Liberal Party and the Australian Labor Party. The reason I draw the attention of the Senate to paragraphs 5.6, 5.7 and, indeed, 5.8 is that there are some very telling statements by House of Representatives members who had had the benefit of reading the literature and discussing this particular issue. We emphasise and draw to the attention of the Senate that it was a cosponsored bill and we not only endorse the sentiments expressed but also thank those who expressed those sentiments.

I think that often when we are trying to get people to reach an understanding of what we have experienced we come from a premise that we think that you have knowledge of what we do. Everyone understands that a firefighter fights fires, but they do a lot more than that. Paragraph 3.1 on page 5 of our submission talks about the different roles that fire services provide to the community. This was taken out of a report on government services done by the Productivity Commission. I plagiarised it—for a lack of better wording—but I am sure they will not mind. I will point out some of those roles and some of the hazards that firefighters experience in serving their community.

These roles include responding to structure, bush, vehicle and other fires, which is a core objective of fire services in Australia; providing road crash rescue and other rescue services, which is a core responsibility of many fire services around Australia; managing hazardous material incidents—and they are very nasty incidents—which, again, is a core responsibility of many fire services around Australia; and managing chemical, biological and radiological incidents. Radiological is dirty bombs. With nuclear and terrorist activity, the first responders

will be firefighters. I place this in the context that firefighters do not just fight fires; they do a lot of other things—and, indeed, you will not hear them talk about it because they go about it very quietly.

Another issue is the investigation of fire cause and origin. One of the most dangerous periods for firefighters is actually when the fire is smouldering—and studies will show that. That is when the incomplete products combustion are at their most intense. Again, that is an area that we wish to highlight as an example of one of the unavoidable risks that firefighters face. The last dot point talks about counterterrorist preparation work with police agencies and consequent management relating to a terrorist attack. Hopefully, we will never have to do it, but firefighter first responders are actually tasked with that particular task.

On page 6 we traverse the training. We often do not talk about our training, but firefighting is a qualified qualification. Senator Back rightly talked about the various certificates. It is important to realise the early journey of a firefighter once they choose the career of firefighting. It varies from jurisdiction to jurisdiction but it is basically the same. They start off with a very intensive selection process. There are usually over 1,000 applicants and up to 2,000 for 30-odd position. They undergo strenuous screening in relation to physical aptitude and medical tests—again, an issue that Senator Back raised. That medical testing is strenuous, to say the least. Very few of those applicants get through to become firefighters. That is why we have that healthy worker effect—and that is taken into account in the studies.

After the 17 weeks, they then are on probation for 12 months. So after 17 weeks—or approximately, depending on the fire service—they are deployed to the fire stations and they respond to fires. So it is after that period of time that they actually respond to fires. After four years, through continuous training and examination, they become a qualified firefighter. So they are a qualified tradesperson, if you like. Not many people understand that, but it is indeed a qualification and the exposure starts after that recruit course.

I would also add that not all of what we do is negative; a lot of it is very positive. One of the main focuses of firefighting duties these days is educating schoolchildren on the dangers of fires and what they should do if they are unfortunate enough to be involved in a house fire at home. That program is extremely successful. It is actually an international program and it has very high saturation among prime schoolchildren. Studies will show that that program has saved lives. Education programs are just as important as responding to fires. But, again we say to you, responding to fires is an unavoidable risk and we are hoping you can assist us with that particular issue.

Turning to emergency response, if you go to page 7 you will see a graph. That is the evolution of structure fire. If a fire were to be involved in here, that is the evolution of that particular fire. It is qualified. It is taken from various studies and inquiries. Fire services do base their response times on that. It shows that in the evolution of fires, depending on what is in the particular room, you have 7 to 10 minutes before you have a phenomenon called flashover. In other words—and the reason we put that in here—firefighters cannot sit outside and wait until this room is safe to enter into, if you are going to maximise the chance for saving lives. If you are going to minimise the damage to the property, you need to get in before that happens. That is a fact. That is why in this particular area, you are mandated with the 7.7 minute response time. That response time is on average 5.3 minutes. Indeed, as I said, last week we had this particular room analysed by scientists and HAZMAT technicians to show you what dangers are in this room. So it has got to be quick and it is not an option for a firefighter to wait outside. Hence we put that there for that context.

Aviation firefighting is similar, but Mr Farrell will speak about that. He has been an aviation firefighter for many years and he will tell you of his firsthand experience.

We talk about the scope of the bill. As I said, I will defer to Ms Watson in regard to the technical issues of that. But if you look at 4.1, if a firefighter was fighting this fire and was to fall within the coverage of this bill, and if the building collapsed on the firefighter—or, alternatively, he perished due to some other reason such as an explosion or a flashover—he and his family would be covered by compensation. He would be covered not only if he was to perish but if he were injured, because it is visible, it is seeable. The problem with what we have and the reason we have this inquiry is that the accumulated exposures, while visible, it is the accumulated effect that is killing us. You will hear evidence from firefighters who have a cancer related illness who will describe to you how hard it is to go through that system and why they do not do so. You will also hear evidence that a firefighter was dissuaded from making a claim for the very reason, 'Which fire caused your cancer?' That point will be made very graphically. You will see in very graphic terms the dangers we have once we show you that DVD.

At 4.7 we pick up on other submissions that are before this inquiry that say that for none of the cancers that are listed in the draft legislation have there been claims by firefighters who are to be covered for it. That is not surprising when you put 4.7 in the context of our whole paragraph 4.1. First of all, which fire caused it? It is an accumulated exposure. The second point is that the firefighter is so focused on surviving and getting well and

looking after his family that they do not want the stress of going through an adversarial system of litigation to prove that it was a fire. Hence, that is the whole purpose of presumption legislation.

I corrected 4.8 because I put in there 'highly unlikely', but it is in fact impossible under the current system. You will hear evidence. I think there was the observation from DEEWR—it might have been from the ACT government, I am not sure—that there has not been one claim. There is a reason for that and that is the reason we are here today: it is too hard to make that claim; it is too hard to prove which fire caused it.

Then it goes on and talks about Tasmanian legislation at 4.10 and the Workers Rehabilitation and Compensation Act in South Australia. Ms Watson can answer any questions regarding out. On page 10 we talk about presumption and the meaning of presumption, in the context of what was put before the Workers Compensation Board of Manitoba. That is in 4.14. The presumption is that the evidence and science stack up to say that, after many years of fighting fires, or after a number of exposures, firefighters do have a higher rate. More importantly, what I want to try and convince this committee of is the nexus with Canada and the US. Structure fires are no different. Toxins are no different. Uniforms are no different. They might be under a different brand or maybe a different code, but they are no different. The problem is the same. The exposure is unavoidable, and hence we rely upon the Canadian experience in that as well as the evidence from Commander Taylor and Commander Whittaker.

We talk about some of the safety nets. One of the safety nets is the ability for the employer to rebut. There is a right of rebuttal. However, it is a reverse onus. In other words, the employer has the right to say that it did not occur in the course of your employment as opposed to our having to try to prove that it did. There is a safety net for employers there.

Paragraphs 4.23 down to 5.0 go to the aviation experience, and I will hand over to Mr Farrell to talk about that after I have finished this summary. From 5.0 we talk about the international experience. In 5.3 we highlight presumptive legislation and say:

> In enacting similar presumptive legislation, Canadian politicians accepted studies that showed an increased incidence of and risk of cancer for firefighters and the link between firefighting duties and exposure to toxins.

We quote what was read into the parliamentary transcript over in Manitoba in relation to that presumptive legislation. Then we follow on to talk about the cross-party sponsorship of the bill that occurred on 4 July in Australia, which we are very proud of.

We then go on to talk about specific cancers and studies. One may ask why we have limited it to those ones. The reason is simply that they are the ones with the strongest links. The evidence is irrefutable. This is what the politicians first acted upon over in Canada. We add breast cancer and testicular cancer. I will explain why we do that, but again Mr Forrest is the expert who is best placed to answer questions regarding that. In paragraph 6.6 we talk about the LeMasters study of 110,000 firefighters from the United States, Canada, Britain, Germany, France, Denmark, New Zealand and, I emphasise, Australia. Then we talk about testicular cancer and the Bates study that came out in New Zealand. I had a quick re-read of it before to refresh my memory. If I am correct, that study says that it is three times more likely that firefighters will get testicular cancer as a result of their occupation. Breast cancer has not been investigated as thoroughly as other cancers; however, one of the primary causes of cancer is benzene, and benzene is in our environment. Again, Mr Forrest referred to a study regarding that particular issue.

The toxic workplace is a subject I will not go into, because you are going to hear about that in graphic terms from Commander Whittaker, who is an expert in that area. As I said, he conducted an analysis of this room, with a scientific officer, just last week, to show what would be given off if it was unfortunate enough to be involved in a fire. Our submission also talks about Tee Guidotti's research, which relies on a range of studies and literature. Guidotti's study is one of the primary ones that has been relied upon. Paragraph 7.4 of our submission is interesting. It says:

> The link between benzene exposure and leukemia is well documented. A number of studies in the petroleum industry have demonstrated a strong association between leukemia and benzene exposure and there was evidence that short term high exposures carry more risk than the same amount of exposure spread over a period of time.

That was a Monash University study here in Australia. It looked at the petrochemical industry, but that is exactly what firefighters face—short-term but high exposure when they go into a structure fire. It estimated that there are tens of thousands of toxins. We heard about the Mount Sinai study. And again Mr Forrest is best placed to answer those particular issues.

Paragraph 7.6 of appendix A is a list of firefighter exposure to smoke particulates. This study shows the type of chemicals that normal household products give off, and what a firefighter is exposed to. If you have a look at the analysis that was conducted on this very room just a week ago, you will see that the things in here fall within

the range of chemicals and toxins that are carcinogenic. We cannot control that. The only way we can control not being exposed to them is by not coming into this room. And that means that somebody will perish or that the fire will get bigger. There will be business interruption and a greater cost.

I will hand over to Mr Farrell and then perhaps I can show the DVD. I am almost at my conclusion. The DVD speaks for itself. It is a training video for firefighters. It will show that, despite all the protective mechanisms, firefighters are exposed to the very toxins that cause cancer. I might defer to Mr Farrell in relation to aviation. But it is up to you, Chair. Would you like to see the DVD first?

CHAIR: We will move to Mr Farrell and then Ms Watson, if she has anything to say. Then we will look at the DVD and then come back to some questions.

Mr Farrell: I am here today to support Peter in my capacity as the National President of the United Firefighters Union of Australia. I am also the aviation branch secretary and I am here to shine a light on the aviation rescue and firefighting service in Australia for the committee's benefit to try to alleviate some of the misconceptions that are generally held in the public arena about aviation rescue and firefighting personnel, which I will refer to as ARFF from now on, which is a little more expedient. The ARFF are part of one of the few federal firefighting services in the world and they are stationed at 21 airports around Australia. They are primarily trained to provide rescue and firefighting from aircraft accidents and incidents that occur on the airports in Australia. It does need to be recognised that most of the airports in Australia function like small cities.

In our submission we have concentrated on Melbourne specifically, and today you will see a demonstration by the ARFF personnel of their skills in putting out a structure fire and also dealing with an engine fire on a mock-up of a large aircraft. We have used the Melbourne statistics. I refer the committee to page 12. Looking at the 2010-11 statistics as provided by the fire service for us, you will note that over that 12 month period there have been 23 aircraft incidents and 656 responses to automatic fire alarms. It must be realised that any one of those fire alarms could constitute an actual fire. In fact, part of the training that the ARFF undergo is in some of these horrible scenarios. Imagine a 747 parked in a terminal area, possibly carrying over 450 people, fully fuelled with 200,000 litres of avtur, and a small fire commencing in a terminal area and a fire service not responding in time and putting that fire out. It has the propensity for massive loss of life and infrastructure. The actual fires recorded in the 12 months to 2011 were 30. There were 13 Hazmat responses and 668 emergency medical responses in that 12 months by that particular fire service at Melbourne airport. They provide also first responder capabilities. There were 26 motor vehicle accidents over the 12 months, 14 fuel spills and 12 other services, which could also include things like mutual aid.

When I talk about 'mutual aid', I can refer to some of the more well known incidents such as Ash Wednesday, Black Saturday and Coode Island. In fact, just as recently as last Sunday, our members were responding to a mutual aid request to support the Northern Territory fire service in Darwin at a huge factory fire. They were fully committed. Unfortunately, our members were involved in an accident at an intersection en route to that emergency. They were then the responding emergency vehicle to extricate the passengers from that car. They pulled three people out of that vehicle. There were four in it. Unfortunately, we found out today that three have deceased. We send our sympathies out to those families, of course. But it must be realised that the ARFF firefighters respond to a number of incidents, not just aircraft incidents. In fact, they also provide water rescue services at places such as Hobart, Sydney, Coolangatta, Brisbane, Cairns and Broome. I apologise if I have missed somebody, just going from memory around Australia.

When you look at Melbourne Airport—and we have taken it today as an example to assist in the understanding of ARFF responses—there are 12½ thousand workers who work at Melbourne Airport, yet 28 million people pass through the airport over those 12 months. As you would know, senators, from widely travelling Australia, a lot of these airports have factories, hotels and shops associated with the airport and the terminal area that help and assist in processing the passengers and indeed also in the operations of the airport itself. I think that virtually outlines it. I want to be as brief as possible, but I am quite happy to answer any questions.

CHAIR: Thank you, Mr Farrell. Ms Watson, do you have anything you need to add at this point?

Ms Watson: No, Senator. I am happy to answer some questions later on, if that is needed.

CHAIR: Do we know how long this video presentation goes for?

Mr Marshall: I think it is about a minute and a half, Senator; it is not too long. With your permission, I also point out appendix B to our submission.

CHAIR: Sure.

Mr Marshall: It is very important because it is procedures put in place to minimise exposure, but you cannot eliminate the exposure. In some of the wording—this is from the employer—it says that the wearing of PP in a

station environment is placing everyone at risk. It talks about procedures to prevent that. The reason I point that out is that there are procedures in place to minimise the risk, but you cannot avoid the risk.

CHAIR: I think we will be getting a physical demonstration of some of those issues during the course of the inquiry?

Mr Marshall: Yes, absolutely.

CHAIR: We will just suspend proceedings while we show the video; it will be easier for Hansard.

Proceedings suspended from 11:33 to 11:46

CHAIR: We are back on the record. We will now go straight to questions. Again, while I do not want to cut anyone off, we are running behind time significantly, so we will try and keep it as brief as we can because I certainly want to hear from Commander Whittaker and Commander Taylor. Senator Back, we will start with you.

Senator BACK: Mr Marshall, you heard the question I asked earlier of Mr Forrest going to AIRS, which I remember to be the Australian incident response system—is that correct?

Mr Marshall: That is correct.

Senator BACK: Can you tell me what information is currently gathered at incidents and then stored in databases within, for example, your service, in terms of presence at incidents, the type of incident, the length of time you were there and the length of time that you or an officer might have breathing apparatus on?

Mr Marshall: I can provide the committee with a standard sheet that is filled out, but there are a number of problems with that. As articulated, how good is the input into the data, as well as the uniform application of it? But I can provide that and we are happy to provide it.

Senator BACK: Surely this is fundamental, isn't it, to the wellbeing of people, especially with conditions of the type you are describing, where exposure over time is obviously important. And then, if somebody retires from the service, there is the fact that the data remains available at some time in the unfortunate event that they might end up contracting some form of cancer of the type that does not fall within the context of this legislation, or indeed another type. I would be most interested to receive that information.

Mr Marshall: What I can tell you is that I had a brief look. I cannot remember everything, but it does have a section that says 'exposure'. But that is exposure to the structure fire; it is not exposure to the firefighter. One of the things that a fire officer does—as you would be aware, given your background—is size up the incident, and they have a look at what other exposures are there, whether there is a house very close, whether there are residents involved or whether there are public dangers. So they do have a reference to exposure, but as I understand that it is not about the actual exposure to the firefighter.

Senator BACK: That is an excellent point, thank you; we will take that on board. I just want to come back to the whole business—not the cost-effectiveness; I think the effectiveness is proven. What tends to happen in these circumstances is that the studies are undertaken by people who, I think, are called actuaries, and they generally tend to be auditors without a sense of humour. But clearly in those studies, which are now undertaken on behalf of an insurance company, whether the existing insurer or a potential one—for example, if the cover is going out to tender or whatever—they would tend to look at the claims history. If we take the service that you have just spoken about, Mr Farrell, and the sort of data you have provided us with—the claims history—that would include the nature of the incidents over time. It would include the number annually and obviously what the cost has been to the insurer or the agency. The cost is obviously made up of the initial costs that might have to be paid and then the ongoing cost, and they will come to a determination or an estimate, if you like, of the risk involved and the cost.

What I am getting at is that the committee would be enormously assisted if in fact we could get some access to the sorts of processes that such an actuary would undertake in considering this event, because this constitutes a whole new circumstance. Again, the sort of information I think they would need would be numbers of people over time—the sort of stuff that hopefully Mr Forrest's assistance might render to us. You make the case very eloquently—there is no doubt about that—and we are looking forward to seeing things this afternoon and to coming back in two days time and going down to Geelong. This is critically important, but it is also critically important for the committee to understand. Is there any assistance that you can give us through your own services or information that you can point us to so that we can come to some understanding of the likely impact?

Mr Marshall: Not to my knowledge, but we are a national union and I will make those inquiries. I do know there are a number of senior officers who would be very supportive of what we are doing. They might be able to provide that data. I cannot speak on their behalf, but I will make the inquiries on behalf of this committee if you like.

Senator BACK: It may be that the information you could give us is such that the committee, through the secretariat, could write to these chief officers and request this information. I have no doubt, since the legislation is out there in the wider arena, that they themselves should be undertaking that very process at the moment so that they in their turn can alert governments, because, whilst we are talking about a federal circumstance with the ACT, the Northern Territory and the airports, it is obvious that should this legislation be successful we would expect it to flow through state and territory fire jurisdictions.

Mr Marshall: I am happy to do whatever we can to assist.

Senator BACK: My only other question comes back to volunteers. Does your service utilise the services of volunteers, or in Victoria is that more the CFA?

Mr Marshall: The UFU Victorian branch covers both CFA and MFB, but it is predominantly career staff, if not all career staff.

Senator BACK: I think we have other witnesses that I will direct questions to, particularly in terms of protective equipment. That concludes my questions.

CHAIR: We are significantly behind schedule, and I am very keen to make sure we hear from Commander Whittaker and Commander Taylor. So what I might do, Mr Marshall, is just ask senators to ask you one question if that is fine. We may in fact invite you back to Canberra, because there are a lot of questions we want to ask. We may deal with the bulk of our questions, and you may have some more to add by that time too, if that is okay. So I will probably cut you short if that is all right.

Mr Marshall: All right.

CHAIR: I appreciate that. So we will have more questions for you. I also want to put on record my thanks to Slater and Gordon. We have had some discussions with them and we will invite them back to Canberra. We will not have the opportunity to hear from them today. I certainly appreciate their cooperation in that matter too.

Mr Marshall: I do appreciate it. I am sorry for taking up so much time.

CHAIR: No, we started late.

Mr Marshall: As I have said, we have not done this before. But if I could have very short indulgence—I have spoken too much, as I normally do; you know me—Mr Farrell has a short statement he would like to make.

CHAIR: Sure.

Mr Farrell: Thanks very much, Chair. We were fortunate enough last week to meet with Senator Eric Abetz in Perth. Prior to the meeting, just to gain some anecdotal information for him, I spoke to our firefighters at the Perth fire station. I said, 'Could you possibly provide us with any statistics in respect to retired firefighters and those that may have contracted cancer?' I have got the figures back. They looked at 112 retired firefighters. Remember that the full staffing level at Perth is only 56 when it is fully staffed. Out of 112 retired firefighters 25 of those have contracted cancers. Very sadly, 12 have passed away. As for the types of cancers we are talking about, three members have brain cancer, one member has kidney cancer, three members have throat cancer—all nonsmokers—two members have bowel cancer, two members have non-Hodgkin's lymphoma, one has multiple forms of cancer and one has a carcinoma in the carotid near the head.

CHAIR: Thank you, Mr Farrell. I think it would be useful for the committee if you were actually able to document that and present that as a supplementary submission to the committee.

Mr Farrell: Certainly.

CHAIR: Thank you, Mr Marshall, Mr Farrell and Ms Watson. We will hear from you again and we will ask our questions then. We may in fact put some questions in writing to you in the interim between the Canberra hearings as well and if you can assist the committee that would be appreciated.

TAYLOR, Commander Philip Taylor, Private capacity

WHITTAKER, Commander Brian, Private capacity

[12:00 pm]

CHAIR: Welcome. Thank you both for your submissions and for your presentation to the committee today. Would you each state for the *Hansard* record the capacity in which you appear before the committee today.

Cmdr Whittaker: I am the commander of the Hazardous Materials and Scientific Unit of the MFB.

Cmdr Taylor: I am currently the Commander of Training and Development.

CHAIR: I would like to clarify that you are both appearing as private individuals and are not representing the brigade in a formal sense?

Cmdr Whittaker: I am representing myself.

CHAIR: I just needed to clarify that, thank you. We will try to keep things brief, but I know that the committee will have a significant number of questions for you so a lot of what you may want to tell us will be picked up in questions. I invite you both now to make some opening remarks to the committee, which will be followed by questions.

Cmdr Taylor: Prior to that, may I make an amendment to my submission?

CHAIR: Yes.

Cmdr Taylor: I have just noticed while reading it that there is a typo in section nine, which refers to an international agency on cancer, that should be the International Agency for Research on Cancer.

CHAIR: Thank you.

Cmdr Whittaker: I also would like to make an amendment to my submission. I would like to add the subject of the synergetic effect of chemicals. Basically, when one chemical mixes with another chemical, the intensity of the toxicity is increased exponentially. To explain that is simple: two common products of combustion are carbon monoxide and hydrogen cyanide. Separately they are very highly toxic products and we can measure them quite easily; they are very highly toxic at specific concentrations. However, when you talk about the added effect of both chemicals together, there is no exposure standard; there is no specific concentration. Any concentration is deemed to be highly toxic. I would like to add that to paragraph seven of my submission where I am talking about common toxic products with regard to combustion products.

CHAIR: Thank you. I now invite you to make some opening remarks to the committee, followed by questions.

Cmdr Whittaker: I thank you for accepting my submission and allowing me to speak today. I have a genuine concern for the health and safety of firefighters. My experience in the Hazmat unit over the past eight years has given me a very good appreciation of the hazardous products and hazardous chemicals that firefighters are exposed to.

My very good friend Bob Short passed away from several forms of cancer in December 2009. I was Bob's confidant for three years, supporting him and his family during three very difficult years. Bob was a 30-year veteran firefighter; he was an officer at a station in the city and was a very fit, healthy and strong firefighter until he contracted cancer. He had no family history of cancer whatsoever, so it came very much as a surprise to him that he had inoperable cancer. What I would like to share with you is what he said to me when he started to feel the financial impact that he was starting to suffer during his treatment. He went to the brigade medical officer and WorkCover to investigate what support and compensation he may be able to get to assist him through that. I remember him returning to the office, sitting down with me and having a talk about it. He said, 'I haven't got the energy or the time to go through this. What they said to me was simply that I had to identify what fire it was I went to that I contracted cancer from.' From the work that I do in the hazardous materials department, and from all the research that we have all discussed today, there is no question that Bob and firefighters in general are exposed to carcinogenic products at every fire they go to, so for him to try and pick that one fire that he went to is not possible—and he is just not in a position to do that, either. My submission is in honour of him and it is about my genuine concern about what firefighters are exposed to.

Regarding the toxic products that we have spoken about today a few times, I had one of my scientific staff come down here and we investigated this room. It is a very typical room with very typical furnishings and

construction materials. If the doors and the partitions are involved in a fire they will give off formaldehyde, a known carcinogen. The plastics and the fittings, the furniture on the chairs, the carpets and the underlay as well will give off benzene, a known carcinogen. The electronics in this room, including the light fittings, smoke alarms, speakers and things like that, can give off several different types of dioxins. Dioxins were also included in Agent Orange—known carcinogens.

Firefighters have a good understanding of what hazards they encounter. What I was trying to say in my submission is that we go to extraordinary lengths to protect ourselves from every hazard available; however, it really does come down to the competing priorities of risk management. Are we trying to protect ourselves from the immediate hazard of radiant heat and flame or do we switch to protecting ourselves from airborne chemical hazards? That is not an easy thing to juggle. It really is a matter of selecting which one you need. It is a hierarchy of hazards. If I am attending a fire my immediate hazard is fire and flame and I need to use an appropriate level of protection. Going to a HAZMAT incident, if there is a benzene spill—in my submission you would have read about benzene, one of the higher categories of carcinogens—and there is no threat of fire or there is no fire, we can have our firefighters dressed in what we call a level A fully encapsulating gas-tight suit. However, if all of a sudden there is a fire or a risk of fire—our gas detectors can indicate whether there is a risk of fire—we must automatically protect ourselves from that hazard and risk. We do not have the option of using both. Both cannot be used. We are at the crossroads of selecting what we are going to encounter. We spoke about the materials in this room.

CHAIR: If you do not mind, we might conduct this part of our inquiry a bit interactively. If senators have questions on the way, as long as it does not distract you too much, we might just ask those questions.

Cmdr Whittaker: That is absolutely fine.

Senator BACK: Thank you for allowing that, Chair. On that very point, Commander Whittaker, when you say you have a choice, is it the individual fire officer who makes the choice to use one or the other or is it a more senior officer who dictates to the subordinates that they will use one type?

Cmdr Whittaker: It comes down to protocols and procedures. It could be that the officer would say no. Our databases, where we look up a chemical we are encountering, will dictate and stipulate what is required for protection. The blue suit we have here is our level A fully encapsulating gas-tight suit. As you can see, the firefighter is fully encapsulated with breathing apparatus and undergarments. That level of protection will stop any kind of exposure to the chemicals we are talking about, the chemicals produced from combustion.

CHAIR: It looks like it would melt.

Cmdr Whittaker: It absolutely could not be used in a fire situation or where there is a risk of fire. Where our detectors tell us that it is a flammable environment, all that would be needed is an emissions source and this firefighter would be in severe trouble. That would melt, burn and even give off a lot of toxic products itself. I will now swap them over. I will let my colleague discuss this next suit.

Cmdr Taylor: I would like to draw the contrast between what you have just seen and the structural firefighting garment that is before you at the moment. You can see all the interfaces, where his uniform joins his gloves, for example, and where it joins his boots, around his neck and even the overlap between his trousers and his coat. You can see quite clearly that there is the ability for air to move in and out of the garment and, if you are in a smoke filled environment, smoke will move in and out of that garment. It is actually a function of part of the structural garment that you need to have that airflow. If he did not have that airflow, and you sealed all those interfaces, very quickly he would build up his internal metabolic heat to a stage where he would actually fall over from heat stress. As you can see, he is quite tightly wrapped up already. Without that air movement he would not last too long in a fire environment.

Cmdr Whittaker: With regard to the level A suit that you looked at, the blue suit, we have a maximum operating time of 20 minutes to operate in those suits simply because of the metabolic heat build-up and stress to the firefighter. They cannot regulate their heat whatsoever.

Cmdr Taylor: We would try to keep the use of that structural garment to one set of breathing apparatus, which would last between 30 and 40 minutes, before we sent that person back for rest, rehabilitation and rehydration as well.

CHAIR: I think it is pretty obvious that if there were a chemical spill you would use the blue suit, except in the circumstances where there is a potential fire. How often are you in a position where you are required to use the non-ideal suit, for a chemical type spill or a hazard exposure situation, because of the risk of fire? Is it more often than not? Is it rare?

Cmdr Whittaker: For my area especially, hazardous materials response, where we go to a spill or release of some kind of chemical, our initial entry, if we do not know what it is, will be the level A blue suit that you just saw. Once we can identify what the hazards are, including flammability issues, if it were deemed to be a flammable environment it is an automatic switch to structural firefighting gear and breathing apparatus.

CHAIR: Even though we are absolutely aware that that is not a suitable level of protection against that exposure?

Cmdr Whittaker: Against—

CHAIR: If it is about a chemical and exposure to a particular chemical, if it is a flammable situation we know the yellow suit is not an appropriate protective equipment set for that exposure, but because of the flammable potential we are forced into that situation. I guess what I am really asking is: people are actually put in the position of using protective equipment which, knowingly, will not protect them from a particular hazard. Is that the case?

Cmdr Whittaker: No. I will clarify that for you. It is when we do not know what the hazards of the spill or release are. We will go to the highest level of chemical protection, because at that stage we do not know whether fire is involved or the threat of a fire. The other equipment that we use, the other protective equipment, is detectors and, once we start entering, the detectors indicate whether we are entering a flammable environment, a toxic environment, a corrosive environment or a radioactive environment. We could go on about the number of detectors that we have. Once we identify what hazards we are dealing with and look at them in a bit of a hierarchy, because explosion and fire are probably at the top of the list with regard to the hierarchy of hazards, we need to select the appropriate level of protection, and that would be the structural firefighting gear. If we identify that there is no—

CHAIR: As I understand it, that does not protect you from toxic chemicals, does it?

Cmdr Taylor: If we had a fire situation that involved a lot of chemicals, tactically you might take a different approach. You might use what is called an external attack. Basically, you keep the firefighters back further in the initial instance. That is one way of actually trying to mitigate the risk. But when you have chemicals involved in a fire situation making the decision on which protective clothing to wear becomes quite complex

Cmdr Whittaker: I would like to add that once you are wearing the breathing apparatus you just saw your respiratory system is protected to the highest level. Structural firefighting gear does offer limited protection but it does not protect you from complete exposure.

CHAIR: Will we be able to explore these matters in more detail when we do the Brisbane hearing?

Mr Marshall: I am sure—Geelong as well because the firefighters will be addressed in different layers.

CHAIR: In the interests of time we might not pursue this particular issue any further. We will deal with that when we have the practical people present.

Cmdr Whittaker: A good example is that there are different levels of protection and you need to realistically work through the hierarchy of risks and hazards. We have discussed the products of combustion you would expect from a fire in this room. I always like to talk about a simple car fire. There was a question earlier today about the increased use of plastics. Twenty years ago cars had nowhere near the amount of plastics used in them as they have today. With a car fire today firefighters run into formaldehyde, aqualene, benzene, dioxins and the polycyclic aromatic hydrocarbons, the PAHs, particulate matter, at very high concentrations. As I said, there are no exposure standards once these are all mixed together. A simple car fire gives you all of that. To summarise, we cannot have firefighters going to a car fire or a fire in this building wearing a level A fully encapsulated gas type suit.

Cmdr Taylor: Thank you for the opportunity today to talk to the committee. I will try to be brief. As you can see from my CV I have had a fairly long interest in the health and safety of firefighters through my involvement with the United Firefighters Union. A lot of that work has been in trying to mitigate a lot of the hazards and the risks that firefighters face. Also I have an interest from the point of view that my family has long history with MFB. My father and uncle were firefighters, and my brother and brother-in-law are currently firefighters. I also have an interest in the fact that my father also is a cancer survivor and I refer back to Mr Forrest's example of the chimneysweep. I can remember as a child my father coming home. Back in those days he used to work the afternoon shift and he would finish at three. He had been to a large fire, he came home, came to the door and he was pitch-black. I did not think of it at the time, obviously, but now reflect on whether that might have potentially been one of the factors that lead to him to contracting cancer.

Also, like Brian, I have got a number of friends and comrades in the fire brigade that have either died from cancer or have been sick from cancer, so I have an interest from that point of view in trying to reduce the level of hazard that we are exposed to.

My previous role was working and managing the protective clothing project for the MFB, which resulted in us replacing all of our existing protective clothing equipment with new state-of-the-art protective equipment. That video was a training resource as part of that project and also an opportunity to highlight the hazards that firefighters face and how they should manage and clean their gear to help reduce those risks.

CHAIR: The current equipment you are using now in the MFB—is it that state of the art?

Cmdr Taylor: That is certified to the current Australian standard.

CHAIR: Is that considered world's best or do you see better around?

Cmdr Taylor: A lot of countries around the world have been trying for years to develop one international standard, but there are different interests from different parts of the world and there are probably a lot of different vested interests. The stage we are at at the moment is a lot of the Australian standard is based on what an ISO standard would be but it is probably a blend of the American and European standard.

Also, as the union health and safety coordinator for 10 years, I was enlisted to represent the union on the Australian standards committee that develops firefighters' protective standards, and we have been involved in that for quite a period of time. I think when I first joined in early 2000 there wasn't an Australian standard at all. I think the first time that standard was introduced was in about 2002. Prior to that there was no standard. Rather than go any further, I will probably leave it open to you to ask some questions.

CHAIR: Perhaps I can start and ask both or either of you about—and these are only your personal views but that is what I am seeking—your views on the awareness amongst your firefighting colleagues of the risks that they are actually engaged in. Do you think there is a high level of awareness?

Cmdr Whittaker: I believe so. I think most firefighters in my opinion are very aware of the risks with regard to smoke and the products of combustion from fire. When I joined 26 years ago, BA was probably only starting to be used more regularly. Nowadays, it is used at every single fire. With regard to their awareness of the hazards, yes, absolutely because they will use their breathing apparatus and, like I said, they do not have a choice realistically with regard to the uniform that they will wear. If it is a fire or threat of fire, they will be wearing their structural firefighting gear. If it is a HAZMAT incident, my type of incident, they might choose something else.

CHAIR: So firefighters would be very conscious of applying their protective gear appropriately and making sure that it is properly applied to reduce exposures.

Cmdr Whittaker: Absolutely. Inherently, our job is to reduce and eliminate risks. The situation we are in here today though is we cannot eliminate every risk a firefighter will take. Firefighters will take risks to do their job—that is our industry. We will take risks to go and save a life, to evacuate an area to save property.

CHAIR: Before I hand over to my colleagues, there is another question that I am interested in. Commander Whittaker, you talked about a personal experience with the process of making compensation claims and the difficulties. I am wondering whether anyone wants to elaborate on that. Again, this is something that is well known amongst the firefighting community, and it is the sense of frustration and the level of success, if there has ever been any success, in actually making those claims.

Cmdr Whittaker: I do not know of any success in making claims. I was very close to Bob during those three years. I know he was very frustrated when he was told—that example I gave you of identifying the fire—and he just did not have the energy to pursue that. He did not have the time, because he was told: 'This is terminal. You only have three years.' I know some other friends, firefighters who are here today and also firefighters you have submissions from, who are in a very similar situation. You used the word 'frustration'. I am personally frustrated for those people, but I am sure—you would have to ask them—they would be more frustrated than I could ever be.

Cmdr Taylor: I am not aware of anyone who has been successful in a claim either.

Senator WRIGHT: I guess we become increasingly aware of hazards in workplaces over a period of time. The idea of asbestos comes to mind for me. I am interested in whether or not you have a view about whether the families of firefighters, their partners or their children, are at any risk of contamination as well, or is it that the decontamination process that we have seen discussed today is such that that is limited now so that the uniform and the PPC are dealt with at the station and do not go home?

Cmdr Taylor: Families are potentially at risk of exposure. Obviously all our protective clothing is cleaned by a contract cleaner that is engaged by the fire services. But socks, underwear and T-shirts are cleaned by us; we

take them home. Quite a few times I have taken them home in the past and thrown them in the laundry and the off-gassing, the smell, the odour is really quite strong. On a personal level I am probably more aware of that these days—take it home in a plastic bag and throw it straight in the washing machine. But even that raises the question of whether you should be using a domestic washing machine that your family washes their clothes in to launder your potentially contaminated underwear and clothing.

Senator THISTLETHWAITE: Going back to the issue of successful claims, if a firefighter were to contract cancer and unfortunately pass away, what support is there for their family financially in the wake of that at the moment?

Cmdr Taylor: Perhaps that is something that Peter Marshall might be able to answer.

CHAIR: I think that might be appropriate. We will do that in Canberra. You have got plenty of notice of that question, Peter.

Senator BACK: Commander Taylor, in No. 15 of your submission you speak of the hierarchy of controls. Obviously the highest one is to eliminate. You heard my questions of Mr Forrest earlier. I look at things through two eyes. One is the duty of care as an employer or as a chief executive officer of a fire service and the other one of course is for the genuine care and concern of individuals. That causes me to ask the question that I asked earlier: surely, at least for a small section—I mentioned a couple of types of cancers and we also engaged in a discussion on cardiac problems—is it not the duty of care of the chairman of a selection panel armed with the knowledge of, for example, family history that the best way to eliminate the risk of that person themselves being seriously damaged or in fact also putting colleagues at risk in a fire situation to actually counsel them not to proceed with an application in the first place? I know there are all sorts of issues, but we are not talking about the wider community and neither should we be distracted by the wider community. The role that you undertake is a very different role to that of members of the wider community. I could even venture the opinion that on a mine site, if they were considering people to drive 350-tonne ore trucks on roads where there are others driving the same trucks, I have little doubt that, under duty of care, that matter would be taken into account. I just wonder where you sit, in your context as individuals and as commanders, with that sort of dilemma or that sort of issue.

Cmdr Taylor: Are you talking about pre-employment screening?

Senator BACK: I am, yes.

Cmdr Taylor: I can only talk from the perspective of the types of people we recruit at the moment. The recruiting process is very comprehensive. People have to have an extremely high level of fitness and they pass through a number of medical exams. I really cannot comment on whether the pre-screening process is valid. I think Mr Forrest alluded to the fact that, just because a parent or sibling may have had a particular cancer, it does not necessarily mean that that person is susceptible to that type of cancer. I agree with him that it would be at least unfair and possibly even illegal to eliminate that person from being a potential firefighter on that basis.

Senator BACK: Unless, over time, history accumulated and did point to a higher likelihood. I do not think we are going to resolve it here. I do not think it will form part of the report or recommendations, but there are two sides to it, aren't there? In the event that there was a long family history—I will use a heart condition as a better example—and someone did pass away in the heat of a fire, the wider community and friends and others would gather around and say, 'This could have been foreseen.' I accept the point you are making that, if 30 out of 2,000 get a guernsey, I do not think I would put my name down.

I come from a rural area in Western Australia, where the obvious likelihood is that, if a truck goes over between somewhere like Hyden and Norseman, with two or three trailers and with chemicals presenting a real Hazmat situation, it is not going to be highly skilled permanent firefighters who are going to get out between Norseman and Hyden—the closest one would be 400 kilometres away. It is going to be the local volunteers, usually farmers if it is the middle of harvest, and the best they would have is a pair of boots, shorts and a black singlet. From your experience and from the fact that you have worked in this field of protective clothing et cetera, is there any encouragement at all that you can give to volunteer brigades or to services that manage them to try to at least give some level of protection? There is no point saying, 'Don't go near it,' because if the cab is on fire and the bloke is in there people are not going to stand by—they are going to try to get the person out. We know that.

Cmdr Whittaker: I am a member of various state and national Hazmat working groups and committees and we are trying to address that on a national basis so that firefighters in general across the country will have a better knowledge and understanding of responding to an incident—fire or no fire—that involves hazardous materials. I hope I am answering your question there. It is being addressed, but it is not an easy solution because of the remoteness that you are talking about.

Senator BACK: Could you give us a rough idea of what it would cost? Are we talking $10,000 for the structural fire—

Cmdr Whittaker: It is $5,000 for the suit alone. Then there is the breathing apparatus on top of that.

Senator BACK: So 10 grand would be fair. And then your blue one? Your level A?

Cmdr Whittaker: Sorry, that was the blue suit I meant.

Cmdr Taylor: The structural one—the brownish coloured one—is about $1,500.

Senator BACK: Thank you.

CHAIR: Unfortunately, I think that is all we have time for but, given that we have been a little bit rushed, if there are things after your presentation today that you feel the committee should know about, we invite you to make a supplementary submission to the inquiry and we will accept that.

Cmdr Taylor: Thank you for your time. We appreciate it.

Committee adjourned at 12:34