

TRANSCRIPT

ENVIRONMENT, NATURAL RESOURCES AND REGIONAL DEVELOPMENT COMMITTEE

Subcommittee

Inquiry into the CFA training college at Fiskville

Launceston — 3 June 2015

Members

Ms Bronwyn Halfpenny — Chair

Mr Tim McCurdy — Deputy Chair

Staff

Executive officer: Dr Greg Gardiner

Research officer: Mr John Aliferis

Witness

Mr Robert Joy, chair, independent Fiskville investigation.

**Necessary corrections to be notified to
executive officer of committee**

The CHAIR — On behalf of the Deputy Chair and myself, I welcome Mr Robert Joy. Thanks for coming in today. All evidence taken at this hearing is protected by parliamentary privilege as provided by the Constitution Act 1975 and the provisions of the Parliamentary Committees Act 2003 and is protected from judicial review. Any comments made outside the precincts of the hearings are not protected by parliamentary privilege. All evidence given today is being recorded, and you will be given a proof version of the transcript. Would you like to give a short presentation first, followed by us asking you questions, or do you want to go to questions? I note that you have distributed to us a document which is an overview.

Mr JOY — I thought it would be useful to cross-reference between the committee's terms of reference and the terms of reference of the inquiry that I chaired back in 2012, because there are clearly many linkages there. I will try to navigate my way through referring to that as I go, if that is acceptable.

Mr McCURDY — Yes.

The CHAIR — Sounds good. We will give the other copies to the rest of the committee when we get back. Thanks for the extras. It is in your hands.

Mr JOY — I will begin by thanking you and Mr McCurdy for coming across the water to see me. I do apologise for not being able to travel to Melbourne; my health has been very up and down of late, but I am here and more or less intact. Once again, thank you for the opportunity; I really appreciate that.

I thought I would begin by, as I first mentioned to you, emphasising the very strong linkages between your committee's terms of reference and the terms of reference that the project that I had chaired back in 2012 was given, because I think there is much that could inform your work in the work which has already been done.

If it is agreeable, I might start off by painting a little background as to the nature of that work, in particular emphasising the fact that while it is often referred to as 'the Professor Joy report', it is very much the product of a collegiate exercise with very considerable resources devoted to it. In particular I was fortunate in having two extremely skilled senior executives: one, Danny Maloney, who was a previous assistant commissioner, crime, in Victoria Police; and a very experienced executive from the Victorian public service. Add to that staff of some 40, which included experienced investigators, analysts and people who are very skilled in interview techniques, together with admin staff.

A number of consultancies were let: a very major consultancy with KordaMentha to go through some millions of documents, which were very poorly catalogued in many cases, at CFA sites; important consultancies that I let to Golders, which is a major geotech and contamination consultancy; and also a consultancy I established through the CFA with one of their senior staff to examine the regional sites. I understand the regional sites are not part of your brief, so I will not dwell on those.

The exercise started off just before Christmas in 2011, and by the end of January we had established a small team which then grew over the next month or so to a total of about 40, as I have said.

Probably the best thing then is if I simply work through the terms of reference, including your terms of reference, with the relevant parts of the 2012 study and then leave it open to you to pick up points and questions as you may go.

The first term of reference of the committee focuses on pollution, contamination and unsafe practices from 1970 to the present. Just in terms of the time period, it is probably worth saying that the time reference for my report was from the establishment of Fiskville in 1971–72 through to 1999. Obviously the committee's terms of reference will relate through to the present, so it goes beyond that. The date 1999 was significant in terms of Fiskville's development, because it was the point at which the area used for the major firefighting drills, called the PAD, was reopened after a major development period of a couple of years. Practices and methods changed a lot, the infrastructure changed a lot, and that is why the 1999 cut-off date was set. However, there were two instances where I extended beyond that.

One was in relation to an incident in 2000 when a bulldozer driver operating in part of Fiskville inadvertently dug up some buried drums and was exposed to chemicals. That was one thing which we needed to investigate thoroughly, and we did even though it went beyond 1999.

The other area was the use of foams, because foams containing residues of PFOS, which you would be aware are a major concern at present, continued until 2007, so in relation to foams we extended our investigation through to 2007.

The CHAIR — In terms of 1999, when you said it was because of renovation or redevelopment of the pads, was it seen that from then on they would be better?

Mr JOY — Things changed dramatically with that major renovation. For a start, the fuels that were used were changed in terms of the balance. It became very strongly diesel and petrol only along with LPG.

The CHAIR — So none of the unknown mixtures anymore, you mean?

Mr JOY — The unknown mixtures, I would suggest, ended probably in the early 90s. Basically the PAD and its redesign and also the redesign of the treatment facilities for fire and water, that essentially occurred in the period 98 to 99, so it was a landmark. But in terms of the other changes, they had been gradually occurring from the 80s through the 90s, and the report goes into considerable detail about how during the 1990s concerned staff at Fiskville really jumped up and down and insisted that senior management at headquarters started paying attention to what was going on down there. Really the catalyst for change was probably in the early 90s, and the eventual major redesign of the facility was the ultimate product of that. I think that is an important point, because it very much is a historical study the study which we completed. It certainly does not touch on current practices.

The CHAIR — Do you think that is a bit of a failure then in your report in terms of informing the future — the fact that it does not go up until at least the time that you had commenced the study?

Mr JOY — We ran, as I say, to 2007 in relation to the foams issue, but in terms of the areas of concern, basically all of those practices and the infrastructure had changed so much by 1999 that that was a logical date to make the break.

The CHAIR — Okay. Even now that there was further testing of the water and the closure? Do you think, based on that sort of information, that perhaps it should have gone a bit further?

Mr JOY — Possibly it could have, but again, the concerns which are being raised now stem from I think a fundamentally different point than the major concerns which we were looking at. The concerns now are very much less frankly, despite all the heat that is surrounding them, than the concerns which arise from the 70s and the 80s. The practices then were by modern standards quite — some of the storage of chemicals was very poorly managed. The actual practices in the fire drills often were carried out without breathing apparatus. In other words, very different from the way in which things are carried out now.

The CHAIR — But what about risk to environment and the risk to people?

Mr JOY — The risk to the environment and the risk to people is dramatically less than it would have been during the 70s and early 80s when chemicals, which were gathered from who knows where, were used with manual handling practices, which again would be quite unacceptable now. People were exposed in ways which they are no longer exposed. The concerns now really are down at a level an order of magnitude in my view less in terms of potential risk to health and the environment. We are talking about very tiny residues of persistent organic chemicals from the foams. The other issues in terms of buried drums, residual contamination of soil and the contamination of water on and off site I believe have been thoroughly covered and do not present a significant risk to human health or the environment.

The CHAIR — Sorry, I interrupted.

Mr JOY — Those are important points. Thank you for bringing them up. In relation to term of reference 1, the relevant parts of the independent Fiskville investigation report are chapters 3 and 5, which deal with materials and practices. Perhaps at this stage I could draw your attention to the slides. In this case I am talking to slide 5 and then going on from there. One of the points which we pretty soon concluded was that there was never going to —

The CHAIR — We are talking about page 6?

Mr JOY — I am talking about chapter 5, term of reference 1a — materials. Despite all the work that was done, it was virtually never going to be possible to get a very detailed and evidence-based view of what materials were taken into that place, particularly during the 70s and early 80s, coming in in drums from a variety of sources. I think to the extent possible we did chase down most of the burrows, but when you think back to that period, essentially what we are talking about is not materials which were being purchased under purchase orders; these were gifts from the local garages of sump oil and paint residue. Anything that they could get their hands on — things which would burn and provide them with realistic exercises — they would take them. They had a truck that went around all the local garages collecting the sump oil. Dulux and firms such as that gave paint residues and solvents, so by their very nature they were things which were not documented. There was no money changing hands, so only on about four or five occasions did we come across any written evidence of what was happening.

Again, you need to think back in terms of the exercises of the time. These were necessary materials and ingredients of getting realistic firefighting conditions — the sorts of materials which people were coming into contact with every day in certain industries, in garages and on farms — so nobody really thought much about it, and they were grateful for anything they could get. In fact at one stage, as we note in that part of the report, to give you an example of how open it was, somebody was looking to dispose of some hydrocarbon waste of some sort. They could not put it into landfill, so they were told by the waste treatment firm they were dealing with, ‘Ring this number and they might be able to help you out’. So they rang the number, and the number was Fiskville.

The CHAIR — We have Brian Potter’s transcript. Is that from his — —

Mr JOY — It came up in a number of places.

The other thing which is relevant here, I think, is to remember that until the late 1980s Victoria had no comprehensive set of regulations to deal with hazardous wastes of that sort. There was no treatment industry as such. A lot of this waste just went to landfill. There was no way that people looked askance at this practice of taking unknown drummed materials into Fiskville to use them in firefighting drills. They were just materials that were there. The regulations say nothing about them. It was not really until the 85 and 87 changes to the EP act — Environment Protection Act — and the regulations that a system of licensing treatment facilities and tracking waste was developed. That tracking system was in fact subsequently used when some of the drummed materials were eventually removed from Fiskville for proper disposal.

Mr McCURDY — That was in and around the same time that there was other legislation being developed in terms of OHS and dangerous goods and all those things — in the mid-80s.

Mr JOY — Absolutely, very much so. It tended to be in parallel. Again, that was around the time, or a few years following that, that some of the staff at Fiskville became concerned, because they were out there preaching the gospel elsewhere to industry about safe storage and safe handling, but it was not happening back at Fiskville. That tended to drive their concerns and eventually prompted a thorough audit of what was going on there. That in turn eventually led to the major changes in practice and infrastructure.

We will never know the exact nature of that drum material. The greatest risk in relation to these unknown materials was the materials in single drums, because the drums might have had labels but the labels would not necessarily refer to what was in them, so they were really completely unknown. Basically all they were concerned about was whether they had a flashpoint that would make them suitable for their exercises. We are talking here about paints and solvents and used oil.

The key risk factors that we identified were in the manual handling of these materials. Whereas the basic supply of petrol and diesel, even from the early days with reticulated supply, was from above-ground tanks, this stuff coming in from the outside was in 44-gallon — 220-litre — drums. The drums were stored, and when they wanted to use these material in ‘props’, as they called them, which might be a burning car or whatever it might be, the materials were decanted by hand from the 44-gallon drums into smaller buckets, literally buckets, and carried by PAD operators, who had overalls and that is about it — essentially no goggles or no gloves. When they carried this stuff across it would splash and get onto them, and then they would dump it in and set it afire.

The main risk we concluded in relation to these unknown materials that were coming in was the materials in drums, and the main exposure was not so much to the people doing the training, fighting the fires, but to the

guys who had to set the thing up — the PAD operators, as they were called. Hence they eventually wound up in one of the highest categories of risk.

Also a factor which we needed to consider in relation to the materials, and the ones which are of most concern, are the so-called aqueous film-forming foams. These are foams which are put in basically to deal with oil fires and to fill up volume in buildings. As you would know, the current concerns focus particularly on residues of — I always have difficulty in getting this out — —

The CHAIR — PFOS.

Mr JOY — That is the abbreviation — PFOS — which is an organic surfactant. It is extremely persistent in the environment, and there are small traces of it detected in virtually all humans in developed societies, including us. We would have minute traces of it in our tissues, along with DDT and other organic compounds. The table that is on page 61 and 62 of the report, if you have a copy of the report there, basically just summarises all of this in a single place.

The CHAIR — Professor Joy, a few times you have talked about the fact that in those days it was different and that people did not know what they know now. That is even shown in the title of your report. We are talking about the way people were exposed to chemicals, the way they accepted donated fuels and burned whatever it was and, I guess, the burying of drums of contaminants all over the place without any records and all of that. We know there was legislation in the 1980s, which you have referred to as well. Are you saying that this all happened before then?

Mr JOY — Yes, the worst practice — —

The CHAIR — When you say ‘the worst’, if there was legislation that talked about the disposal of chemicals, the labelling of chemicals, training people to use chemicals and protective clothing, that was — —

Mr JOY — I could characterise the 1970s as the Wild West, because the background work done by the EPA in the early 1980s led to the major change to the Environment Protection Act, which was in 1985, and then the regulations subsequently developed and put in place were there by about 87 or 88. So when we get to the early 90s we find that the more concerned people at Fiskville were starting to say, ‘Hey, look at this. There is a set of laws there, a set of occupational health and safety laws — —

The CHAIR — But there were obligations on owners of properties and employers to do things from the 80s — —

Mr JOY — From the 80s onwards. From the late 80s onwards — —

The CHAIR — Probably even before that. There was probably something in the 70s. There was legislation also in the 70s.

Mr JOY — The legislation in the 70s in terms of storage and handling of dangerous goods was very limited. In terms of hazardous waste it was almost non-existent. The health department at that stage was in charge of certain aspects of it, like landfills, but basically what we concluded was that the CFA by the early 1990s was behind the game. Much before then I frankly think it is pointless to be throwing too many rocks, except in relation to the case of Alan Bennett, which we have documented in considerable detail. That is the officer who was overcome by fumes in 1982 and was off ill for a while. Just as an aside, it is instructive, I think, as to the way in which people thought about this, that neither Bennett nor the other people who were involved in that incident when they were shifting these drums, which were leaking and had caught fire — after the fire was put out they shifted them with a front-end loader, probably some 20 or 30 drums. They were leaking, they were smelling, they had caught fire. Most people would have thought, ‘Oh, this is really hazardous’. No, the guys had minimal protection, loaded it into the front-end loader, transported it to where they were going to bury it and even the guy Bennett himself, who was off for a couple of days — —

The CHAIR — Do you think that the individual worker should be responsible for these sorts of things?

Mr JOY — No, what I am saying is they thought nothing of it. It was not a big deal for them. It was not until Alan Bennett started to show significant symptoms of ill health years later that he then took it back to CFA. And that is where CFA really dropped the ball, because they had a clear indication: here’s a bloke who

was involved in an incident, never reported to head office, but none of these things were. In fact the interesting thing is — and they were very lucky — we could only find any indication of three different incidents involving chemicals. Frankly, I do not think there were that many more. I think they were just lucky.

Back in the 70s there was an exposure to chlorine. I will tell you how it happened. They had a hut or a shed there in which they kept not so much flammable materials but materials which could create real problems for people in fires, things like magnesium — metals which burn, things of that sort, chlorine. People were exposed to these literally by saying, ‘Do you know what chlorine smells like? Have a whiff of this.’. One guy was overcome by fumes during this part of the practice and had to go to hospital. He was back in two days time. The only reason we know about it is because the people remembered it. Again, it was a culture. One of the things put to me was by one of the guys who worked there at that time was, ‘We were supermen. We wore our jocks on the outside of our strides. We were tough’. It was a militaristic organisation. You did not cry; you did not complain. These things — basically until the late 80s, when staff started to get worried, and the early 90s — were very largely overlooked. Fiskville operated — —

The CHAIR — Just getting back, in terms of legislation, maybe I did not ask the question properly, but when you talk about people did not know or they did not understand and that it was only later on that they started to raise questions, why do you think it is the responsibility of the individual, the person — say, the trainee or the recruit — to raise the issue? Under the legislation it was the responsibility of management or the decision-makers to ensure that there was a safe environment.

Mr JOY — Nobody thought about it. There are two levels of management that I think are relevant here. One is at Fiskville and one is at head office. At Fiskville, basically the buck stopped at Fiskville — in other words, almost regardless of what happened until the 90s — —

The CHAIR — They were sort of autonomous — they ran autonomously?

Mr JOY — Yes, they basically ran autonomously. One of the areas we looked at was the minutes of the meetings which the senior management at Fiskville held regularly. Even following things like that chlorine incident, they just did not think to note it. So there are two levels of management that I think are relevant here. One is at Fiskville, but ultimately the key level of management is at head office; it is the senior management at head office and the board. What I am putting to you is that during the 70s there was just not a general recognition of the employer’s responsibility — on farms. If we look at some of the practices on farms, they were very similar to the practices here at Fiskville in terms of handling rural chemicals.

The CHAIR — But it was really, then, not knowing the law, as opposed to not having any responsibility for it?

Mr JOY — The law was so vague in terms of the specifics that it just did not figure in their thinking. It was so vague that in Dandenong, for example — if I can digress slightly — there were drums piled 20 high, containing waste which nobody knew and which could have created an absolute holocaust had they burnt. That was the disposal system in the industrial areas of Dandenong. Until such time as you had the revisions of thinking and law in the mid-80s, flowing ultimately through into the early 90s, that duty of care by the employer just did not figure in industry generally and certainly not in places like Fiskville.

That is why I have so much admiration for the staff who in the early 90s really put their careers on the line by starting to complain and starting to insist that things change. That is one of the reasons we are critical of the CFA management at that time, that it had to be driven by the staff; it was not driven by them. They simply did not show any recognition of the changed environment in relation to occupational health and safety in the environment. It did not show up in the board minutes very often. Certainly in relation to the Bennett case, even when he came back and drew their attention to the severity of the situation and even when the bulldozer driver ripped up the drums, really it did not figure at head office.

That is the main reason that we were critical of CFA — basically Fiskville was allowed to operate pretty much as an independent fiefdom. Little attention was paid to it. They had to get by on the smell of an oily rag because their budgets were so low. That is another reason they begged fuel from anywhere they could get it, because their budgets were so limited. Really it was not until the mid-90s that a concerted effort was made to actually find out what was going on there, how the practices needed to change.

Mr McCURDY — I think that it where the concern is, that lag between when the community, the government — everybody — started to understand OHS, in the mid to late 80s, and then there was that lag between then and the mid-90s before it was actually acted on.

Mr JOY — That is where we focus our criticism in chapter 9, I think it is, which deals with the management response. We have gone through that very forensically, looked at every document we can find and basically conclude that they did not do their job properly. We are just fortunate that more people were not exposed to acute situations. They were very lucky. Interestingly, too, we could find only one or two records of broken limbs during fire practice across those years. Again, quite amazingly lucky. One guy died, but died of a heart attack. So they had a fair bit of good fortune too.

In terms of materials, we will never know exactly what it was, but we know enough about what it was to conclude that you would not in a fit consider working that way at present, with people carrying unknown solvents and flammable materials in open buckets to fuel props. Similarly, breathing apparatus was very seldom used, because it was expensive and limited in supply. So they were sent into situations which, after, say, 2000, again would not have been considered without breathing apparatus. While there is still danger out there, no-one can say that “because your training exercises are not sufficiently realistic they are not useful”. So there is danger there but there is a very much safer environment for people learning how to fight fires than there was earlier.

The CHAIR — During that time when you were with the EPA, can you compare what the EPA environmental protection and regulation was in comparison to what was happening at Fiskville at the same time?

Mr JOY — By 1990 Fiskville clearly was not in line with the regulations, with the EPA regulations and not in line almost certainly with the dangerous goods storage regulations. I joined EPA in 1989 and really had nothing much to do with Fiskville in my position, but the Geelong office gradually started to get interested in Fiskville and some of the documents we found through a search of EPA records showed that they were concerned. They were concerned about some unlicensed landfills which had been established out the back of Fiskville, one very early on in about 1972 and one later in the 80s, because a whole lot of interesting things had been dumped there, mainly crushed drums and old insulators — a whole range of things. But it was strictly an illegal landfill situation, so EPA worked with them. But because they were not receiving any putrescible wastes — it was only solid wastes — it did not have to be licensed. Gradually EPA got more and more interested and eventually notices to take some action in relation to those things and disposal of buried drums took place during the late 80s and early 90s, but again EPA was slower than too.

The CHAIR — So they issued some notices about some drums?

Mr JOY — Notices in relation to landfilling, and when eventually drums were dug up and had to be disposed of, they were disposed of in accordance with the transport certificate regulations; that is how we were able to track a couple of the burial exhumations.

The CHAIR — But were there any penalties or anything else that applied as a result of being in breach of legislation, or the like?

Mr JOY — No. It really was later, when one of the nearby neighbours, quite recently as I understand from submissions, was being impacted by smoke from the site, and I understand that EPA — this is quite recently — is working with the health department to establish a proper protocol in terms of wind direction and burning.

In terms of materials, that probably provides you with a bit of an overview of where things stand. If I could move on then, and we talked a little bit about practices as well, to your first term of reference, which also covers contamination and contaminants. If we move over to the set of slides, there is one on chapter 6 that deals with contaminants. Perhaps I can just reiterate some of the points which we have touched on to date.

We are looking at slide 8, chapter 6, term of reference 1c. The broad areas of concern that we have talked about are petroleum hydrocarbons, and we are absolutely certain there are lots of those, and possibly persistent organics like polychlorinated biphenyls — these are insulating materials used in transformers until the mid-1970s, early 1980s — again, persistent materials harmful to the environment, possible carcinogens. Dioxins and furans, products of combustion, again carcinogens. Chlorinated pesticides, it is possible that these were used, but unlikely because they are not really flammable, and what they were interested in were things that

burnt readily and hotly. Because of that I think it is unlikely that PCBs would have been involved and I think it unlikely that pesticides were, but certainly chlorinated solvents like spent dry-cleaning fluid and things of that sort and of course the foam breakdown products which we have talked about. Various metals were also used in firefighting exercises.

If we then turn to what was actually contaminated, the work that we did here was done for us largely by Golder Associates, who produced a couple of major reports for us. They looked at soil, surface water and groundwater, except that groundwater effectively could not be found. If there is a groundwater system there, it is quite deep, and simply in the time available to us we were not able to detect it. Subsequently I understand the investigations which CFA has carried out effectively confirm that there is no regional groundwater extending under the site, and if there is any, it is at a great depth, so it would be unlikely to be affected by what goes on near the surface.

But in terms of the soil, certainly they found a range of contaminants, and what they did was related these to, firstly, the ecological criteria — that is, what is needed to protect the ecosystem — and then, secondly, what is needed to protect human health. In the case of PFOS, the levels found in one spot did exceed the health criteria for industrial land. This was an area which was located not far from the present PAD, and it was the result of a partial clean-up which took place early in the 1990s, so this was before the major change in the late 90s. There was a partial makeover of the area then. The old PAD, which was not surfaced, was dug up and the soil from that area, because it was contaminated very heavily with hydrocarbons, was landfarmed — in other words, you basically turned it over and over again and let it volatilise off. Then this area near the PAD was used as a dumping area for this, and when it was tested by an EPA auditor in accordance with procedures, the levels had been sufficiently lowered by the volatilisation process so that it was not an area of concern, but it still contains levels of PFOS that are marginally above the industrial land criteria.

The CHAIR — Sorry, Professor Joy; I am just concerned that we still have quite a bit to go. We want to ask a few questions. I mean, you can continue, but I was just worried.

Mr JOY — I would be happy simply to turn it over to you for questions, if that would help.

The CHAIR — Is there anything in particular that you would like to highlight in here? We can do it at the end; we could always go a bit longer.

Mr JOY — I think it is probably best to pick it up in your questions, Chair.

The CHAIR — Sure. As I said, it is very interesting. I know we have the report, and we have gone through that.

Mr JOY — I realise your time is limited.

Mr McCURDY — I am interested in how the EPA reacted to the environment at the time that you were involved at the EPA, in terms of its involvement. You said the Geelong office got a little involved as time went on. Just in terms of timing, when did that take place?

Mr JOY — This was a time of major change because it was a period in which, I guess, society and the regulators were becoming alert to the significant problems associated with contamination of land. The old BP refinery had closed down at Port Melbourne, and the areas there were discovered to be very heavily contaminated; they wound up being a very large cost to the government, effectively. About a year later you may recall that after houses were built on an old lead battery recycling site at Ardeer suddenly people started to realise — the regulator included — that there needed to be much, much better systems to find and regulate these sorts of sites. So contaminated land legislation was prepared and passed in 1990, and the EPA auditing system with accredited auditors was set up at around about that time.

The early 1990s was very much a period when contamination of land became a focus, and that started to alert people out at Fiskville to the fact that their storage practices had clearly led to contamination of areas like the drum storage area and areas around the PAD, the old foam pits. So contamination started to become a regulatory priority and started to at least appear on the register of those working at Fiskville.

Mr McCURDY — But it appears enforcement action was not high on the agenda of the EPA —

Mr JOY — I am sorry, could you say that again?

Mr McCURDY — Enforcement action was not a high priority of the EPA at the time.

Mr JOY — There were no actual breaches of the regulations as such because the regulations still were formative. It was not as though there was any major spill or incident which drew EPA's attention to those practices. As I said earlier, their involvement was really just concern over whether they were dumping putrescible materials into either of these old landfills. So they were looking there, whereas we now know that more concern should have been focused on the areas where things were stored. One of the difficulties there was a split between the dangerous goods branch and the EPA. The storage of the materials was basically controlled by the dangerous goods branch, and EPA tended to focus on other things. It would have been better had they cooperated more closely.

The CHAIR — That sort of problem continues today, doesn't it?

Mr JOY — Yes.

The CHAIR — In terms of the interviews that you did with various people, as I understand, there were CFA employees and volunteers, some of the residents and some of the board members. Was there anybody else? I could not quite work out whom you actually conducted interviews with.

Mr JOY — We conducted, I think, 325-odd interviews.

The CHAIR — Yes.

Mr JOY — And the great majority of those were people who responded to the advertisements which we had placed in the *Weekly Times* and other papers. Two-thirds or more — probably three-quarters — came to us; they volunteered. Very often during an interview somebody would mention, 'Joe Blow is worth talking to about this', so we would then pursue Joe Blow. So there was another cohort, most of whom were quite happy to talk to us once we got in touch. Then there were people whom we — —

The CHAIR — But were they CFA? I suppose my question was more about who they were: were they residents? Which category did the fall in?

Mr JOY — The vast bulk of them were CFA people who had either been instructors or had trained at Fiskville. In addition, there were people from industry who had trained there. There were a large number of people from industry. There were people from government departments. We were able to get in touch with quite a few of them. There were people from the local area who had lived there. One of the things, of course, is that it is not a densely settled area, so there are only a handful of people really within about a 5 or 6-kilometre area. So far as I am aware, we spoke to all of those people.

The CHAIR — Was that government departments that had used Fiskville as a training operation?

Mr JOY — Yes.

The CHAIR — The actual department itself, or people from the departments as individuals?

Mr JOY — I am just trying to think. The government departments were a small group, a very small group. For example, I do not believe we actually interviewed anyone specifically from the EPA who trained there. I am not sure there was anyone specifically from that group. Their training would have been so ephemeral. Unlike a volunteer from the CFA, who might have trained a dozen times at Fiskville, somebody from a government agency probably went once. There may well not have been training in relation to fire; it might have just been static training in relation to dangerous storage or something like that.

The CHAIR — What about people from the Metropolitan Fire Brigade? I understood that they did a lot of training. I think it only started in the 1990s. Did anyone who worked for them — —

Mr JOY — As far as I know, there were half a dozen or so people from MFB who responded to the ad, including a couple of people who had extensive knowledge of chemicals and told us some horror stories about what went on in the 1970s.

The CHAIR — So MFB training went as far back as the 1970s?

Mr JOY — I believe that one person was trained back in the 1970s, yes.

The CHAIR — Okay. Then you organised the categories of high, medium and low risk in your report — for example, you saw the residents as being in the low-risk category. I do not know if you have seen any of the information from the public hearings we had. There were the Lloyds, who were neighbours, who had high readings of PFOS in themselves and in their livestock, and there was soil contamination. I think there was also a man who had very rare testicular cancer. He went to the Fiskville Primary School, and he fished in the lake and all of that sort of stuff. Do you still stand by those categories, even in light of that sort of information?

Mr JOY — Yes, I do. Let us go through them. We interviewed teachers who taught at the school. The school was located to the east, which is not a prevailing wind direction.

The CHAIR — Yes, we went there yesterday to have a look at the — —

Mr JOY — There were high trees. The exposure of the students would have been very ephemeral. Occasionally the smoke would have blown in that direction and occasionally they would have been exposed, but in terms of long-term cumulative risk it is a trivial risk by comparison — and these are relative comparisons. This group by comparison with this group — it is not an absolute statement of risk. By comparison with the people who were working as instructors there, being exposed three or four times a day to the smoke, to the films and so on, the residents' risk was not trivial but very low.

The CHAIR — But it is possible that they could still have been — —

Mr JOY — Quite possible.

The CHAIR — If it is a comparative thing, everybody could actually be affected but some more than others.

Mr JOY — The point is that somebody might be unlucky enough to inhale something from one cloud that they happened to be exposed to, and it might trigger a cancer in 30 or 40 years time. That is very rare that that is going to happen. The whole approach we adopted had to be based upon looking broadly at people who were exposed and saying, 'Look at the exposure routes — through the skin, through breathing et cetera. Look at the materials that they are exposed to'. The PAD operators were exposed to one set of risks, the instructors to a different but related set of risks and then offsite is essentially, 'Well, how exposed would somebody at the school be relative to an instructor who worked there for several years or to a volunteer who trained a dozen times there?'

The CHAIR — I think some of the children at the school were saying they ate eels in the dam or they fished for eels. They might have swum in there. They went to the PAD to look. Would that put them into a higher risk category?

Mr JOY — Again the work Roger Drew has completed indicates that certainly they banned fishing and eating materials from there, but in terms of any significant risks that would push them into a higher category, either the equivalent of an instructor or a trainee, it is a very small quantity of material that has been taken in by comparison with years of material taken in by the instructors.

The other thing I think is worth emphasising here is that if you look at the training at Fiskville — setting the instructors aside for a moment — the exposure at Fiskville is probably a tiny fraction of the lifetime exposure of most of these volunteers to actual fires. The real risk to these people is the fires which they fight every day, every month, every year. That is why I think the presumptive legislation is so important. Victoria should move ahead rapidly and reflect what the commonwealth legislation has done for nearly 30 years now.

Fiskville itself, even for those people most exposed there, probably if they wind up with a cancer, it is impossible to separate that causatively from the many exposures they would have in real fire situations. That is the trouble with cancer. In very few places — unlike with asbestos and mesothelioma — it is relatively difficult to link even long-term exposure to specific outcomes. That is why the legislation is needed, because if every firefighter has to prove that his or her cancer is due to exposures over a 30-year period, then clearly it is going to wind up with the lawyers and then if it goes to court, they are going to be disappointed.

In terms of the risk categories, I stand by those, and I think that in terms of relative and comparative risk, it was really the only way to provide a useful basis on which the health studies could then proceed. One of the things I

have not mentioned is that I was assisted by a small advisory panel that I set up during the process. There were three people on it: Professor Ian Rae, who is an emeritus professor of chemicals at Melbourne University and an adviser to the UN on persistent organic pollutants in the environment, so very specifically relevant to this; Associate Professor Susanne Tepe, who is an occupational hygienist at RMIT, where I used to work; and a medico and lawyer, Heather — Heather's name has slipped my memory for a moment — who again was able to look at this approach and say, 'There are a dozen different ways you could approach it, but in terms of providing some sort of reasonable framework on which then to divide people up and look at the actual outcomes, this seems to work reasonably well'.

Mr McCURDY — So in broad terms, the high, medium and low risk is relative to the amount of time they have had exposure to chemicals, but would you acknowledge that even for someone in the low category, like the neighbours, because we do not know what was being burnt, even exposure once to those chemicals, those fumes, could have cancerous effects 20 years down the track?

Mr JOY — It is really possible, but I think very unlikely, because what we are talking about are basic products of combustion. Fires anywhere are going to generate these fine particles, which are dangerous because of their size, because they get breathed very deeply in. Hydrocarbon residues, PAHs and a whole host of things, which just about any fire to a greater or lesser extent will generate. A one-off exposure or even a once-a-month exposure to these things puts you in a significantly lower category than somebody who is actually breathing in the soot at the fire front and breathing in the mist from the fire water. It is orders of magnitude of difference, but that is not to suggest that there may not be rare cases where a single exposure produces that.

I worked on the Coode Island fires. I was there for two weeks following the fires, running the whole site for the clean-up. I was exposed to vapours there at probably unsafe levels for two weeks. I now have a long-term disease. Do I think it was caused by that? Almost certainly not, but who can tell? That is the trouble of trying to connect relatively limited exposures with health outcomes 20 years later. How many people smoked and did not smoke? How many people did dangerous things in other areas? If you worked on farms, and many of these people did, particularly the volunteers, they were mixing chemicals in buckets that they would not dream of doing now, so again it is fundamentally difficult to link. That is why I for one strongly support this approach of putting in a legislative basis to proceed on.

The CHAIR — In the recommendations — I do not know if I should read it out — in one of them you talk about there should be a bit of a look at the categories, so I understand you are standing by them, but what was the purpose of that? Do you want me to read it? Do you know which one I am talking about?

Mr JOY — I remember it. Basically it said to see how useful or look at the utility of this approach to the health studies. Once the report was in and accepted, I met again with the CFA and some of its advisers, and we went through that table, and basically I explained, as I have to you, how it was derived and supported by the panel. As far as I know that was then conveyed through the Cancer Council of Victoria for the first study. They utilised it, and Monash utilised it as well.

The CHAIR — My understanding is that they were the parameters of the terms of reference, if you like, of their study — to use those categories. Do you concur that that is the way they should have done it, or should they have looked more broadly and looked at those categories to see if they should have used them?

Mr McCURDY — Because Monash just used your framework. The Monash report used your framework without developing their own.

Mr JOY — So did the Cancer Council study, I think.

Mr McCURDY — Yes.

Mr JOY — As I say, part of the purpose of my work was to provide a frame of reference — a relative risk framework — for those studies. I read with interest the submission from — I cannot remember the gentleman's name — a doctor from Ballarat, who unfortunately is ill himself.

The CHAIR — Was he a medical doctor?

Mr JOY — No, I think it was a PhD.

The CHAIR — Was it Dr Ferrier?

Mr JOY — Yes, I have his submission here somewhere. He suggested a whole range of other approaches to this, most of which I think were tending to focus on looking at individuals far more as individuals and at individual health outcomes. That is a fine approach, but it would not have worked in terms of generating useful medical studies.

The CHAIR — But what about the Lloyds on the farm next door, where they had hundreds of times the recommended PFOS levels in one of their children, in themselves and in their livestock. They would have been in the low-risk category.

Mr JOY — Yes, that is right.

The CHAIR — Is that because you think the PFOS is not going to hurt them? Obviously there was high exposure for them.

Mr JOY — Concerns over PFOS are largely at this stage still based on animal studies; it is difficult to move beyond that. US EPA is currently reviewing, through peer review, their drinking water standards, which is currently down at 0.2 micrograms per litre for PFOS, 0.4 for PFOA. The work which was done with that family I understood looked at soil, muscle tissue and blood from the sheep or cattle — I think it was sheep — —

The CHAIR — It was sheep.

Mr JOY — and from the people themselves. While I have not read the report which Dr Drew has prepared on it, I understand his conclusions — and he is one of the leading Australian toxicologists — are that the levels in the meat do not provide a basis for concern. In other words, the meat could be sold on and utilised in the market without any concern. As far as I am aware, a similar conclusion — not that you could market the meat, but a similar conclusion — about no obvious adverse impact on health applies to the people themselves. Trace elements — —

The CHAIR — But it does show a high level of exposure to the chemical or toxin.

Mr JOY — I would not necessarily say it was a high level of exposure. They were exposed to a degree that it can raise the levels in their blood, but, as I say, everybody has these. I am not aware of what the levels were exactly, but even if they were high, again that does not necessarily lead to a health outcome. It may well be that there are individuals around who should shift from one group to the next. That is quite possible, but that does not affect the nature of the analysis. You hope that in 20 years time none of those neighbours have developed a cancer, but if they do — —

The CHAIR — Of course, or any other illness.

Mr JOY — If they do, then how does one link it? One can only start to link it when you get groups large enough to draw some statistically reliable conclusions, which is what both of the medical studies have done. To take the Monash study, for example, they tended to reaffirm what the Cancer Council found: that when you compare the high-risk group with the medium-risk group, you start to see emerging some statistically significant evidence of an increase in risk. But even there it depends to a degree on which population you relate it to — whether you relate it to the total population or the Australian-born population.

The CHAIR — Why did they ban the use of that type of foam, if that is the case and we do not think we know anything?

Mr JOY — For the same reason that the UN has been campaigning for so many years and has successfully banned some 18 other persistent organic pollutants — because they accumulate in the environment, because they are accumulating in either fat or other tissues, and they biomagnify. The problem is that they are not so much just a threat to human life but a threat to other animals in the environment. A precautionary approach indicates that you would not, in a fit, use foams of this sort now in the way in which they were used during the 1980s and 1990s. Remember these materials are also essential elements in Teflon coating and in fire suppression in carpets. There are dozens and dozens of products that are used every day where these things crop up in their manufacturing. The evidence for human health effects, to see if there is firm evidence, largely comes from very high levels of exposure in manufacturing plants and adjacent to manufacturing plants.

Mr McCURDY — Did you get any information from the CFA regarding any of the risks at the time or information about people who were living near Fiskville? Was there any contribution from the CFA, or did you just basically start from scratch and work your way up?

Mr JOY — We talked to the CFA about who their neighbours were. We asked them if they had had reports from their neighbours and then went direct to the neighbours. As I say, there were only a handful. With one neighbour obviously there are very bad relations and have been for some years. We do not comment one way or the other on that. I gather that the most recent problems have arisen because somebody has decided to build a dwelling there, as they are entitled to do. Now of course they are living there — well, they were until they moved out. They are certainly much more exposed than they previously would have been. One of the reasons Fiskville was chosen as the location was that it is cold, it is bleak and not many people live nearby, fortunately.

Mr McCURDY — In hindsight, should the local council have reduced the opportunity for people to build in that region, do you think?

Mr JOY — As far as I am aware, it is only this one house which has recently been erected that has resulted in a problem. It may well be that had the building envelope been shifted it would have been better. But this house, I understand, is not only right up against the boundary with Fiskville, it is downwind of the prevailing winds. If it is going to blow, it will blow there.

The CHAIR — I want to go back a little bit to the 1999 cut-off point. You were talking about the study of the use of chemicals, where they were stored and all that sort of stuff, and you said that from 1999 that had changed a little bit and they had done — —

Mr JOY — No; the changes started earlier.

The CHAIR — Okay. But in terms of that cut-off point, when you say the risk is greater post-1999, with the studies of the water and the recent study that shows there are still high levels of contamination in areas that were then unknown, why would you not think it was important to continue the study up to the present day? People are still there. They are still staying there. They are still fighting fires there. They are still using the water, whether it is for putting the fires out, for drinking or for washing. Why do you not see that as a risk as well?

Mr JOY — As you may recall, the study was very much triggered by Brian Potter's raising of the issues of chemical usage and fire training practices with the *Herald Sun* in December 2011.

The CHAIR — Yes, and contamination.

Mr JOY — The focus was very much then on the use of unknown chemicals, unsafe practices and unsafe infrastructure, and very much the focus was the 1970s and 1980s right from the start.

The CHAIR — So more in response to that media barrage, or whatever you want to call it.

Mr JOY — Within that context, the cut-off was based on when was the final major change made to the infrastructure, so that you did not have to worry about one set of things, and when were the changes made to the unknown fuels, which were of most concern, and that basically was when the drums stopped, probably in the late 80s/early 90s.

The CHAIR — It was a very reactive approach then by the CFA, rather than wanting to know — —

Mr JOY — It was saying, 'What are the problems that have been raised? In the first phase, when were those problems addressed — a first approximation of when they were addressed?'. The early 90s was the first go at the rehabilitation of the PAD, and then in the late 90s the whole thing was done over and changed considerably. I remember because we were just finishing the report at the stage the initial concerns were raised over possible contamination of the fire water system. We were just writing the final dots of i's and so on, so certainly at that stage I had looked at it with some interest and I have followed it since then. In terms of including it in the initial study, it really only applied to one medium, and it applied to the period after which the worst transgressions had long since ceased.

In relation to the fire water story, I have gone back over it since then and looked at the results that have caused concern. I am not particularly concerned about those except the PFOS results. In other words, as far as I recall

the concerns that were raised in July and August of 2012 and following related to concerns over possible bacterial contamination, faecal contamination.

The CHAIR — In the dams?

Mr JOY — Coming from the dams and into the actual firefighting water supply, so there were those concerns raised. When I had a look at the results, they looked at it in a variety of ways, so either in relation to E. coli, enterococci or total coliforms, and even on the very few occasions where there were higher figures, those figures were in the 200s or 300s as opposed to the standard, which I think for enterococci and total coliforms was 100. In raw sewage you are dealing with millions and tens of millions, so in other words these are undesirable levels but if that sort of level was down at Brighton Beach in the summer, the EPA would go back and resample it before it would close the beach. So I do not see it as particularly hazardous. In relation to the bacteria, I was not concerned.

In relation to the one other area in which the levels that were set in the standards were exceeded, it was suspended solids. Suspended solids are basically fine particles which are in suspension. These are mainly there for a number of reasons: because they can affect the efficiency of a treatment facility and because they make the water look dirty — aesthetic problem, not relevant to human health at all despite the jumping up and down that some people made at the time.

The CHAIR — So the CFA board recommended the closure of Fiskville because of testing. As yet I do not think the results are a public document. But the test: I think it was around PFOS in areas that had no longer —

Mr JOY — The most recent testing?

The CHAIR — Yes.

Mr JOY — I think everybody was surprised because the CFA had moved over to town water supply for firefighting. As I understand it, they had installed two new large tanks and then from those tanks they plumbed the town water supply — town water into the system. But it is a system that has been carrying the fire water since the PAD was refurbished in the late 1990s, so in other words it has been carrying water which has been recycled initially from the dams. So PFOS was present in that water, no doubt at all.

I have only seen the report of the outliers, which was 50 micrograms per litre, and I understand that this is in two dead-end sections of the system — one near the university facility and one near the airport. In other words, these are, if you like, backwaters in the system. What I think has happened is that over many years probably fine particles — so PFOS absorbed onto the surface of fine particles, mineral particles — in these backwater areas have tended to build up, which is why you have got such relatively high levels of 50 there. I have not actually seen the — —

The CHAIR — In your submission you were saying that Fiskville should not have closed. Based on that, do you still believe that the place did not need to close?

Mr JOY — I do not believe it needed to close. I have not seen the full set of data so I qualify my point on that. But if in fact the distribution looked something like this, where this is high and this is low and it sort of goes like that, and we are looking at 50 up there and then down here we are looking at 20s, 30s or something like that, the standard is a drinking water standard. It is based on consumption of 2 litres of water every day — day in, day out. Frankly, the exposure pathways do not lead me to believe that any firefighter, even an instructor working there full time, would come anywhere near that level of exposure.

I am not saying, 'Disregard it'; what I am saying is, 'Do not shut down what you have already put in' — several million dollars to improving it — because so many other things have been set up now that make it one of the best firefighting training facilities in the country.

Mr McCURDY — So that could be an overreaction to what could be resolved or solved in certain parts of it. It is not the whole area that is under concern; there are small areas that could still be addressed.

Mr JOY — I think it is a specific issue of residual contamination in the firefighting system, so that will continue to show up probably for years because this stuff is probably impregnating seals in the pipe system and

flanges in the pumps. It will continue to bleed out for decades. But I would argue that those levels are very conservatively set — they are based on people drinking it and drinking quite a lot of it. What I would personally have preferred to see happen was a detailed investigation of probable sources — if I am right about it coming from places like seals and residual mineral contamination — before you closed down such a valuable facility, because this facility saves lives. That is what it is there for: to train people so that they do not lose their life in firefighting.

Millions of taxpayer dollars have been spent on it in the last several years. A clean-up of the soils has taken place where it needs to. I do not think there are any significant risks associated with the soils. I think the work done off-site has confirmed that those ephemeral streams that drain off to the south do not pose any threat to human health or the environment — given the low levels — so what we are left with is a residual concern which I think could be dealt with through another investigation rather than just saying, ‘Bang, let’s draw the line and close it down’ — and presumably spending \$10 million or \$15 million minimum setting up a facility somewhere else.

The CHAIR — Leading on from there, one of things you did during your investigation and report was to give some interviewees a map, and you would say, ‘Talk about where the drums are buried’.

Mr JOY — Yes, the great drum story.

The CHAIR — Yes, the ongoing drum story. I know you said these were where you thought some were, but based on that do you think there is further unknown contamination? Based on people giving you maps and not being sure, are they distributed all over those maps or just in certain areas?

Mr JOY — I thought I had got the drum story worked out, and I was quite wrong. They dug where I thought they were, going on the reports which we had and cross-referencing — —

The CHAIR — Based on the maps from the interviews?

Mr JOY — Basically taking some people out onto the site and them actually saying — while the site had changed in terms of configuration — ‘I’m pretty sure that I dug the hole over there because it is near that big tree there or near that over there’. So we tried to triangulate in on where places would be.

Let us just very briefly summarise the drum story. During the 1970s and early 1980s, once the drums of stuff had been emptied and used the drums were generally crushed and then taken out to one of the two landfills at the back of the property and buried. We know that some of the drums were buried there.

The CHAIR — And they were along the border of the neighbours’ properties?

Mr JOY — That is right. They were along the western border where it adjoins the southern border. As part of the work following up the recommendations from our work, those landfills have been thoroughly sampled — any evidence of crushed drums still there. Any harmful material would have volatilised off decades ago, so what you are left with is basically a very rusty old drum — —

Mr McCURDY — That is right. Because they were basically empty drums that had been crushed. It is not as though they were drums — —

Mr JOY — Yes. There would have been residue at the time, no doubt, but it has long since volatilised off or leached into the soil. Apart from that, there were reports, which we managed to get through the interviews, of various mass burials of drums in various places. From memory there were about three reported. We know that in at least two cases drums were dug up and then transported away under EPA transport certificates and properly dealt with through the waste disposal industry. Some hundreds of drums were disposed of in that way. One lot was done in the 1980s, and the other lot was from the early 2000s, when the bulldozer driver happened to rip them up.

Those drums in 2000 certainly still had liquid and vapour which vaporised off because the driver was covered in the stuff and was taken ill at the time. Again, they make them tough out there. He did not want to go to the doctor. He just pushed off and nobody can even remember his name. He may have died 10 years later. We just do not know. But what came out of that was that the drums that he had dug up or found were then taken away and safely disposed of. We were left with the drums which were buried following the fire where Alan Bennett

was affected, and we never did track those down. So, yes, in answer to your question, almost certainly in one, two or maybe three places there will be some trenches out there, probably buried 1 metre or 2 metres deep, where there will be some old rusty drums. Again, the material in them will have volatilised off or will have leached into the soil, and it will be quite harmless at present. The main danger will be cutting yourself on — —

The CHAIR — The drums. But what about the soil that the chemicals has leached into. You say that will have all gone away?

Mr JOY — Most of these things are highly volatile, so most of it will gassed off, and the residue after decades — because the Bennett fire was 33 years ago — will have broken down and come down to the soil particles. Certainly you would not want someone to dig them up and let kids play in the area, but if somebody does come across drums when they are digging a trench or putting in some infrastructure, as I understand it the protocol is to immediately alert management. What would happen then is that the EPA would be called in, they would dig them up, they would be safely handled, they would be taken off and, presumably if there were any residue of concern, that would be treated in an appropriate facility. But probably they would just go off for recycling, assuming there is enough metal there to warrant it.

In terms of buried drums, we did not get to the bottom of it, but I am very confident that after all these years, even though there may well be some hundreds of drums buried out there, they do not propose any threat of any significance to anyone using the site.

Mr McCURDY — Can we move to the investigation? There is a part I do not understand. The interviewers you used — you spoke about Danny Maloney, the assistant commissioner — —

Mr JOY — Danny Maloney, yes.

Mr McCURDY — He was obviously very high up. You said there were some 30 or 40 other people involved with the report. Why such a high level in terms of Danny Maloney and in terms of the way he would interview witnesses?

Mr JOY — Danny was useful to us in many ways, but he was particularly useful in being able to draw into the investigation colleagues of his who had retired from the police force and who had been involved in interviewing people in very difficult and traumatic situations — rape victims and things like this. We knew that many of the people we would be speaking to were old and ill and their family members were desperately worried about them, and we were asking them to go back over events that some of them found very difficult indeed. Danny was particularly alert to this and was able to bring into the team people who had retired from the police force and who had a lot of experience of dealing with people in these sorts of situations.

Apart from that, he was a top crime investigator in the state of some 30 years, so he knew how to go about investigations, whereas I am an ex-scientist and an ex-administrator. His knowledge of that was fundamental, and also of process — making sure that things that had to be quarantined were quarantined and making sure that all of the firewalls that separated our IT system from the CFA and all of the other separations from CFA were thoroughly robust and in place. He, along with Jennifer Wolcott, one of the senior staff, really did take the governance issues, as I did, very seriously. They were a tremendous help to me in that area.

Mr McCURDY — Why were the transcripts held by a private law firm?

Mr JOY — They were held by a private law firm to ensure that people who gave us that information had confidence that the CFA could not have access to it or that if the CFA needed access to it, they could go through me since I effectively still hold the key to that. Because we wanted to — —

Mr McCURDY — Why would you be concerned about that?

Mr JOY — Because in order to get quite a lot of these people to agree to talk to us, some of whom are currently serving with the CFA, we had to be able to give them a very high level of assurance that when we had finished, the documents would not simply be handed over to the CFA to go through. I think there is a bit of paranoia here, but we wanted to be able to reassure them that whatever they said to us would remain in confidence, not just during the investigation but after the investigation.

The CHAIR — Just on that, you mentioned paranoia. It strikes me that there are so many public and private submissions. People seem really concerned about this. They do not want the CFA to know. It seems that too many people have this view. With your knowledge of the CFA, why do they think this? There must be something somewhere that gives this fear to them.

Mr JOY — There is a great deal of anger and a great deal of fear amongst many of these people, particularly the older people who had worked there in the 70s and the 80s and knew they had been exposed. There is no doubt they had been exposed to a whole range of chemicals. They did not know what they were. Now it is being raised, and they read in the *Herald Sun* — probably for the first time, because they may not have been in touch with their old colleagues — that there are X number of cancers amongst this population. A lot of them were angry probably not with the CFA current management, because after all the current management had not been there then; they were angry with the CFA as an institution, which had let them be exposed. That was a very real feeling amongst many of the people there, and quite understandable too.

It is interesting with Brian Potter. I have enormous respect for Brian. I interviewed him. He is a tower of a man. He was so honest that he acknowledged that he was one of the key people. During the 1980s in particular he had risen to the senior ranks. When he was at Fiskville he had raised some concerns about the possibility of PCB waste having been in some of these drums that were coming in. He wrote off to head office and basically did not hear anything back. When he got to head office himself he acknowledged that ideally he would have gone back and pursued it himself, but there were other things to do.

This is why I think looking for guilty parties is probably not necessarily very helpful because some of the people who were most affected later on went on to be in a position where ideally they would have taken more concern over Fiskville.

The CHAIR — In terms of the report and it being independent: this is of course the question, because the CFA asked you to do it. It was considered an independent report. Are you saying that the CFA did not have access to copies of individuals interviews?

Mr JOY — No.

The CHAIR — Or they had copies but without their names?

Mr JOY — No, they had nothing at all.

The CHAIR — No access at all?

Mr JOY — No, none of our documentation apart from things which I signed off by way of updates for the CEO. I briefed the board twice, I think, and a third time finally. Nothing else flowed to the CFA. We had our own area, which was locked. We had our own keys. They had no keys to it. They could not gain access to it. All of the info systems were quarantined.

The CHAIR — And the report itself: did you release the report or did the CFA release the report to the public?

Mr JOY — The report all along was going to be a report by me to the CFA board. The board eventually released it, certainly without any attempt to bury or change anything.

I will just mention one thing in the presentation we looked at earlier that would be worth briefly picking up on again, because the report itself does list a number of key limitations which are worth noting. I am now back on the bottom of the second page, under the heading 'Key limitations'. I certainly have not listed 'lack of independence', although lack of independence was certainly one of the things which was suggested early on. But there were other limitations that I think it is important we do note — for example, we had no ability to compel people to talk to us. We were very much dependent upon people volunteering, and fortunately they did in very large numbers.

We should note that had it been a coronial investigation or something like that, then people could have been forced to talk to us. But nobody basically said, 'No, we won't talk to you', including previous CEOs. For example, Neil Foster was willing to talk to us even though some of the concerns over lack of response may have fallen during his period. He was still quite prepared to talk with us openly. But it is a limitation.

Initially we had three months in which to do it. It was pretty clear after about a month that that was not going to be enough time. Ideally we would have had about another three months, but we got six months in total. I think we were hitting the level of diminishing returns very hard then. We could have gone and surveyed another 10 000 documents, but I do not think that would have added any great light to the process. But we need to acknowledge that it is a limitation. The scale and complexity of the document search — we looked at 20 000 or 30 000 documents, 8000 in detail. There were millions. But again, it was very much a case of diminishing returns. The interview program itself was very big and difficult to coordinate, and it dealt with a lot of individuals who were quite badly traumatised in some cases.

The CHAIR — How did the investigation come to be? The CFA approached you and asked if you would investigate up until 1999, and then what was the arrangement? What were the protocols or what was the governance around it?

Mr JOY — Obviously it was set up in quite a hurry because the CFA was understandably concerned to be saying, ‘This looks terrible. We need to ensure that something happens’. You could have argued that maybe it should have been left and somebody else outside of the CFA should have initiated the study, but you probably would have lost a month and a half if that had happened. I had known Mick Bourke. I had worked with Mick as his deputy for about 18 months. As I pointed out to Peter Marshall when I met with him: ‘I don’t owe Mick anything’. Mick has no hold over me; I respect him, but I am not in any way indebted to him. My own reputation is important to me. It will be totally independent. Mick called me. Initially I said — —

The CHAIR — Can I just say that we are asking you this question not because we are accusing you of anything; it is just good to get on the record how it worked.

Mr JOY — An interview was set up admittedly in somewhat of a hurry. The terms of reference were drafted by the CFA. They came to me. I amended them and sent them back to the CFA. They fiddled with them a bit. They came back to me, and I tweaked them a bit more. Had I had more time I would have reordered them. In fact in the report I actually deal with them in a different order from the one in which they were given to me. Essentially the terms of reference were references that I was satisfied with. Effectively I was responsible for all of them, not the CFA.

In terms of setting up the team, initially they provided me with an officer who had been at Fiskville for many years and was in fact the chief whistleblower during the 1990s — a guy named David Clancy. He helped me, along with an admin person, start the core of the team. Thereafter we developed from there, so by the end of January I suppose we had a dozen people, by the end of February we had about 30 and at its height about 40.

Mr McCURDY — How do you respond to the criticism of people saying, ‘There’s a conflict of interest between you and Mick Bourke’?

Mr JOY — I do not believe that there is because, as I say, there would be a conflict of interest if in any way I was beholden to him. We worked together; that is all. The other thing that I think is important to realise here is that Mick has been in charge there for about four and a half years. It was clear that this focus, as raised by the *Herald Sun*, was an historic focus; it was not about what was happening at the time. That came out later and certainly became a centre of concern later, but it was never part of our brief. So in terms of Mick’s involvement, he was not involved with any of the events that we cover in the report.

Those are some of the limitations, along with the lack of formal documentation and things of that sort and the difficulty for any witness 30 or 40 years after the event to really recall things in detail. We need to be aware of those limitations, but I do not think they really undermine any of the basic conclusions that we reached.

The CHAIR — One of the other things that we understood is that Fiskville was doing training for outside organisations. It was sort of an income generation program. I think the Brian Potter interview was that that money did not go to Fiskville; it went to head office or HQ or whatever he called it.

Mr JOY — I really do not recall.

The CHAIR — One of the things in terms of what people knew and who organised the outside organisations to come in — we say that head office did not really know what was going on in Fiskville, yet perhaps there is this connection about who organised organisations to go there and train and pay for the training.

Mr JOY — My impression is that the basic organisation was done at the Fiskville level. Head office would have been aware that, for example, the Shell refinery every year went along to Fiskville for training. If there was money from it, again I am not sure how that was eventually used. Very often what happened was that the guys coming along to train would bring with them more of the flammable material than they needed so they could leave the rest as a gift, so in some cases money may not have even changed hands. I do not know.

The CHAIR — You have just reminded me that one of the witnesses who came on the first day, I think, of the public hearings — I forget his name — was a local electrician at the plant. He was saying that he had also worked at chemical companies and he would not dream of operating the way they did at Fiskville in a chemical company at that time in terms of safety.

Mr JOY — What period was he talking about?

The CHAIR — I think it was around about the early 1980s.

Mr JOY — That is interesting. Again, there was a lot of varied practice out in industry. Given where Fiskville was still in the 80s, many of them probably would have been advanced. Again, part of it comes back to this macho culture which certainly permeated the place, and to a degree it perhaps still does. It is an ethos of firefighting — ‘We are tough. We get on with it’. It is not desirable, but it is certainly true.

Mr McCURDY — This is a pointed question, but do you believe you were appointed to find out the goings-on that went on at Fiskville, or was it to try to deflect attention away from the CFA?

Mr JOY — The former. If it had been the latter, I would not have done it. There was no hint of that, no hint of that at all.

Mr McCURDY — The reason why I say that is that I come back to those police investigations again, and when you read some of the transcripts of the police investigations it is more like they are interviewing suspects and trying to apportion blame —

Mr JOY — I see what you mean.

Mr McCURDY — to the Brian Potters of the world and deflect attention away from the inadequacies of the CFA.

Mr JOY — I understand what you are getting at. I sat in on a number of interviews myself, and I also talked with the interview teams. No, they were selected certainly not to apply an adversarial approach — quite the opposite; it was a very supportive approach. I have read many of the transcripts and listened to the tapes. At any stage people could pause, stop the tape and go and have a cry if they needed to; the interviewers sometimes did as well. There was absolutely no hint of that approach. Despite what I have said about an investigative approach, it was really a matter of understanding how to talk to people to get them to free up and to talk to you as openly as they possibly could. There was absolutely no hint of that.

The CHAIR — So the lawyers who have been used to hold documents do not represent the CFA in other matters?

Mr JOY — No, not as far as I am aware. As I say, they need advice from me before they can do anything with those documents. For example, if your committee were interested in approaching people who were interviewed, the first thing I would have to do is get the lawyers to communicate with the people who made submissions to find out whether they were prepared to release their names to the committee. That is the level of confidentiality that applies. I would be happy to do that if you wished.

The CHAIR — Yes, I guess that would be good if you could do that. They have not approached you? I know there has been some discussion. In terms of the Brian Potter interview, that is a public document that was provided by Mr Potter.

Mr JOY — I think what would be needed would be for the committee to write to me saying that it would find it helpful to be able to talk to some of the people who we interviewed. On that basis I could then approach the legal firm and say, ‘Please send a formal letter to all of these people asking if they are willing to have their

details — not the interview report, just their name and a contact — released to the committee’, and then you could get in touch with them if you wished.

The CHAIR — Okay, but not the interview itself?

Mr JOY — I think you would then need to get in touch with the person and ask if they are ready to do that. There is a huge amount of information there.

The CHAIR — Yes. That would be really interesting.

Mr JOY — We spent three months going through it. It was no small task.

Mr McCURDY — Did you conduct many of the interviews yourself, or were most of them done by — —

Mr JOY — Most of them were done by members of the team. The interviews on average lasted maybe 3 or 4 hours. Some lasted 12 hours in more than one bite. That happened with Alan Bennett. He was one of a dozen or so that I did. Brian Potter is one I did. With Alan Bennett the first interview was maybe about 6 hours and we came back and had another 4 hours, so I was exposed by no means as much as the interviewers were but enough to get the feeling of just how concerned these people were.

The CHAIR — Has there been any discussion with the CFA about support for those people?

Mr JOY — Yes. They have set up a major structure for any of these people who have had concerns. This was set up at about the same time we started our work. Anybody who had a concern — past or present, CFA volunteer or permanent employee — could contact this independent number. It set up an independent structure to provide some assistance to them.

The CHAIR — I think people can get one health check a year — that is the system, isn’t it? But in terms of compensation or anything — —

Mr JOY — In terms of compensation, that would be triggered by specific legal action on the part of an individual. While I was not party to the detail, my understanding is that the CFA very early on in the piece set up what amounted to an independently operated helpline with counsellors and people like that who could advise people who felt that their health had been impacted and take details. You would need to talk to the CFA about the exact details on that, but I was impressed by the speed with which they did that and the fact that they cast their net as wide as they could so that anyone who did have concerns could get some independent advice.

Mr McCURDY — I am just about exhausted in terms of the questions. Knowing what you know now, would you change any of the recommendations that you have made, looking back in hindsight?

Mr JOY — No. I might have gone into some more detail, but I decided that probably the recommendations should really be halfway points, if you like, because most of the recommendations were saying, ‘We found out this, but we still do not know this. You ought to go ahead and do this and this and this so that you understand this part of it’.

If you look at the report by Kieran Walshe, the independent auditor on their actual carrying out of the recommendations, in addition to the 10 or so recommendations in my report, they initiated as follow-ons from those several dozen actions which would give effect to the recommendations which I put in place but also went beyond that in terms of the board governance and the establishment of an environment and health committee. I believe they restructured things so that Fiskville and all the training is now reporting to a single director-level person at head office. They have done a broad range of things which really lay beyond my remit and which I think effectively complemented things which we were saying.

Nothing stands out to me to which I would say, ‘In light of this, do something different’. Had we been asked to continue for another, say, three months or so, I think at that stage I would have been saying to the board, ‘Given these concerns over residual contamination in the firefighter fire water system, do you want to consider giving us an additional term of reference to provide you with advice on that?’. But, as I say, the timing was such that that was not possible. It would not have been worth delaying the main report to do that, because too many people were hanging on what that report would say.

Mr McCURDY — Is there anything that you would see that our inquiry should follow up further then, where your report was not given a terms of reference for? Is there anything that we should pursue in hindsight?

Mr JOY — I think it would be good to follow up to see that there is an agreement through the CFA — I would suggest bringing in the health department — to take up on Monash's suggestions for continuing study. In other words, as the cohorts age more people will show up with cancer who were trained at the facility. I think it would be valuable in, say, five years time to redo the Monash study with an enlarged cohort to see whether there are any trends showing up at that stage which were only marginally statistically significant in showing up in their current report. I think that would be one thing.

It depends a great deal. If the facility is going to be closed down, then go down one path. If that could be reconsidered, I would very strongly advise getting advice technically on the nature of the fire water reticulation system, where residual areas of it may have relatively high levels of PFOS and what the sources of those are. I am pretty sure they will be historic and limited, because PFOS has not been used for the past eight years there, but it will be there for the next century, so it may well be to give people a high level of insurance. I emphasise I am not a toxicologist. This is effectively my lay opinion based on 15 or 20 years experience in this sort of field. Given the drinking water basis of those levels, I doubt that they pose a threat to people.

Clearly that has to be resolved, so one of the things I would hope would come out of this would be at least a reconsideration of examining that and seeing what the sources are and can it be properly cleaned up, because there is such a valuable resource there which otherwise will not be available to the firefighting community.

The CHAIR — Thank you so much for your time today and for being so honest and open.

Mr McCURDY — We do appreciate that, Robert. You have been going at it for about an hour and a half now, so we do appreciate it.

Mr JOY — Thank you very much, and thank you once again for going out of your way to hear from me. I really do appreciate that greatly. I regret that I was not able to go to Melbourne, but that was the way it was at the time.

Mr McCURDY — That is fine. It gave us an opportunity to explore Launceston again.

Mr JOY — That is good. I hope you thoroughly enjoy its delights. It has warmed up a bit out there now.

The CHAIR — At least it is a blue sky.

Committee adjourned.