

REPORT OF PROCEEDINGS BEFORE

JOINT SELECT COMMITTEE ON THE

TRANSPORTATION AND STORAGE OF

NUCLEAR WASTE

At Sydney on Friday, 19 September 2003

The Committee met at 9.30 a.m.

PRESENT

The Hon. P. T. Primrose (Chair)

Legislative Council

The Hon. I. Cohen
The Hon. C. J. S. Lynn

Legislative Assembly

Mr M. J. Brown
Ms V. Judge
Mr A. M. McGrane
Mr I. L. Slack-Smith

CHAIR: I welcome members, witnesses and the public to this public hearing of the Joint Select Committee on the transportation and storage of nuclear waste. The procedures are formal public hearings and as such form a part of the functions of Parliament. The Committee is here to discuss with witnesses issues arising from their submissions and other related matters. An important feature of this is that the hearings are, as much as possible, open to the public. Once again I welcome everyone for your attendance and I declare the meeting open.

JAMES COURTNEY, Campaigner for Greenpeace, Level 4, 39 Liverpool Street, Sydney, sworn and examined:

CHAIR: We have received a submission from your organisation. Is it your wish that the submission be included as part of your sworn evidence?

Mr COURTNEY: Yes, it is.

CHAIR: Do you wish to briefly add to or elaborate upon it?

Mr COURTNEY: Yes, I would like to make a short statement.

CHAIR: Please proceed.

Mr COURTNEY: Thank you, Chair, thank you Committee. First of all, I would like to bring the Committee's attention to some developments at a Federal Government level which have particular significance to this inquiry. There is a set of amendments that are being proposed to the Non-Proliferation Legislation and Safeguards Act. It is known as the Non-Proliferation Legislation Amendment Bill 2003. These amendments have far-reaching ramifications for a Committee such as this that is attempting to investigate issues relating to the transport and storage of radioactive materials, or in fact virtually any associated activities that may be conducted by ANSTO in New South Wales, or in fact anywhere in Australia. I would like to call the Committee's attention particularly to one section of these amendments, section 26A:

Communication prejudicing security of nuclear material or associated item

- (1) a person commits an offence if:
- (a) the person communicates information to someone else; and
 - (b) the communication could prejudice the physical security of nuclear material, or an associated item, to which Part II applies.

I would like to point out that this condition also affects ARPANSA. ARPANSA will be prohibited from communicating information that could be said to compromise physical security of nuclear materials. That includes radioactive waste; it particularly includes spent nuclear fuel; but this is a very broad-reaching amendment that could effectively silence discussion on all things radioactive in the State, which would cover spent fuel, radioisotopes, reactive components, elements of construction and so on.

There are several issues that this Parliament should be informed of and the Committee should be considering in relation to the activities of ANSTO and the transportation of radioactive materials. I would like to bring your attention, as an example, to one company. There is a company operating at Lucas Heights known as Silex. This company is conducting research into using lasers for the enrichment of uranium. I would like to point out to the Committee that under

the ARPANSA Act it is illegal to operate or construct a uranium enrichment facility in Australia. Details of this research are secret because of the sensitive nature of the research and details are classified and protected by an agreement between the Federal Government and the United States Government. Greenpeace has serious concerns about the operations of Silex. To give this Committee one example, we suspect that Silex have already imported into this country 15 kilograms of uranium hexafluoride for use in their operations and we suspect that that material was flown in through Mascot airport. We are aware that Silex has a licence to import 35 kilograms of uranium hexafluoride - that is an open licence - but we are not sure whether that transport has occurred yet or is intended to occur.

The development of technology such as this has far-reaching implications in relation to nuclear non-proliferation. It raises serious issues of security which should be considered by this Committee. Conducting secret research with military applications in a facility that we are told is mainly for medical research and production of isotopes is not uncommon. This statement is also made by many countries suspected of conducting covert weapons programs. The Federal Government in fact took us to war in Iraq using the argument that we had to stop that country from developing just the sort of technology that Silex is developing at Lucas Heights. Now the Federal Government is taking an increasingly dominant position in applying pressure on Iran to curb its nuclear program, which Iran also claims is for the production of radioisotopes and energy and does not involve weapons research and development. It is becoming increasingly apparent that the Australian involvement in the war on terror has increased the threat of terrorism in this country. This raises increasing concerns in relation to the decision to construct the replacement research reactor at Lucas Heights.

Greenpeace urges this Committee to obtain the document that details the radioactive consequence of an accident or an attack at Lucas Heights. This document has been suppressed by the Federal regulator and we think that it is critical that New South Wales Parliament, if it is considering emergency planning and the threat posed by the transportation of radioactive materials or the operations of Lucas Heights, should be obtaining a copy of that report.

An ex-government insider and senior adviser to Science Minister, Peter McGauran, has stated publicly that Lucas Heights is a quasi-military facility. The level of secrecy surrounding ANSTO and its activities, including the storage and transportation of waste, poses a real and significant threat to the health of the people of Sydney and a threat to the natural environment. Greenpeace believes that if there was absolute openness and accountability by ANSTO and the Federal Government in relation to the activities of the Australian Nuclear Sites and Technology Organisation and the associated risks inherent with the operations of the Lucas Heights facility it would come to the same conclusion as Greenpeace, that the high-flux reactor should be immediately closed, construction of the replacement research reactor should cease and that ANSTO should be developed into a cutting edge modern scientific facility investigating

non-nuclear methods for the production of radioisotopes and developing real waste management solutions.

The Hon. CHARLIE LYNN: Are you suggesting that the Federal Government has a hidden agenda to produce nuclear weapons?

Mr COURTNEY: I believe, as many commentators do, that the Federal Government at least wants to maintain a technical capability. The research being conducted by Silex is highly classified. Any country that has been conducting laser research has kept the details of that research absolutely secret. We have no way of knowing exactly what applications they are developing in secret. Publicly they are saying that they want to enrich uranium for power reactors. Enriching uranium is illegal in this country. The construction of a power reactor is illegal in this country. You have to ask the question: Why is Silex conducting this research with an incredible level of support from the Federal Government? The Federal Government is going so far as to suggest that this research poses a proliferation threat and it was cited, as the Department of Foreign Affairs and Trade, as one of the reasons why they are needing to make these amendments to the Nuclear Non-Proliferation Safeguards Act.

The Hon. CHARLIE LYNN: You speak about public perceptions of fear I think. If we are talking about the transport of low level waste from Lucas Heights to wherever, it is pretty hard to motivate public fear, because we are talking about rubber gloves, tissues and things that have been contaminated, so I guess the public would be fairly apathetic about that and we have been told that it is less hazardous than a whole range of other cargoes, like liquid gas and petroleum and so forth, so would it be a fair comment to say that Greenpeace alleging that it is going to produce nuclear weapons and all that sort of stuff is a way of rounding up public fear?

Mr COURTNEY: Well, Greenpeace has never suggested that low level waste has got anything to do with nuclear weapons. The fear that the community holds in relation to transportation of radioactive materials is not just in New South Wales, this is a global fear. The community has an understandable response to issues of radiation. I also think that this Committee faces a challenge in addressing the major threat which is posed by spent nuclear fuel transports. Under the amendments to this Act, spent nuclear fuel transports are going to be an issue that ARPANSA will not be reporting on and it will be illegal for me to communicate information relating to it. That is the serious threat that is posed to the people of Sydney. It is the one that poses the most serious risks in relation to the transport and emergency planning surrounding it. Just as the Federal Government has only recently conducted a consequence analysis of an accident or attack at Lucas Heights, it has never conducted a consequence analysis of an attack on a spent fuel cask. Now we know from the United States that it is considered a credible threat, a credible risk, that those casks could be targeted by terrorists. The casks that ANSTO use to transport spent nuclear fuel have never been tested to withstand an explosion or an attack.

The Hon. CHARLIE LYNN: What level of waste does that fall into? Is that classified as low level or intermediate?

Mr COURTNEY: Well, it depends which authority you listen to. If you listen to ANSTO, they would argue that spent nuclear fuel is not waste and I could pick several holes in their argument. If you were in the United States, they consider spent nuclear fuel as high level waste. It is trickery on behalf of ANSTO to refuse to refer to spent nuclear fuel as waste. They do that so that they can remove their obligation to come up with real workable emergency plans and they know that the consequences of a serious accident on spent nuclear fuel transport would have far-reaching ramifications that they would be pressed to deal with, the emergency services would be severely pressed to deal with, and that is why they do not want to talk about it.

The Hon. CHARLIE LYNN: So are you saying that ANSTO is sort of misleading us by giving us a classification that is not scientifically correct? How do we, as a non-scientific Committee, challenge definitions between what Greenpeace says, what ANSTO says and what America says?

Mr COURTNEY: Well, I think that you just have to use your common sense. The material that comes out of Lucas Height reactor, the spent nuclear fuel, is the most radioactive substance produced in this country. It is waste. There is no other word for it. ANSTO suggesting that they are going to remove the highly enriched uranium from it in a reprocessing operation in an attempt to say that it is not waste is ludicrous.

CHAIR: I should point out that the issue of clarification of what waste is is something that is important for us. For instance, we asked the EPA at our last hearings and they defined spent fuel rods as waste. Definitions are very important to us to grapple with.

Mr BROWN: I would like to carry on with the discussion regarding spent nuclear fuel and I refer to Greenpeace's submission on page 8 where Greenpeace states:

Jervis Bay, being host to the navy, could arguably provide the level of security that is required. This facility is also an approved berth for nuclear-powered submarines, so radiological emergency plans are already in place.

What evidence do you have that the naval facility at Jervis Bay Naval Base could be under consideration as a long-lived intermediate level waste store?

Mr COURTNEY: That is an assumption that we have made based on the criteria that have been revealed by the Federal Government. The Federal Government has considered a short-list of locations, but it is not revealing the detail of those locations. When you consider the different locations around Australia that could potentially be used as a store for long-lived intermediate level waste returning from France, Jervis Bay stacks up. I think that again it is

an issue that ANSTO would prefer not to be discussed in the public realm at the moment. They want everyone to be focusing on low level waste and to keep the focus off spent nuclear fuel, keep the focus off long-lived intermediate level waste dumps, and I think that the Federal Government's refusal to release their short-list of locations is just another example of the obstruction that they are putting in place for Local Governments, State Governments, local councils and communities to be fully informed as to the expansion of the nuclear industry in this country.

Mr BROWN: Mr Courtney, you say that Jervis Bay stacks up. Does it stack up for environmental or security reasons? I am trying to ascertain what your focus is, what you actually require for that. Reading your submission, it appears that security seems to be given a higher regard than the environment.

Mr COURTNEY: Certainly. I mean it has been acknowledged that nuclear waste storage poses a security risk. It is unlikely in the form that the waste comes back to Australia that a terrorist organisation, for instance, would attempt to steal that and convert it into a dirty bomb for instance.

Mr BROWN: So it comes back as re-processed waste?

Mr COURTNEY: Yes, it comes back as vitrified waste. So it is not nuclear waste under the ARPANSA classification. It is stored in large glass boxes of vitrified waste and in cases of steel and metal. There is also some waste that is due to come back which is encased in concrete. That is from the United Kingdom.

In the United States there has been a concern about waste storage that it could be targetted by attack and an explosion resulting could produce radioactive emissions that would pose a threat to a community nearby. Jervis Bay being quite remote, having heavy lifting facilities and military presence, also in close proximity to ANSTO and the technical specialists that they would want to monitor the facility, it would appear to be a possible location for the store. I would be confident in saying that it is a location that would have been considered by the Federal Government.

CHAIR: Your submission argues that the best place to store radioactive waste is at the point of the production. That is on page 4. In relation to our last two questions, does this mean that existing waste should be stored at Lucas Heights, and, if so, how should it be stored and what about the waste stored in various industry stores, hospitals and universities around New South Wales?

Mr COURTNEY: First of all, Greenpeace has stated publicly for many many years, and we have yet to be proven wrong, there is no guaranteed, sure method for storing nuclear waste for a length of time. It is dangerous. The first solution is to stop producing it. Definitely, keeping the waste on site forces the producer of the waste to implement waste minimisation strategies. If they can get away with the bearing of the debt attitude or method of waste management, there is no incentive to reduce the waste that they are producing.

One of the biggest hazards that arises through radioactive waste is the transportation of it. If you are keeping waste on site at Lucas Heights in hard structures, where it is close to specialists who can monitor it and maintain that it is not leaking for instance, you are reducing an enormous amount of risk, and you are forcing ANSTO, who are responsible for producing it, to take responsibility for its maintenance and care.

In relation to the low level waste that is stored in hospitals and so on, there has never been a proper investigation into whether those facilities are adequate. The Federal Government has used that as a way of spreading the threat to hide the fact that it is actually ANSTO that is driving the need for a waste dump in South Australia or for a store for waste. The waste that is stored in universities and hospitals is a non-issue compared to the waste that is produced by ANSTO, and, again, there has never been a full inquiry into whether those facilities are adequate. I think that again is part of the public relations strategy that is being played out by the Federal Government at the moment to justify the need for the waste and take the focus off Lucas Heights, which is the real cause of their waste problems.

The Hon. IAN COHEN: Mr Courtney, obviously you are concerned about the secrecy of the industry, and I note there is a press release that came out from Greenpeace on 18 September about an accusation of a cover-up in terms of a frayed cable with the transfer of nuclear rods. Could you just comment on that in terms of ANSTO's reaction and your position in terms of where it leaves local residents in case of an unknown situation?

Mr COURTNEY: Yes. The press release was put out by another environmental group, but that incident was referred to in ARPANSA's last quarterly report, where they said there was an incident involving removing a fuel rod from the Lucas Heights reactor and that there was discussion going on between ANSTO and ARPANSA whether this was a reportable incident. ARPANSA only reports incidents that they classify as a Category 1 accident. Of course, ANSTO are always very very keen to make sure that incidents, which are never referred to as "accidents", do not meet that Category 1 status. So that then ARPANSA said, "I will have to report on it". It has been suggested that what happened in that incident was that a crane was being used to lift spent fuel out of the reactor, the cable began to fray and it was spotted and they stopped that operation.

ARPANSA's reporting on accidents and breaches at Lucas Heights is something that should be considered by the Parliament and by the Committee, and as to ARPANSA's ability to report on issues such as that, I do not think ARPANSA will be gagged by the amendments that are going through the Federal Government at the moment. If it is a nuclear issue that ARPANSA is reporting on that could undermine physical security, ARPANSA will be prohibited from reporting on it, and that relates to accidents, breaches of security, transportation of radioactive materials, such as the importation of 35 kilograms of uranium

hexafluoride by Silex. It is going to increase the level of secrecy around a facility that is already almost hidden behind an impenetrable wall of secrecy.

The Hon. IAN COHEN: In your earlier submissions to the inquiry in terms of the low level waste, you were talking about the responsibilities and the capabilities of cleaning up any situation such as in case of an accident and that type of thing. Could you perhaps from Greenpeace's point of view indicate any problems that you see with effective clean up of that type of waste in the environment?

Mr COURTNEY: Yes, certainly, and I refer to the comment made by an ARPANSA representative at a Blue Mountains meeting recently, where he said that any clean up would be a shovel and wheelbarrow job. That is patently downplaying the real risks and damage to the environment that radioactive waste transport could create.

One of the problems with the low level waste is that it again comes down to the categorisation of the waste and the record of what waste it contains. Greenpeace has a concern that in an event, let's say a spill, a truck rolling, catching fire and radioactive materials being spread over an area, the level of clean up required is going to be not immediately apparent and possibly complicated by the fact that inventories of that waste are not accurate, have not been kept as accurately as they could have been.

Again, the ability for authorities to prepare for and adequately deal with an accident are going to be diminished, because under the amendments to the Act going through Federal Government at the moment, there will not be any prior notice of these. There will not be any requirement of ANSTO to inform authorities that they are intending to conduct a transport. So local hospitals, for instance, will not be able to ensure that they have extra staff on who are specifically trained in radiological emergencies. Emergency services like the SES will not be able to ensure that their staff have been adequately trained.

An SES person out in the middle of western New South Wales - I do not think those people have been adequately trained in, first of all, how to deal with radiation, but also being informed of the health effects that they are going to be exposed to. These guys are going to be asked to go in and deal with radiological emergencies in the event of an accident without being fully informed of the possible long-term consequences to their health, and not only their own health, but their children's health as a result of potential damage to DNA.

The Hon. IAN COHEN: Do you have international examples where there was satisfactory movement and storage undertaken and how does Australia, and Sydney in this case, compare?

Mr COURTNEY: There are many examples around the world in relation to spent nuclear fuel management. For instance, in the United States all spent nuclear fuel is stored in aboveground storage. They are at the moment trying to develop a facility known as Yucca Mountain, but because the United States has

a much more open and accountable regulatory system, their process in developing that facility and requiring approvals for that facility has been slowed down by many factors, not least of which they are critically assessing the security risks posed by transport, they are critically assessing the risk of transport access, they are critically assessing the consequences of such accidents and preparing the emergency authorities to deal with those accidents. In comparison to the rest of the world, Australia's regulatory system and the level of protection afforded to the nuclear industry by the Federal Government puts us far behind the strategies and methods being employed.

The Hon. IAN COHEN: In your submission you note serious concerns over the preparedness of emergency services to adequately cope with an accident or attack resulting in even a small release of radiation. Are you referring to the existing storage of waste, transportation, or both, and can you detail any other specific concerns you have?

Mr COURTNEY: Yes. Well, in relation to the storage of radioactive waste, the transportation of waste from Lucas Heights to Port Botany is a vulnerable activity. The casks that they use to transport those wastes have never been tested to withstand an attack. The Minister for Defence, Mr Hill, was recently quoted--

The Hon. CHARLIE LYNN: What sort of attack are you talking about there?

Mr COURTNEY: Well, in the United States, for instance, there have been several tests conducted on spent fuel casks by Sandia Laboratories, and again public information relating to these tests is not readily available, but it was shown that a cask could not withstand the impact of a man-portable missile or a shoulder-fired missile, which the Minister for Defence has recently concluded are weapons that are much more readily available.

The Hon. CHARLIE LYNN: What is a missile going to do going into a canister where we are going to have some rubber gloves and tissues?

Mr COURTNEY: Spent fuel.

The Hon. CHARLIE LYNN: We are talking about low level waste of about 30 cubic metres a year and you are suggesting that somebody is going to be hidden somewhere with a TOW missile or a shoulder-fired missile and fire it into a drum?

Mr COURTNEY: I suggest that the real risk from an attack like that is a spent nuclear fuel cask. Now that is the most radioactive material in this country. I think that the consequences of an attack on even a low level waste transport has not been investigated and to say that there would be no consequences is ludicrous. Burning radioactive materials emit radiation that is carried by smoke. How far is that smoke going to travel? What are the

consequences on the community living nearby? What are the long-term consequences? What is the economic impact of an attack like that?

The Hon. CHARLIE LYNN: So you do not think we have the capacity--

The Hon. IAN COHEN: I was in the middle of a question. I appreciate you asking one, but if I could ask you, Mr Courtney - I mean Mr Lynn is keen to talk about rubber gloves - if you could perhaps give a description, from your perspective, as to the types of material that may well be transported on this westward route? We are not talking about the fuel rods going to Port Botany, but what we are dealing with in terms of the variety of materials that could well be transported on this longer route.

Mr COURTNEY: Yes, well, it is a range of materials from solidified liquid waste--

The Hon. IAN COHEN: They have said there is no liquid waste to be transported, so could you describe that to the Committee and its impact potentially?

Mr COURTNEY: Yes, it is solidified. They mix the liquid waste with a hardening agent - concrete, for instance, is often used - and remove the water from it as much as they can. I would suggest that part of that liquid waste is also ending up in the sewerage outfall at Potter Point, Cronulla.

The Hon. IAN COHEN: That has been acknowledged.

Mr COURTNEY: Of course they say that that is not dangerous because it is so diluted when it gets to the outfall.

The Hon. IAN COHEN: Just on that point, Mr Courtney, do you have any idea with the material going out at Potter Point, be it very low level, of how long the half-life of those materials is?

Mr COURTNEY: Not off the top of my head, and this is an issue that has been investigated by groups over the years. I know that Sutherland council, which is looking at implementing waste recycling strategies, is very concerned about its ability to use liquid waste from the shire because of the radioactive content in it.

The Hon. IAN COHEN: Perhaps you could take that on notice and get back to the Committee?

Mr COURTNEY: Sure.

The Hon. IAN COHEN: Going back to my original question in terms of the nature of the waste from your perspective, are we just dealing with rubber gloves which is, as Mr Lynn perhaps rightly says, a material that really is of little consequence?

Mr COURTNEY: Well, any radioactive material is of consequence. It is disingenuous to say that this is not a problem because it is rubber gloves and glass containers and so on. Any radioactive spill is going to have consequences. Any burning radioactive material is going to have health consequences. I really do not think that ANSTO has investigated to its extent what those consequences would be. If ANSTO has not investigated what the consequences would be or has not revealed what those consequences would be, it makes it very difficult to conduct efficient emergency planning or to plan for the medical consequences of an accident. What it comes back to is that the Committee needs full openness and accountability from ANSTO in relation to this and it is a very difficult thing to obtain. I refer you to the comments made by a 2001 senate inquiry into the contract for a new reactor at Lucas Heights:

The Committee is highly critical of ANSTO's approach to providing documents. Its attitude seems to stem from a culture of secrecy so embedded that it has lost sight of its responsibility to be accountable to the Parliament.

I think that if ANSTO has lost sight of its responsibility to be accountable to the Federal Parliament, that sends quite a frightening signal to the people of New South Wales or the New South Wales Parliament.

CHAIR: You have recommended to the Committee that a full risk and consequence analysis should be carried out into both waste transports to the proposed low level waste dump and spent nuclear fuel. You have just referred to the need to be aware of what the risks are. Could you please describe in more detail what this analysis would provide and how it would be utilised?

Mr COURTNEY: Again focusing on the most dangerous of the risks posed, spent nuclear fuel being that risk, Greenpeace has concerns about the ability of these casks to withstand a range of events, including fire. We do not believe that the tests that have been conducted on these casks are adequate given developments and security concerns that we are faced with in our current political environment and with the increased threat of terror. A consequence analysis of a breach of one of these spent fuel casks resulting in even an emission of one percent of its radioactive content will demonstrate the breadth of the area that will be contaminated. It will demonstrate, for instance, the amount of people that will potentially be contaminated.

In relation to emergency planning, one of the fundamentals in place is, first of all, the provision of potassium iodide, which Greenpeace does not believe is a solution - potassium iodide protects you from just one of the radioisotopes that you would be exposed to - but it also calls for evacuation. Now evacuating a community that has no idea that they may be called upon to evacuate or has never had to practise an evacuation is virtually impossible. Calling on a community to evacuate is going to result in panic. It is a consequence analysis that will enable a government to determine the effectiveness of its emergency planning. You cannot determine the effectiveness of an emergency plan if you

do not know how far-reaching or over which area or how many people will need to be affected by that emergency plan, and that is the sort of thing we do not know. As far as we know, there has never been a consequence analysis of a breach of a spent fuel cask resulting in a radioactive release. We know that there has been a consequence analysis of a radioactive breach at Lucas Heights resulting from an accident or attack, but the Federal Government has suppressed that document. I think that if the people of Sutherland, and the people of Sydney even, knew what the consequences were of an attack, there would be massive opposition to the Lucas Heights reactor, and the Federal Government knows that. The fact that they are suppressing that document gives a pretty clear indication that they are concerned that they are not prepared fully to deal with an accident. The social and economic impact of a leak of radiation, either from the reactor or from a spent fuel cask, could be enormous. These are the sort of things that need to be investigated.

I think the Federal Government made a serious mistake constructing that reactor at Lucas Heights. The activities at Lucas Heights, such as spent nuclear fuel transport, present real threats to the community and I do not think the Federal Government really wants the community to know how serious those threats are.

Mr SLACK-SMITH: Mr Courtney, you have raised some very interesting issues, but what you have not done is you have not actually told us exactly what level of radiation, because I have radiation in my watch and there is a lot of rhetoric about Lucas Heights and how old it is.

The Hon. IAN COHEN: It is about ten years old.

Mr SLACK-SMITH: The levels of actually what is going to be transported, the actual level of radiation, because as you know, radiation varies throughout the world. Could you please elaborate?

Mr COURTNEY: Sure. There have been plenty of details provided to the Committee into levels of radiation, the classifications and so on. Our submission contains appendices which go into high detail about the categories of waste and the levels of radioactivity contained in that waste. I think the thing that members of the Committee should be keeping in the back of their minds is that the World Health Organisation clearly states there is no safe level of exposure to radiation. There is no level of exposure to radiation that is not going to cause some harm to the human body, damaging cells, and in extreme cases damaging DNA. People are being exposed to low levels of radiation all the time, and ANSTO for instance say we are exposed to low levels of radiation from the sun causing skin cancer which is virulent in our community.

Trying to say we do not have to worry about low level waste because it is low level radiation is again trying to downplay the risks. Again, there is no safe level of exposure to radiation. So saying that this is low level waste, we do not have to determine the consequences of an accident of spent fuel transport or

an accident of low level waste is disregarding the fact that radiation is dangerous.

Ms JUDGE: Mr Courtney, one of the justifications for the facility at ANSTO when we visited the facility was that so-called research was needed for the production of isotopes for research and treatment, palliatives, etc, for very invasive cancers and so forth. What are some of the alternatives that could perhaps be looked at rather than having to go down this path?

Mr COURTNEY: Sure. Just in relation to ANSTO's claim that it is primarily for radioisotope production, that is the same thing that the Iranians say about their nuclear program, the same thing Iraq said about their nuclear program, the same thing that North Korea says about their nuclear program, either it is for medicine or it is for producing energy.

The Department of Foreign Affairs and Trade has stated that ten percent of the neutrons produced by the Lucas Heights reactor are for medical research or the production of radioisotopes for medicine. That leaves 90 percent of the activities of the Lucas Heights reactor undisclosed virtually. There are some companies that operate out of Lucas Heights, for instance Becquerel Laboratories - interestingly the CEO of Becquerel Laboratories is the husband of the CEO of ANSTO. Becquerel Laboratories has mineral allowances that are mostly for the uranium industry.

The medical isotopes' argument is largely a myth. Yes, there is some research that goes on into medical isotopes at Lucas Heights, Lucas Heights does produce some radioisotopes for medicine, but there are proven alternatives for the production of radioisotopes. These are alternatives that do not require nuclear reactors. Therefore, they do not have the ensuant problems of waste, they do not allow countries to hide behind the medical argument to develop dual use technologies or develop nuclear capability that could be used for ulterior motives.

These are exactly the sort of technologies that Australia could become a world leader in. ANSTO could be a world leader in non-nuclear methods of developing radioisotopes or producing radioisotopes; ANSTO could become a world leader in waste management solutions. These two areas are real and practical areas of research. Australia is never going to be a world leader in nuclear technology, and when you look at the problems that nuclear technology has given us, low level waste, high level waste, compared to the problems in the United States and parts of Europe where they are drowning under mountains of nuclear waste, we should be learning by the international example and saying nuclear technology, building nuclear reactors is a mistake. There is no way of dealing with the waste that is produced by them and ANSTO could be becoming a world leader in these alternatives.

The Hon. CHARLIE LYNN: Mr Courtney, in the police submission they give examples of basically incident free transport. They say that the only injuries that have been suffered in this were from extricating a protestor who was

in the direct path of a transporting ship which was under way. Given that, can you see the need for people who are moving low level waste to keep their timetables confidential and secret to avoid the problems of protestors?

Mr COURTNEY: I think that the Government uses protestors and I think the people have got -

The Hon. CHARLIE LYNN: This is the police submission.

Mr COURTNEY: Okay. I think, first of all, people have got a right to protest.

The Hon. CHARLIE LYNN: Would you think they had a right to protest by interfering with a convoy of low level waste between here and Wollongong?

The Hon. IAN COHEN: Well, I have been in that situation.

Mr COURTNEY: I would also remind you that Bob Debus, in a meeting at the Blue Mountains, recommended that that was the only way that people were going to stop radioactive waste going through their town.

The Hon. CHARLIE LYNN: Do you think that there is a danger to the community in the likelihood of causing an accident by avoiding a protestor or something? Do you think that that is responsible?

Mr COURTNEY: No, I think that it empowers the community. A community that feels seriously threatened by the activities of an organisation that conducts its operations in secret, imposes threats on that community that they refuse to acknowledge. I think that community has little option but to stand in front of proposals that are undertaken without consultation.

The Hon. CHARLIE LYNN: They call it incident free movements. They have got systems by which they can get the low level waste we have been talking about, which is in drums that we have seen at Lucas Heights, onto a truck. We are only talking 30 cubic metres a year, we are talking probably two truck loads a year after they get the bulk of the stuff away. Are you saying our authorities do not have the capacity to securely move two truckloads a year between Sydney and Wollongong?

Mr COURTNEY: I actually think the issue of transportation of radioactive materials through Sydney is bigger than is being considered by this Committee also.

The Hon. CHARLIE LYNN: It goes every day, every day they are going to have 2,500 movements of radioisotopes, which I believe are more radioactive than the waste.

Mr COURTNEY: I think if there was full disclosure and I think if the EPA had some information about this, you will find that it is not incident free.

We have heard several times about accidents, at the airport for instance, involving radioisotope containers. We have tried to investigate that, but we have been stonewalled. In almost every investigation of the nuclear industry in this country, first of all you come across commercial in-confidence and then you come across national interest. I think ANSTO's claim that there are 50,000, or 28,000 in their latest submission - the figure is dependent on who they are telling - movements of radioactive materials without incident is actually false. I think that if this Committee investigated, the New South Wales EPA, for instance, or the fire brigade has a facility where they log incidents and it is my understanding that there are several incidences recorded in the database of accidents involving radioisotope containers.

The Hon. CHARLIE LYNN: Several over how long a period?

Mr COURTNEY: Well, I do not know because access to that information has been denied.

The Hon. IAN COHEN: You are saying that there is a source of information that does not concur with what is officially put out?

Mr COURTNEY: There are often sources of information that do not concur with what is officially stated by ANSTO. I would refer back to these amendments and I will give you the example of construction problems that are currently being experienced. The media has focused on one of the construction issues. It is my understanding that there are several construction problems being experienced at Lucas Heights. The fact that there are any construction problems was only revealed by a whistleblower. Under these amendments, that whistleblower would be faced with, first of all, arrest without warrant and then two years in prison. ARPANSA will be prohibited from reporting on issues that might compromise physical security. The media will be gagged from reporting on anything that might compromise physical security.

There is a total lockdown of information relating to the nuclear industry in this country and it is getting tighter. We occasionally get phone calls from people saying "We think you should be looking at this", for instance spills of radioactive materials at the airport, but you can imagine what sort of stone wall someone like me has calling and saying, "G'day, I'm from Greenpeace, I've heard you've had a radioactive accident".

We are loath to raise issues that we do not have evidence to back up, but that is the sort of evidence that this Committee should be investigating and I think the claim that they have all these transports of radioactive materials without incident is one that should be investigated.

I also think that you should be seriously concerned about the volume of radioactive materials that is going through Mascot Airport. This is an example of the implication of Sydney becoming the nuclear hub of this region: In the 2001-2002 ARPANSA report there were 369 approvals for the importation of non-medical radioisotopes and 374 approvals for the importation of medical

isotopes. We do not know any details about those approvals, we do not know the types of radioisotopes, the radioactivity of them or the volume of the radioisotopes, but I would suggest that potentially many of those radioisotopes are coming in through Mascot airport. We know that fresh fuel, highly enriched uranium, has been coming in through Mascot airport. The volume of radioactive materials going through Mascot airport is only going to increase when you build a reactor twice the size of the one that is already there.

The Hon. IAN COHEN: And those materials, one would presume, would go out to medical establishments, etc, and then come back to the reactor and be disposed of on the western route or--

Mr COURTNEY: Well, there are certainly some medical isotopes, but there are also industrial isotopes that are going out. Again, information relating to those isotopes, the movement of those isotopes, will be almost impossible to ascertain under the amendments that are being made to the Federal Acts at the moment and I think that the issues relating to the consequence of an accident, a plane crashing carrying radioactive materials, preparedness for emergency services to deal with a plane crashing somewhere in Sydney carrying radioactive materials, are all issues that the Federal Government does not want addressed. I will give you an example of Silex: 35 kilograms of uranium hexafluoride. How are they going to get that into Lucas Heights? What liability does Silex have in the case of an accident? This is a highly classified sensitive technology transfer that the Federal Government does not want the people of Sydney to know about. It is going to be conducted in absolute secrecy. Therefore, there is no way of determining what the risks associated with that activity are. That cuts to the core of ANSTO's activities. It is virtually impossible to determine what the real risks associated with ANSTO are, what the real impacts and consequences are for communities, because they just refuse to reveal the information that you would need to make those determinations.

CHAIR: In fairness to our next witnesses, unfortunately I think we need to finish, but I would like to say thank you very much for appearing before us today, and you would be happy to take any other questions that the Committee may have in writing?

Mr COURTNEY: I would, and I would also like to table some information for the Committee, examples of information that will be illegal for me to communicate to you under the new amendments: A photograph of a spent fuel cask travelling through the streets of Sydney in the middle of the night and some maps showing the fuel routes that have been used by ANSTO in the past. We actually have not shown on that map the route that ANSTO has used down to White Bay in Sydney harbour. Although they have not used it for years, there is no guarantee that they would not consider using that route again. There is a photograph of the ship that was used to last transport spent nuclear fuel and I cover in my submission that it failed safety inspections in Brisbane before it arrived in Sydney to conduct its last ever transport of spent nuclear fuel - since then it has been removed - and an issue of significance that the Committee should also be considering is the storage facility at Lucas Heights in which they

are keeping spent nuclear fuel at the moment. It is little more than a shed. It is highly vulnerable to attack. ANSTO has refused to consider any implications of an attack on that facility and Greenpeace believes that it is highly unsuitable and below international standards.

(The witness withdrew)

BRIAN WILLIAM HOWARD, (known as Horrie Howard) Chair, State Emergency Management Committee of New South Wales, PO Box A792, Sydney South, 1235, and

JAMES STUART HAMILTON, Chief Superintendent of the New South Wales Fire Brigades, Assistant Director of Special Operations, 189 Wyndham Street, Alexandria, sworn and examined:

CHAIR: We have submissions from you. Is it your wish that the submissions be included as part of your sworn evidence?

Mr HOWARD: I would like to ask Superintendent Hamilton to comment in respect of the specific New South Wales Fire Brigades' submission, but the State Emergency Management Committee submission, we would be happy to have it included in evidence.

Mr HAMILTON: I am happy for the New South Wales Fire Brigades' submission to be included in the evidence.

CHAIR: Do either of you wish to briefly add or elaborate on your submissions?

Mr HOWARD: I would like to do so, if I may. The State Emergency Management Committee is the principal Committee for planning how to deal with emergencies in New South Wales and for providing advice to the State Government on all issues of emergency management. The committee itself has no direct operational role, because if an incident or emergency occurs it is no time for a committee to be running it. The individual members of the committee do have operational roles, as all the lead or combat agencies for dealing with emergencies are represented, as well as the police.

An incident or any emergency involving nuclear materials would be dealt with under the New South Wales hazardous materials subplan, for which the New South Wales Fire Brigades is the legal combat agency, and they are supported by the Environmental Protection Authority. I think I should comment at this stage that in respect of security for transport of this type or other types of material, the primary responsibility here rests with the New South Wales Police. Thank you.

CHAIR: Mr Hamilton?

Mr HAMILTON: No, I have nothing to submit. Horrie Howard has covered the general gist. I do note that New South Wales Fire Brigades is the combat agency as opposed to the SES.

The Hon. CHARLIE LYNN: To both gentlemen initially, through the management committee I assume that you have examined the issue of nuclear

transport and low level hazardous waste and what could happen, that you have modelled some training on it and you have done some training, is that the case?

Mr HAMILTON: Yes, that is the case. The New South Wales Fire Brigades' capability is based on the existing risk that we have at the present time, which is a low level hazard as per the definition by the EPA. With the majority of the nuclear waste being stored at ANSTO, we have based our model on that local area. If the proposal to take it to Woomera in South Australia was to occur, then the New South Wales Fire Brigades would have to increase its capability to cover that country area. The country area is covered by New South Wales Fire Brigade stations across that whole area and they have a standard level of response for hazardous materials response. They have protective clothing and set skills to do that. When it comes to radiological though, we do not have any radiological detectors in that area, so that would be a shortcoming we would have.

With regard to Lucas Heights itself, we have been involved through the local emergency management committee and the district emergency management committee, and that is including the Sutherland Shire, in the reviews that have been undertaken, development of local plans and exercises. Our hazardous materials response unit, which is based at Greenacre, also at Wollongong and Newcastle, part of their training is a day's training at ANSTO and there are regular refreshers on that, and that is out at ANSTO itself. They have a familiarisation and they work with the local plan. The local stations, being Menai and Sutherland, because of their locality also do incident plans and exercises with Lucas Heights and they also have a detector.

The Hon. CHARLIE LYNN: So basically you have developed a model but you can then move that?

Mr HAMILTON: That model can be transported, but, as I said, based on the initial risk at the present time, that is where our capability lies.

The Hon. CHARLIE LYNN: In the Greenpeace submission they said that they hold serious concerns over the preparedness of emergency services to adequately cope with an accident or attack that resulted in even a small release of radiation. Would you like to comment on that?

Mr HAMILTON: As I said before, we have the capability there to deal with the initial release of radiation, if that is the case. That capability, as I indicated before, is detectors. Also we have standard operational guidelines. We also have training in place. We also link closely with the EPA, and with that we can actually put our plans into place to deal with a low level incident.

The basis of that capability, obviously when you talk about radiation, is time, distance and shielding. So we have protective clothing and we would monitor the time that the crews were actually involved in an incident and then also the shielding, so we would bring them back out at a distance. So with that we do have a capability.

The Hon. CHARLIE LYNN: The Sutherland council told this Committee that:

Jurisdictional difficulties exist regarding State and Commonwealth regulation of radioactive materials and emergency response.

Two questions: What is your experience in this regard and what systems are in place to co-ordinate State Emergency Services with Federal Government agencies?

Mr HAMILTON: With regards to the boundaries, ANSTO is a Commonwealth facility, so therefore the Commonwealth has the regulatory responsibility for that site. Anywhere outside the fence is part of New South Wales, therefore it comes under the SEMC, under the local and district emergency management committees for their plan. That also then brings it back into the realms of New South Wales Fire Brigades as combat agency. We have done liaison with the local areas. As you said, the plans have been developed through the Sutherland Shire. So there is an integration between ANSTO and the Fire Brigade should anything occur.

The Hon. CHARLIE LYNN: Have you consulted overseas agencies to look at their procedures and so forth?

Mr HAMILTON: Yes. The procedures that we have, as with when we develop any sort of standard operational guidelines, are widely researched and we also have access through State and national and international committees to world's best practice. Our response protocols are based on those. So the actual response side is covered. Obviously, the preparation is the issue. If the storage facilities are sound, then the response is a precautionary measure and it goes back to --

The Hon. CHARLIE LYNN: Have you looked at the storage of low level waste at ANSTO?

Mr HAMILTON: Personally I have not, no.

The Hon. CHARLIE LYNN: Has that been assessed by your committee?

Mr HAMILTON: The storage is regulated through ARPANSA. So ARPANSA is the regulatory authority to review the storage facilities. They set the standards. That is also linked back into EPA. So I shouldn't comment on EPA nor ARPANSA's role.

Ms JUDGE: I would just remind you that you are under oath. Could you inform the Committee whether there have been any incidents involving any sort of level of radioactive spill, whether it is low, medium or high, in that area, at the airport or anywhere else in New South Wales, and do you keep a table of

that, and when you are called out are there any records kept, and where are those records kept?

Mr HOWARD: Could I just intercede here for a moment. I think for the question to be answered now, that is a bit unfair because -

CHAIR: If you are unable to do so -

Mr HOWARD: Mr Hamilton is relatively new in this process, Mr Chairman, that is all.

Ms JUDGE: I am new too, so I do apologise.

CHAIR: We can ask questions. If witnesses feel that they cannot answer or do not have the evidence to hand, please feel free to say you would like to take it on notice. The other option is if you believe that there are security or other matters, then it is possible for the Committee, if you wish, to go in camera, which means that only the Committee members would hear your response. Either of those are available to you.

Ms JUDGE: It is fairly important information.

CHAIR: It is important information. Would you like to take that question on notice?

Mr HAMILTON: Please.

Ms JUDGE: One of the things that interested me when we had our tour of the facility was the medical isotopes that were stored and then transported for industrial and medical use throughout obviously hospitals and so forth. My observation was that they are stored in steel containers and then put on the back of combi vans and things like that. I do not know whether this would be you or perhaps the EPA or police, but I would also like to have the EPA and police be available for interrogation or discussion at this Committee. Is there a map or a plan of where these isotopes are taken and also the amount of spent isotopes or used isotopes that are actually stored at different hospital and industrial sites, because one would presume at some time there is going to be an excess and they are going to be put somewhere. Do you have that sort of information?

Mr HAMILTON: No, that information would be contained within the EPA. They also are the regulatory authority within New South Wales.

Ms JUDGE: Is it possible to get that information from the EPA?

CHAIR: Yes, we should make a note to request that information from the EPA.

Mr SLACK-SMITH: The fire brigade submission advises the Committee that there is minimal risk of radioactive contamination occurring even in the event of a high speed road accident. The Sutherland Shire Council submission advised that accidents may liberate radioactive waste. Would you like to comment on that?

Mr HAMILTON: In the fire brigade submission we were looking at planned transportation from either Lucas Heights to Port Botany and/or to Woomera and, in those circumstances, we were looking at the packaging that would be put in place through the ARPANSA regulations, which from my understanding is of a high quality and a high standard. With that, the indications that I have had are that it would be able to withstand a high speed motor vehicle accident. I know that with the previous witness we were talking a little bit differently from a high speed accident to a shoulder-mounted rocket. I do not know the consequences of that, so I cannot comment on that, sorry.

Mr SLACK-SMITH: It has been put to the Committee that the transport of hazardous materials, such as petroleum and chemicals, is a greater hazard than radioactive waste. What is your view on that?

Mr HAMILTON: Having been at numerous hazardous material incidents involving both petrol tankers and leaking chemicals, there is an immediate issue of the consequences of that. A petrol tanker involved in an accident, overturned, et cetera, can catch on fire very quickly. You have liquid fuel spills, so it can run down drains. You have vapour hazard issues. There is an immediate and pronounced issue with that. We have had chemical fires and they are the same: They are fairly significant and serious. With regards to a radiological incident, probably the initial outcomes are not as drastic in the sense that there is the immediate fire or immediate spill and containment and evacuation. However, obviously the consequences of it are just as significant in a different way, so we would treat any hazardous material as a significant and dangerous issue.

The Hon. IAN COHEN: You described the preparedness and detection equipment, et cetera, to deal with low level spillage, but are either of your services prepared to go into a hot zone, for example, and at what level do you declare a hot zone?

Mr HAMILTON: We have standards within our standard guidelines with detectors. If you want the actual specifics of microsieverts, et cetera, I will have to come back to you on that, but they are actually set through the manufacturer's specifications to standards, so that they will actually go into an alarm process and then we can establish our hot zone. When we get to the point where the alarm goes off, we will actually bring it back so that we have a safe working distance. That is how we would establish the hot zone under a hazardous materials incident.

The Hon. IAN COHEN: Is there any prior communication with ANSTO?

Mr HAMILTON: Of course, depending on the location of the incident and the type of incident. If we were talking about a medical isotope then we would do that on the ground, but if it was at ANSTO then we would be relying on their expertise and again, if it is inside the ANSTO area, they would be able to advise us on that. With the procedures we have in place, the crews responding would actually be taking incremental readings to determine if there is any exposure.

The Hon. IAN COHEN: Given the often different assessments of what various levels of material are, what is considered to be low level waste, intermediate level waste and such like, other than a piece of equipment that is going to ring an alarm or go to a certain level, do you have any communication with the likes of ANSTO in terms of transport of goods and how do you assess the potential danger to your workers?

Mr HAMILTON: Well, that is exactly right. We are talking about initial response, so we would be using our detectors for that, but previous to that we would deal with the EPA, which has a radiological branch, and also ARPANSA and ANSTO to establish those guidelines so that we are not putting any of our people in danger. Obviously the safety of the community and firefighters is paramount.

The Hon. IAN COHEN: In earlier submissions, and I might be wrong here, I think we were given something like a seven minute response time in case of an emergency. I know you mentioned before the preparedness of stations in the area, but in terms of that potential response time, how would you react to an emergency, say, in the roads coming out from the ANSTO reactor, in that locale?

Mr HAMILTON: Our standard response would be two fire appliances plus the hazardous materials response unit, which is two appliances from Greenacre. There would also be notification to EPA - we have a 24 hour emergency call number which would be activated and that would then be passed through to the EPA radiological branch - and communication with ANSTO as well. Our standard response time is seven minutes. The standard for the fire brigade is approximately a seven minute response time for a first appliance.

The Hon. IAN COHEN: Well, we have had a fair bit of evidence, and there have also been issues in the media in the past, about the difficulties of that particular area. Would either of you care to comment on that in terms of response time, because we have seen bushfires, traffic jams and lack of access and, with the increasing development in those areas, with the encroachment of suburban development and such like, could you indicate to the Committee whether you feel comfortable with those response times and your personnel's ability to adequately access emergencies there?

Mr HAMILTON: I would go back to a newspaper article I read this morning where there were access difficulties in the Leichhardt area. Four cars were blocking access and they had to be sideswiped to get to a fire. The

concern of access is one across the whole of Sydney, with traffic jams, with bushfires, et cetera, so I would have the same concerns within that area, that if there were traffic jams or bushfires there could be concerns with getting crews in there.

The Hon. IAN COHEN: But does the siting of the reactor at Lucas Heights present particular difficulties?

Mr HAMILTON: Our nearest fire station is Menai fire station, which is approximately three minutes down the road.

The Hon. IAN COHEN: In terms of HAZMAT protective material, I understand that you say you are protected by radiation reading devices, but do you have equipment with those teams that gives immediate protection against radiation itself?

Mr HAMILTON: Every fire appliance in New South Wales carries fully encapsulated clothing, which is vapour protective clothing. It is predominantly for chemical use but, within timeframes, will provide you initial protection for radiological incidents.

Ms JUDGE: Has your organisation been called out for any radioactive spills?

Mr HAMILTON: Can I take that on notice? That is the same question as previous.

CHAIR: Yes, if you would like to.

Mr HAMILTON: I can go back and check that for you.

Ms JUDGE: And to follow up with Mr Howard, State Emergency Services, the same question: Would you be notified as well? If the fire brigade is notified, is your organisation also notified if that happens?

Mr HOWARD: No. Remember I mentioned at the beginning that the committee as such has no direct operational role. Our job is to make sure that the plans are in place and individuals on it have operational roles, such as Mr Hamilton and others. We would not necessarily be notified of a smaller incident, but obviously if there was anything of any significance we would be notified because we would be required to investigate it. From the broader emergency management point of view, I can recall not being required to do that in the time I have been chairman.

Ms JUDGE: Would you think it would be a helpful thing to have in the future, that if there were any incidents, whether major or minor, that your organisation should be informed about those incidents?

Mr HOWARD: Obviously, any incident which relates to the New South Wales Fire Brigades is captured by their system.

Ms JUDGE: You have not quite answered my question.

Mr HOWARD: I have not finished. And also it would be recorded by the police system. In the emergency game, we work underneath the police system.

Ms JUDGE: I am aware that there is sort of a partnership and collaboration. So what you are telling me now is that the police would also be informed if there is a minor or major incident and you may or may not be informed, depending on whether it was major or minor. Is that correct or is that incorrect?

Mr HOWARD: If we were required to conduct any investigation we would be informed. However, the primary agency is still the fire brigade.

Ms JUDGE: No, you are not quite answering my question. Whether you may or you might, what I am saying to you is: Have you ever been involved, number 1, and number 2, not just while you have been the chairman, but obviously when you took over this role you must have read previous reports and familiarised yourself with the operations. Have you at all been informed of any up to this point in time, and do you think it should be mandatory that your organisation should be involved whether it is major or minor, because there could be some problem with the terminology of what constitutes a major, what constitutes a minor incident, or how much your activity gets out before it is major. How do you quantify those issues?

Mr HOWARD: I set the committee up. Therefore, there has been no incident since the formation of the State Emergency Management Committee along the lines that you have suggested.

Ms JUDGE: When was your Committee set up?

Mr HOWARD: 1990.

Ms JUDGE: So you have not been informed of any spills at all during that period of time?

Mr HOWARD: Not to my knowledge.

Ms JUDGE: What do you mean by "not to my knowledge"?

Mr HOWARD: Well, obviously I don't remember every incident report that has come across the committee's desk in 14 years.

Ms JUDGE: Could you come back to us on that?

Mr HOWARD: I would be delighted to do so. I think Mr Hamilton has got something to add.

Mr HAMILTON: I was just going to indicate too that through the levels of committees, we have the local emergency management committee, the district emergency management committee and then the State emergency management committee, so if there was any - and I have to take it on notice too - if there was any incident it might have been dealt with at the local emergency management committee level rather than at the State level. I will come back to you on that.

Ms JUDGE: I think that report needs to cover all of those areas. I think you see what I am trying to get at.

Mr HOWARD: Yes.

Mr HAMILTON: Yes.

Ms JUDGE: Yes, I want to make sure that is comprehensively covered.

CHAIR: Would you take that on notice. Have any employees of the fire brigade raised any issues regarding the preparedness or ability to deal with the issues being discussed today about the transportation of nuclear waste?

Mr HAMILTON: The concerns I would have, and I speak on behalf of the fire fighters, is if the proposal is to continue the transportation to a further distance, then there are presently issues in those areas outside of the normal current arrangements that we have in place.

CHAIR: I have your submission, but are there any other issues other than in your submission that we would need to be examining in relation to that preparedness?

Mr HAMILTON: The other issue that I would have is in the global environment as it stands today, the security of those materials being transported in the event that they got into the wrong hands, any issues that might result from that. Again, that becomes a police issue under security, but that would be a concern of the New South Wales Fire Brigades.

CHAIR: You may not wish to comment on this immediately, but one of the issues that we raised at our last hearing with Sutherland was the whole issue of confidentiality of transport. In relation to the Port Botany transport, we understand there have been four transportations of high level waste in relation to nuclear fuel rods, and the argument was that that was kept confidential precisely for security purposes, but we were also advised of the need for community consultation with councils and others to be advised in relation to the proposed transportation of low level nuclear waste. Do you have a view on that?

Mr HAMILTON: I agree. The confidentiality of those transfers - we talked about preparedness before and we spoke about the response times and those type of issues. If there is going to be a transfer of waste, if the New South Wales Fire Brigades is advised of that, then we can actually put the preparatory measures in place so that response times can be minimised, we can have crews there, etc, if we needed to, to escort it. Again, we are the response organisation and the security is obviously the police area, but if we were consulted in that we would be able to offer advice. On some occasions we have been consulted; other occasions we have not.

CHAIR: Do you feel in a position to be able to elaborate publicly about those instances when you were not advised?

Mr HAMILTON: This is going back a few years now and I do not have the actual dates but there has been a transfer, I understand, where the New South Wales Fire Brigade was not involved in that transfer. That has since changed and we are advised and we are involved if necessary.

CHAIR: Are you advised by ANSTO?

Mr HAMILTON: The New South Wales Police are the ones who are doing the security. It was not that the New South Wales Police did not advise us but it was just in those circumstances we were not involved.

CHAIR: I would like to put on the record one matter. You may wish to take all of these on notice. One submission we received raised five questions and I think it is important for us to have the details. I will read them all out.

1. Across New South Wales how many HAZMAT units are there capable of dealing with a radiation spill?
2. Are the local HAZMAT commanders and crews trained in such matters?
3. How long would it take for a HAZMAT unit to get from its base to the more remote communities along the proposed transport route?
4. How do they clean up radioactive contamination?
5. Do they have adequate protective clothing for all those officers?

I understand there is a lot of detail there.

Mr HAMILTON: There is a lot of detail in that. Off the top of my head - I could answer them, but I would prefer to take them on notice and be able to give you the accurate information.

The Hon. IAN COHEN: Mr Howard, the State Department of Health in its submission stated that the Federal Government proposed to only intervene in

emergencies where iodine doses reached three times the World Health Organisation recommended level. I am wondering what the emergency management committee is doing to ensure that appropriate intervention level standards are adopted?

Mr HOWARD: Thank you. The Health Department has investigated that particular issue on our behalf, and it is proposed, to change to the World Health Organisation standard.

The Hon. IAN COHEN: I understood there was a trial or exercise by the local Sutherland Shire emergency management committee and there was some discussion about the distribution of stabilised iodine tablets. Could you give a comment from your position as to whether you would recommend that they be distributed, pre-distributed, and what would the situation be if there was an emergency and children particularly were possibly exposed? In a critical situation where there was an emergency, how would you deal with giving tablets to people, to the children in particular?

Mr HOWARD: Thank you very much. This is another one of the issues that we have needed to look at because there are some difficulties, as you have pointed out. It is our view that the emergency management arrangements for an event with off-site consequences at Lucas Heights need to be adjusted and I have not had the opportunity to brief either ANSTO, ARPANSA or the Sutherland Shire Emergency Management Committees as yet, but may I at this stage limit my remarks to saying that the policy for the distribution of stable iodine will also be adjusted. I really would like the opportunity to brief the main players, including Sutherland, before I go into absolute detail, but your point is well taken, sir, and the policy will be changed.

The Hon. IAN COHEN: So you are giving a recommendation for that?

Mr HOWARD: Yes. The decision has been made by Government already on that. I was not aware of the details of the exercise but, perhaps coming back to your point, as a result of the exercise, a problem of the distribution of this medication was pointed out to the State Emergency Management Committee even though we were not involved in the detail of the exercise. That came up through the system to us and we have reacted to it.

The Hon. IAN COHEN: Also, Mr Howard, in terms of emergency response for the New South Wales community, is that in any way being determined by ANSTO public relations? What is the communication there?

Mr HOWARD: There is a local liaison committee which includes representatives of the local emergency management committee, Sutherland shire and ANSTO. That is the level of liaison and negotiation at this stage. Put very simply, the emergency management arrangements outside the fence are the decision of the State Government. Obviously we have to be guided by certain information which we receive from them, but what we do outside the fence in terms of protecting the community of New South Wales is our business.

The Hon. IAN COHEN: Is ARPANSA involved in supervising the waste transport?

Mr HOWARD: I cannot answer that, sir.

The Hon. IAN COHEN: Could you say why you cannot answer that?

Mr HOWARD: Well, obviously they would be in some regard. I do not know the details, so I would prefer to take that on notice as well, if I may.

The Hon. IAN COHEN: I was just wondering whether there was security issue there.

Mr HOWARD: Exactly how they do it, I am not aware of. They are the regulator, as we both know, but exactly where they fit in - and I am talking specifically of security here, which is not our responsibility, I should say, it is our business but it is not our responsibility.

The Hon. IAN COHEN: I appreciate that.

Mr HOWARD: Maybe Mr Hamilton can answer the question.

Mr HAMILTON: Because it is a Commonwealth facility, ARPANSA is the regulatory authority, so they would stipulate the standards that were required before any shipment could occur, so that is how they would be involved in it, and that would be linked in, again because of the local authorities, through EPA to make sure that the New South Wales concerns were addressed.

The Hon. IAN COHEN: In a remote community such as Narromine, in terms of emergency services, I am wondering what the response time for HAZMAT would be in the event of some sort of nuclear-related emergency on that transport route?

Mr HAMILTON: Presently, or if we knew that there was a planned--

The Hon. IAN COHEN: Well, perhaps you could say presently and perhaps you can inform the Committee what would need to be undertaken to give that particular community, which is a good example I think, a state of readiness and where would the funding come from to actually provide HAZMAT equipment, et cetera, to deal with a situation like that?

Mr HAMILTON: Narromine has a retained fire station with one fire appliance. They are trained in standard hazardous materials response as per our standard operational guidelines. They are trained to wear breathing apparatus and protective clothing. Protective clothing is on every fire appliance in New South Wales, as I indicated.

The Hon. IAN COHEN: Would they have a radiation alert system?

Mr HAMILTON: No, they are at the standard level. The next level is an intermediate HAZMAT vehicle, which is at Dubbo, so the distance from Dubbo to Narromine would be approximately--

Mr McGRANE: Thirty minutes.

Mr HAMILTON: Thirty minutes, thank you. That is an intermediate HAZMAT vehicle which carries some extra resources of protective clothing. It also carries a lap-top computer with databases on chemicals and that type of thing. It also has a standard gas detector, not a radiological detector. The next level up is our HAZMAT technicians, which are based at Sydney, Newcastle and Wollongong, and we have a process in place where we can fly those resources at the present time with Westpac or Care Flight. Also within the next eight weeks we will have a shared helicopter on board with NSW Police which will be able to be used for deployment of personnel.

The Hon. IAN COHEN: That will be based where?

Mr HAMILTON: That is based at Bankstown. So that is our standard capability across the State. Every fire station - 340 fire stations - has a standard HAZMAT capability. We have approximately 15 intermediate HAZMAT vehicles in the country areas and we have the HAZMAT technicians response from Newcastle, Sydney and Wollongong.

To answer the further part of that question, if we were consulted with transportation, we would ensure that at this present time we would put some technical crews from a HAZMAT unit to escort it that distance. That was one of the concerns that was raised in our submission, that if we were going to have this transportation either we would have to do that escort or we would have to increase capability at those stations with a radiological meter. As I indicated before, our standard capability is based on the risk and at the present time, because it is not being transported through that area, we do not see a need to have a radiological meter at Narromine, so if this risk was going to occur with transportation then we would have to look at increasing our capability.

On further funding issues, presently, if we were to fund that through New South Wales Fire Brigades, we would have to reprioritise plans or projects at the present time, which may or may not be possible and I cannot comment on that, or we would have to increase our funding from Government or, alternatively, if it is a requirement from the Commonwealth, maybe the Commonwealth should cover the funding for that.

CHAIR: Do you believe that basic chemical, biological and radiological training has been delivered to firefighters in New South Wales to a sufficient level and sufficiently widespread to enable them to provide a safe and effective response to a transportation accident? I am quoting here from the Fire Brigade Employees' Union submission, which is a public document.

Mr HAMILTON: As I indicated before, we do have a standard training program for hazardous materials which now includes CBR. We have developed a training program which has been run through the fire brigade which personnel have been trained in and further refresher training is occurring.

CHAIR: This Committee will be meeting with the union at its next public hearing. I presume you have read their submission?

Mr HAMILTON: No, I have not read their submission.

CHAIR: I was going to ask if you had any responses which we could address.

Mr HAMILTON: I have not seen their submission, I am sorry.

CHAIR: As I said, it is now a public document and the union has made a number of comments. We will be asking the union to elaborate next week, so it would be of value if we had your comments and then we could take the matters up with them. The Committee secretariat will make sure you get a copy of that.

The Hon. CHARLIE LYNN: I would just like to give you a definition so that we are clear on what we are talking about here, and this is from the information, analysis and advice for the Federal Parliament from Information and Research Services. It is a document written by Dr Ian Holland on 18 August. He says:

Low level wastes are those with minor levels of contamination by radioactive substances such as laboratory waste and other materials that might come into contact with radiation sources. Special shielding is not normally required for transport and handling. The levels of radiation are sufficiently low that shallow and varying width containment is generally regarded as a safe method of disposal.

So that is what we are talking about. In the Greenpeace submission they are talking about these casks basically carrying material could be likened to a huge dirty bomb and the dirty bomb is defined "as a conventional explosive when it is used to disperse a source of radiation. The consequences of such an explosion can make under radioactivity are the source and the size of exposure." It says it is a well documented view held by the public in relation to radioactive waste that it could add to the attractiveness of spent nuclear fuel transports as a target for terrorist attack.

In your submission you say that the New South Wales Police is responsible for security of the convoy or the movement. With the terrorist threat, do you see a Commonwealth involvement now, and maybe a defence force involvement, to counter the threat in the movement of this low level nuclear waste and the possibility of it being regarded as a dirty bomb?

Mr HOWARD: Once again, as Mr Hamilton pointed out, in everything that we do - and while I cannot speak for the police, I am aware that they operate under the same principle based on risk management - if there is a need to seek Commonwealth support there is a mechanism to do that, both in terms of response to an emergency situation and to help them protect, but the details I am unaware of because of that security dimension being a police responsibility largely. Changes have been made within all the structures, including improving our own capabilities in the emergency management area, in light of the perceived new threat.

CHAIR: Mr Lynn a few times has used the term low level nuclear waste. The Committee is also charged with looking at the proposed transport of intermediate level nuclear waste plus the transport of spent fuel rods. Maybe there is an appropriate, different response given that level of waste that you could include in your comments as well.

Mr HOWARD: Again, it comes back to the same issue, it all must be risk based.

The Hon. CHARLIE LYNN: If there is a likelihood of terrorist activity, would you consider it to be imperative that the movement of any low level or intermediate or nuclear waste would therefore be a highly confidential type of operation in that if you were to make it public as to what time you were moving, when you were moving or what routes you would be moving it, you would be inviting or increasing the chance of a terrorist attack on that place. Would that be a fair comment?

Mr HAMILTON: That is one of the dilemmas that would be faced by the security agencies and also the public's perception and the community's perception, whether or not you keep it as a confidential classification or whether or not you are open and frank with the community and tell them what was going through their area. That is something that would have to be weighed up by the security agencies and also the Government.

The Hon. CHARLIE LYNN: Do you advise the community when you are transporting petroleum, gasses and fuels and so forth?

Mr HAMILTON: We do not transport them.

The Hon. CHARLIE LYNN: When they are moving through the area, are you advised or is the fire brigade advised of those movements?

Mr HAMILTON: No, it is not standard.

The Hon. IAN COHEN: Mr Hamilton, the Fire Brigades' submission advises that in 1997 the New South Wales Fire Brigade's HAZMAT unit escorted a waste shipment from ANSTO to Woomera. Would you able to inform the

Committee as to what the cost of such an exercise like that would have been and who would have actually paid for the escort? Perhaps you.

Mr HAMILTON: I would have to come back on notice with that, but I can inform you that the New South Wales Fire Brigades paid for that, paid for our own resources, but the cost of it I cannot tell you off the top of my head.

The Hon. IAN COHEN: Perhaps you would take the cost on notice and provide it to the Committee. It would be appreciated. Also we touched on the issue of going through a hot zone before, but we might have got a little sidetracked with other details. What is the Fire Brigade's response to an action that does involve of necessity doing containments in a hot zone, that is if a transport vehicle is sent through a zone which is above safe working levels? How do you deal with that or how does the New South Wales Fire Brigade deal with that?

Mr HAMILTON: Can I clarify the question, a transport vehicle?

The Hon. IAN COHEN: If it is a vehicle transporting nuclear waste for example.

Mr HAMILTON: Our procedures would be to establish a hot, warm and cold zone. The hot zone would be the area that is the contaminated zone and that would be done through detection. We would actually be able to identify the contaminated area through the detection. We would establish a warm zone outside of that area where we would put in place our decontamination processes and also our staging area for crews to be put in protective clothing to enter if required. We would also have outside that a cold zone, which is the exclusion zone. We would set up our command post, which would include agencies such as the New South Wales ambulance, New South Wales police and EPA. We would also be calling for specialist advice, and if it was a known shipment that we were talking about, we would have someone from ANSTO or the likes there as well to offer advice.

If crews were to be put into the incident, they would have a dosimeter and also a radiological detector, they would wear protective clothing, and if there was a spillage, we would then looking at what the spillage was and the mechanism to contain that substance, but it goes back to every incident is different. It depends whether or not we actually have a release, whether it is a release or a spillage. We would then deal with that accordingly.

The Hon. IAN COHEN: Would you be informed prior to any problems? If a level of response is required, do you feel there is adequate information there?

Mr HAMILTON: That process that I just provided to you is part of our standard operational guidelines for a hazardous materials response. The context of the question is whether it is an escorted load or whether it is something that we have a call to, such as a petrol tanker overturning, and that is an emergency

straight away and we would have to deal with it with those responses. As I said, every incident is different and has to be handled accordingly.

The Hon. IAN COHEN: You mentioned before about HAZMAT seeking protection, and I didn't quite get an answer in terms of protection from radioactive material in terms of the standard HAZMAT equipment. Does it in itself protect against - obviously it would against fire, but does it protect against radiation?

Mr HAMILTON: It would come back to, as I indicated before, the time, distance and shielding. So it depends on the level of radiation as to how long the crews would go into the incident.

The Hon. IAN COHEN: Does the actual suit -

Mr HOWARD: Yes, the suit will provide them, so you will not get any - as I said, you have got the protective clothing, respiratory protection and the vapour density. Any airborne particles will be contained on the suit rather than on the person.

The Hon. IAN COHEN: But not that the suit itself is protection from radiation itself, and I am just wondering on that point whether, given that the fire brigade could well be involved in that transport, does this mean that there needs to be recognition of more specialist equipment under these circumstances?

Mr HAMILTON: If we were looking for a long-term exposure, which the fire brigade would not be doing that, long-term exposure, but if you were doing that for an extended period of time we would have to look at extra suits.

The Hon. IAN COHEN: Given that we do not know what is being called long-term exposure and what is short-term. I appreciate that you are monitoring it with your equipment.

Mr HAMILTON: The point that I am making is whether you go back to those definitions of low level and high level hazard, and that would make the difference that we would be taking into account.

Ms JUDGE: What is the difference between a radioactive spillage and a radioactive release? Is there a difference?

Mr HAMILTON: The way that I would explain a release as opposed to a spillage is that it depends whether there is an airborne hazard or a substance on the ground.

Ms JUDGE: Following on, and I know I am still labouring this, but are you aware of any problems that have occurred with the transport of radioactive isotopes for medical or industrial purposes in Australia and do you have any concerns about the way that they are currently transported?

Mr HAMILTON: I am not aware of any incidents at this stage and, as I said, transportation is occurring on a daily basis. They are not communicated to the fire brigade. Whether or not EPA is getting that information, I could not advise.

CHAIR: The Committee secretariat provided to you earlier in the week an extract from a consultant's report in the Sutherland Shire Council submission which argued that the Commonwealth Government's proposals lack a detailed management plan and listed a range of issues which should be included in such a management plan. Could you please comment on that material?

Mr HOWARD: Yes, thank you, Mr Chairman, I received a copy of that extract. It is a bit difficult because at this stage we have not been approached as an organisation, to comment formally, but it seems to me that that draft submission makes a very good checklist of the sorts of things that we would need to do to arrive at a jointly acceptable protocol for the proposed movement of that material. Obviously a lot of the answers are not there because we do not know the Commonwealth's policy at this stage, but I think the authors of it are to be congratulated because they have helped us with a task which is yet to come, that is, to develop a protocol which is acceptable to our own Government, and I think it will be of great help to us.

CHAIR: If there are any matters in addition to what is listed there, after you have had an opportunity to consider it, that you believe should be included in such a protocol, I think the Committee would welcome you writing back to us and letting us know.

Mr HOWARD: Thank you, Mr Chairman. I only have an extract at the moment. The Committee secretary has undertaken to provide me with the full consultant's report so that we can use it for that purpose.

CHAIR: That shall be done.

The Hon. IAN COHEN: I am wondering if either of you are aware of liquid high level waste which is produced at ANSTO during isotope production which also needs to be transported through Sydney at various times. Are you aware of that?

Mr HOWARD: I am not, no.

Mr HAMILTON: No.

CHAIR: Some of the submissions we have received have argued that rail and air transport are better options than road transports for the Federal Government's proposals. For example, a number of submissions have advised that road transport is statistically more prone to accident than other modes. Do you have a view on that matter?

Mr HAMILTON: No.

CHAIR: Your submission identifies the need for close community consultation and awareness in addressing community perceptions and fears. Has the lack of consultation and awareness been a problem in the past, in what way, and who might be best placed to implement such an approach?

Mr HAMILTON: That was in the fire brigade's submission indicating that if there was going to be a transfer through western New South Wales the community should be advised and should be consulted. An example of that is the Sutherland shire where there is a community group that does get involved, as Mr Howard indicated, being included in consultation and raising issues and getting an understanding, so that is what we were raising in that comment, that it should occur across the whole gamut rather than just locally. Who should do it? I would suggest probably the local emergency management committee.

CHAIR: The Commonwealth Department of Education, Science and Training stated in its submission that some 15 cubic metres of radioactive waste is stored at various industry, hospital and university sites. Detail of the material is scant and New South Wales would benefit from an audit of this proposal. Do you see any merit in such a suggestion?

Mr HAMILTON: Yes.

Mr HOWARD: Yes. There is also, Mr Chairman, a committee which has been formed very recently, a national committee, that is Commonwealth, States and Territories, to have a look at all aspects with regard to what they are calling hazardous material. It is dangerous materials of all type. There is also a review in New South Wales undertaken, I understand, by the Environmental Protection Authority in respect of their regulatory role with nuclear material.

(The witnesses withdrew)

(Short adjournment)

ALAN PENDLETON, Mayor, Blacktown City Council, 65 Flushcombe Road, Blacktown,

NICK LALICH, Mayor, Fairfield City Council, PO Box 21, Fairfield, and

MALCOLM TULLOCH, Mayor, Holroyd City Council, PO Box 42, Merrylands, sworn and examined, and

CECILIA ANTHONY, Councillor, Liverpool City Council, 1 Hoxton Park Road, Liverpool, and

ELIZABETH ANN JEREMY, Liverpool City Council, 1 Hoxton Park Road, Liverpool, affirmed and examined:

CHAIR: We have received submissions from each of the councils. Do each of you wish your submissions to be included as part of your sworn evidence?

Mr PENDLETON: I would like the submission I have here this morning to be tabled.

CHAIR: This is a submission we have already received?

Mr PENDLETON: No, this is -

CHAIR: We will get to that in a moment. Would you like the submission we have already received to be included as part of your sworn evidence?

Mr PENDLETON: Yes.

Mr LALICH: Yes.

Mr TULLOCH: Yes.

Ms ANTHONY: Yes.

CHAIR: I understand a number of people have brought other statements. Would you like those to be tabled?

Mr PENDLETON: Yes, that is the one I was talking about.

[Submissions from Blacktown City Council and Fairfield City Council tabled]

The Hon. CHARLIE LYNN: I direct this question, firstly, to Liverpool City Council, as a nuclear free zone and opposing any movement of the transportation of nuclear waste through the Liverpool local government area. We have received a submission from ANSTO to say that ANSTO sends about 2,500

packages per month of radioisotopes for medical and industrial uses to destinations around Australia and overseas. I would assume that some of these go to Liverpool hospital.

Do you oppose the movement of those radioisotopes to the Liverpool hospital?

Ms ANTHONY: No. It is our understanding though that in terms of transportation back out of the hospital, Liverpool hospital does not send any radioactive waste back to Lucas Heights. What is coming to the hospital is a particular grade of radioactive material that dissipates very quickly - excuse my lack of technical terms - once it has met with the other stuff that they use at the hospital. So what is arriving at the hospital has to then be mixed to create the material that they use in the nuclear medicine section of the hospital. So we are talking about slightly different things.

The Hon. CHARLIE LYNN: I was of the understanding - I am also not a technician - that the radioactivity of the isotopes was greater than the radioactivity of the low level waste that we are talking about.

Ms ANTHONY: I am not sure on that point, but I understand that the waste being talked about for transportation from Lucas Heights to South Australia is of a completely different grade and a higher grade. So we are, again, talking about two completely different things.

The Hon. CHARLIE LYNN: We have the definition of low level nuclear waste, which is basically contaminated clothing material and so forth, and it is less than the radioactivity of the isotopes that are delivered around the State on a daily basis. I am just wondering about your opposition to that as a nuclear free zone.

Ms ANTHONY: My understanding - and again I apologise for my complete lack of technical terms, I didn't do well in science at school - but again we are talking about two completely different things. I do not think that any local government organisation would oppose the sending of low level material that has to then be mixed at the hospital to create what is used in the radiation therapy. That is one thing that I do not think most councils would have a problem with, but we are talking about something completely different with the transportation in bulk of a much higher grade waste through our LGA, which opens up a whole other range of issues with regard to impacts in the case of accident, theft or hijack, which is something completely different to the package going -

The Hon. CHARLIE LYNN: Could I put it to you if the radioisotopes being delivered around the State on a daily basis were not considered to be more hazardous than the low level nuclear waste that is being transported to a place in South Australia, what would be the council's position then? Would it object to the lower level waste but still allow the radioisotopes at the higher level activity if that was the case?

Ms ANTHONY: My understanding of the reality of the situation is that what is being sent already is something that cannot be used in the form that it is in to create something else that can be used for other means. It has got to be sorted out at the hospital to create something that is probably of a higher grade. I do not know how they transport from Lucas Heights to the 2,500 destinations, and there is another 2000 packages that go out to other places around the country, but it is a different grade.

The Hon. CHARLIE LYNN: Do you have any idea how much waste is stored at the hospital?

Ms ANTHONY: My understanding is that the hospital does not send any waste back to Lucas Heights. We have had some technical advice, which I can confirm for you, that what happens in the hospital is basically what they use, it disappears - to be less than technical - through body waste. Once it has been used for treatment of a particular individual and clearly it enters their system, it does its bit and comes out the other end, to put it bluntly.

CHAIR: Do you see any resourcing implications for any of your councils arising from the Federal Government's proposals? The things that we are looking at - The Hon. Charlie Lynn has mentioned the new proposed movement of low level waste; there is also a proposal to move intermediate level waste; and there is also, we are advised, the transport of spent fuel rods from Port Botany. There is a whole range of agencies it is suggested would be involved in that. Do any of your councils see resource implications for yourselves as local government areas?

Mr TULLOCH: Holroyd Council is concerned that we have some major transport links that run through our city, being the Great Western Highway, the M4 Motorway, Woodville Road, the Cumberland Highway, potentially Prospect Highway. We have the western and southern rail lines. We also have the Sydney Water pipeline that runs through the middle of Holroyd and the Prospect reservoir at our western border that supplies drinking water for Sydney.

We have major concerns about the transport of nuclear waste, high level nuclear waste and medium and intermediate level waste through our community. We are one of the most densely populated cities in western Sydney and I do not know, regardless of the evidence I have heard this morning, how people in our community are going to be evacuated out of their homes if there is a potential for this accident to happen within our community. Those people would be taken out of their homes in the middle of the night and told that they cannot go back for a certain period of time because a HAZMAT crew has now cordoned off their home and their city and asked them to stay away until such time as they believe it is safe for them to go back again.

I think it is absolute lunacy that we have a situation where we are going to transport this high level waste through a very densely populated area, right in the middle of Sydney, right where the drinking water for Sydney is pumped through the system. We have some major concerns. We have an SES, we have

our emergency services; they are not equipped for this, and nor should they be, because there should not be any of this substance or this material coming through our community.

CHAIR: If the Federal Government chooses to do it, what would your local council need to do in terms of its resource allocation? I am just trying to get a handle - there are two issues that this Committee seems to be coming down to. One is there is an issue whether it should be moved or not, and that ultimately will not be our decision, but we can certainly make a recommendation. The second thing is, if it is going to be moved, then what sort of protocols need to be in place, what are the resource allocations?

Mr TULLOCH: You mean a consultation with the local councils that we are going to have the waste moved through our city. I would have to suggest that we would have to go back to our community and be consulting the community about how they want to handle it. I am sure the position they are coming from is they do not want it.

CHAIR: Have you been consulted at all?

Mr TULLOCH: No, and that is the other issue, the clandestine way that the Federal Government has gone about this particular issue. I first heard about it through the Local Government Association at a special meeting that was convened, that there were concerns about the transportation and the decommissioning of the Lucas Heights reactor. That sent alarm bells through my community when I communicated that back to them, and I find it absolutely abhorrent that we have not been consulted at all about potential high level risk to this community and their health and safety, that the Federal Government has neglected to consult with its community first before they get into the planning stages of where a repository might be and how it might get transported to it.

CHAIR: Any other comments?

Mr PENDLETON: Well, I would support what the Mayor of Holroyd has said. At Blacktown our major concern is that we do not believe particularly that the route that has been identified, being the Great Western Highway, is the safest route to transport material, if it has to be transported. We are the most populous local government area in New South Wales; we have 280,000-odd people at the moment. There is a 700 hectare industrial site adjacent to the Great Western Highway which is being developed in the next five to ten years and our population will grow to some 400,000. You are going to be moving this material down probably the most populous highway that you could get, which is frequently the subject of many accidents, from listening to the traffic reports of a morning, and I know it will be taken at times of the night when it will not be as busy and it is not a Blacktown problem once it leaves Blacktown, but I just cannot believe that they would go over the mountains and not the Hume Highway.

The other issue is that Blacktown council has never been consulted in relation to transportation of any nuclear material, particularly when the St Marys ADI site was being used for a repository for this material, which only came to light when they had to decontaminate the site in relation to its release for urban development, so my community and I certainly share the concerns of what could happen should an accident occur with this material.

Mr LALICH: I agree with my three neighbouring councils. The Fairfield council also has never been informed and we do not think we ever will be. We feel that this whole issue is a Federal Government issue. The waste is produced by a Federal Government body. The Federal Government should take care of all this waste and they should pay for the disposal of this waste, wherever they wish to take it to. I agree with the Mayor of Blacktown that it should not go over the Mountains, it should take the shortest and quickest possible route to Woomera.

We recognise, going back to Mr Lynn's first question, that the nuclear industry plays a very big part in the medical field and we understand the importance of public health regarding that, but out of the 1300 cubic metres of waste that is going to be transported out of Lucas Heights, less than five percent is used for medical purposes, so we do not feel that all that waste is for medical purposes.

Could I just state that we had an incident some six or seven years ago, and I stress it was an incident, it was not a spill. I think it was DMR people working on the roads, testing the density of the pavement, and they used a special instrument on the back of a truck which apparently has radioactive material inside it. It was a night-time job. The truck reversed, cracking open the container that held this material. The incident was reported and emergency services responded. Residents were evacuated from their home. This was, as I indicated, in the middle of the night. No temporary shelter was made available for the residents, many of whom were in distress. The emergency was contained and no leakage of radioactive material was reported. The incident created significant ongoing community concerns and uncertainty. No counselling or follow-up health checks to reassure residents took place. The agency responsible for the incident was responsible for dealing with the incident together with emergency services. The whole thing was hushed up and forgotten about and nothing ever happened.

We believe these accidents can so easily happen that by transporting these things by road we are asking for a lot of trouble. My own personal opinion on this - it is not a council issue and nor have we discussed it in council - is that I do not see why we could not do a feasibility study of shipping the stuff by aircraft, by Hercules or by helicopter which can carry four or five trucks in its own body in one hit and travel over low populated areas, and transporting it from the site to Woomera in one hit. That would be, in my opinion, a far better way, but we have no assessment of the viability or the possibility of that happening. I know we have talked here about terrorist attacks and all the rest, but there is a very low possibility of that happening in this country. It has been increased since the John Howard decision to go to war, which a lot of us do not agree with,

but I do not think that would ever happen in this country, so I have no fear of that type of action happening. Having said that, we still have to have that contingency at hand.

Ms ANTHONY: With regard to what the other councillors have raised about consultation, we as well have not been consulted as a council in terms of our community response. We also have not been consulted as a council in terms of whether we have a response team or the ability to create and train a response team. We do not have that facility already up and running. We can work as a council in an emergency situation with fire and with other major disasters that we know about and we are trained for, but we do not have an active response team for a nuclear spill or accident or explosion of radioactive material. We have not been asked if we can commence training people; we do not know how to train people. That, in terms of allocation of resources, is a significant issue for Liverpool council because that will cost us money, but we do not know how, where, what or how much.

Ms JUDGE: Some councils have declared themselves nuclear-free zones and I am just wondering what would be the legal status of these declarations and consequent implications if this transportation were to proceed and, furthermore, what is the effect of that status currently on the movement of isotopes for medical and industrial uses through these local government areas? I mean there is no point having a sign up saying you are a nuclear-free zone if it is just window-dressing or to be seen to be saying we are doing the right thing by our community if it does not have any legal status. I am just wondering about the implications of that.

Mr PENDLETON: We have at Blacktown, in our local environmental plan, a clause in relation to the storage and transportation of radioactive waste material which is referred to in section 8(3)(b) of the Act pursuant to a licence under the Radioactive Substances Act 1957. That is in our local environmental plan. Whether that gives us any more legal right, I do not know, I would have to take that on notice.

CHAIR: Would you please, if it is possible to do so, because it has been an issue raised with us a couple of times.

Mr LALICH: I agree with the Mayor of Blacktown and I have no doubt that most councils probably have that in their LEP. Personally, legally, I think there is absolutely no binding on the Federal Government; they will do what they want when they want, no matter what we say. Some years ago we decided not to put the signs up, we felt they were a waste of resources, people got sick and tired of them and started using them as shooting targets when they were going out to the country. It is warming for your people to think, well, our council has declared a nuclear-free zone, but the Federal Government takes absolutely no notice of any of those signs and transports this material through our city willy-nilly, whenever they feel like it.

Mr TULLOCH: The nuclear-free status of Holroyd is only a recent occurrence. We have a situation where we have gone through the consultation process, we have advertised and we have had no negative responses from the community. We go to hang the signs up to indicate to those people who are passing through our community that our community has a concern about the transportation of hazardous material and the RTA will not let us put them up. We are going to put them in our little streets for our residents to see them, but unfortunately there is a policy of one of the government departments that will not allow us to put those signs up on the major entrances to our city. We would like to raise that issue. We think it is a major statement from our community about the position it finds itself in with regard to a nuclear-free zone and we would feel that that would be honoured by that government department and respected in that regard.

As regards legal status, local government does not write the laws of the country and the State and perhaps that might be something that this Committee may wish to investigate about how we may enforce nuclear-free zones in the local community. Given that there are useful purposes, medical purposes for some of these, there may be some sort of distinction between those purposes as opposed to high level and intermediate level waste being transported through communities and the volume of that waste. Regardless of whether it may be low level or high level, if it is carried in any great volume the potential and the risk to the community is absolutely heightened.

CHAIR: Councillor Anthony?

Ms ANTHONY: Liverpool council and Liverpool as an area has been a nuclear free zone for I think about 15 years, so we have what has become a reasonably historical stand on this. We are well aware that we have no legal rights to enforce what is basically a policy decision at the council level, which we believe generally reflects the views of our community, and this is no comment on the residents of Fairfield whom we have never had a shot at, we may get the odd bit of graffitti, but this is something our community feels very strongly about. The council has over the years done various things beyond just having a sign and putting it up. We have written to the Federal Government on a number of occasions stating our opposition to the site of the nuclear reactor, we have written to the Federal Government protesting our opposition to French nuclear testing in the Pacific. It is a position that Liverpool council has continued to have through the various changes of the council as the years go by. It is one thing that has remained constant because it is what our community expects of us.

Mr McGRANE: The Mayor of Fairfield has given his personal point of view in regard to the radioactive waste problem, the transportation, by what means and where. Could I ask the other three councils have they got any policy in regard to that matter, waste management in regard to transportation and how?

Mr PENDLETON: From Blacktown's perspective, I would say that the mode of transport should be the one that is considered the safest to do, whether

it be by air, rail or road. That is an assessment that has to be made by many people and I think when all the assessments are done it should be the safest way irrespective of the cost of it.

CHAIR: Would anyone else wish to comment?

Mr TULLOCH: Holroyd's position is we do not support the transportation of nuclear waste, whether it is through the air, under the ground or across the land. We do not support the transportation. The issue I would suggest is it has to be processed on the site where it is created. To transport it through somewhere else unprocessed to some facility to process it I do not think is a rational way of dealing with the issue.

Mr McGRANE: In regard to your Federal member, surely you have had close consultation with your members in regard to these matters.

Ms ANTHONY: I have not personally.

Mr TULLOCH: Yes, we have written to our local members.

Ms ANTHONY: One of our local members is a former mayor of council, so I certainly think he probably hasn't changed dramatically.

Mr PENDLETON: Blacktown itself has been declared a nuclear free area for the same as Liverpool, the last 15 years, and obviously we write to our Federal members and they move those motions or resolutions on to the appropriate place, but the answers that come back are never what the council wants.

The Hon. IAN COHEN: There was an earlier report to the Committee and the discussion was about the Fire Brigade escorting a waste shipment in 1997. It had responsibility to escort that from ANSTO to Woomera. We asked them what the cost was and they believed it was covered by the New South Wales Fire Brigade. In terms of that 1997 shipment, were any of your councils informed of the nature of that shipment? Do you recall that?

Mr PENDLETON: I am not aware of it.

Mr LALICH: No, I am not aware of it.

Ms ANTHONY: I don't know. I would have to check.

Mr PENDLETON: Perhaps I will take it on notice and get back to you.

Mr LALICH: I take it from my staff that we were never informed.

The Hon. IAN COHEN: Do you have any perspective for the Committee as to how you might improve communications regarding shipments from ANSTO

through your local council area, how you might deal with it in terms of the potential for this now occurring on a regular basis?

Mr LALICH: Yes. Our position is at Fairfield City Council that we feel that any shipment, whether it go by rail or by road, that there must be an emergency response, a specialised emergency response team travelling with the convoy, not to look at our fire brigades, our SES people to take care of the issue, as we heard this morning, with rubber gloves. We have to have specialised people instantly there at the time to make sure this material does not spread or that people drive through it or whatever, and we do not agree that our community should be used for that. We feel the Federal Government should fund that, should have these people travelling.

Also the other issue is, as we learnt in our first incident some years ago, that we have a multicultural community and there is no point in an Aussie guy getting out there and yelling out to the Vietnamese and all the others, "Go home, go and sit down the park", because they have no idea what they are talking about. What you do is you upset these people and then later on when they go home, don't tell them what happened or why they were thrown out of their homes. So we feel that the Federal Government must educate people and have strategies in place that address our multicultural communities within all our areas, not only in Fairfield. We have 130 communities in Fairfield, so we have a wide variety of people to cover and make sure they understand what is going on.

Ms ANTHONY: Just briefly, I have already touched on the fact that we do not have a response team and have not been given any leads or advice from the Government bodies in how to start that process. We also do not know anything about the code of practice for the transportation of the waste. That is something that it is caught somewhere in what appears to be quite a self-regulatory process between the Commonwealth Government, the Lucas Heights reactor and the Government committee or whatever their formal title is that oversees nuclear waste in Australia. Our concern is specifically about what happens in Liverpool if there is an accident. I know that it is fairly clearly stated in the submissions that there has not been an accident or what is called a major incident to date. We are also very concerned about the potential ability to steal or to hijack either a couple of containers or specific containers with waste off a truck, or an entire truck, for use in I think what is being known colloquially these days as a dirty bomb, which does not take a rocket scientist to put together. It is quite a simple thing.

Liverpool is built around the Georges River. We have a number of tributaries that run through our LGA. The two main ways to send radioactive particles out into the general environment is through water and air. We have a number of bridges over our waterways. It would be a perfect place to simply stick some gelignite, or whatever you use in these sort sorts of situations, and blow up a truck to release the material into the waterways. Once that happens, in a sense an active response team is almost pointless because there is little that you can do once that actually happens. Again, these are things we are not

being asked to comment on by the Federal Government, and that concerns us greatly.

The Hon. IAN COHEN: The State Emergency Services this morning mentioned something that the Greens were discussing prior to the last election about the distribution of State-wide iodine tablets in the locale of the Lucas Heights reactor. Would your councils have a policy on that type of defence option in terms of any substance?

Mr PENDLETON: I would suggest from Blacktown's perspective that, firstly, to have a response team capable of looking after a nuclear spill for every local government area would be an absolute waste of resources from local government's perspective, because each area that it went through would have to have a response team. It would be a duplication. You would heighten the fear of residents if you had to have such a response team, and I think the provision of those tablets would almost do the same thing. I would support what the Mayor of Holroyd said, that this team should travel with the material so that it is there at the time, should there be an incident or accident.

The Hon. IAN COHEN: The fire brigade has indicated that an alternative to a section by section response to a transport emergency would be to provide a fully equipped convoy escort. You have mentioned this type of approach this morning. Do you see a way of actually achieving that; how you, as local government authorities, would work toward lobbying for that?

Mr LALICH: If I may answer that, I really do not have any problem with the fire brigade being the specialised body, as long as they are properly trained and have all the equipment, but that they follow the convoy so that we do not have one in Sydney, then one as you get further in to the country and over to Woomera, that the one specialised body follows all the way through, whether that be the SES people, whether that be the fire brigade or whether that be the army, which I feel should be in charge of the whole issue because we are talking of terrorists, we are talking of terrorist attack, we are talking paramilitary, you are getting back to it being an army issue. It is a Federal Government issue. A Federal Government body produces this waste and the Federal Government should take care of it from start to finish, whether they use the fire brigade or whether they use their own bodies, but one body to sit with the convoy and go all the way.

The Hon. CHARLIE LYNN: In the submission from the Holroyd City Council, which we got from your general manager, he made the statement that, because of this, Holroyd City Council is gravely concerned about the result of lack of preparedness of emergency services to respond in the event of an accident. Earlier we heard from the heads of the New South Wales State Emergency Management Committee, Horrie Howard, and the fire brigades. Did they answer any of the questions that you may have had, or do you feel more comfortable having heard what they have said? It seems to me that they are in the development phase of a plan and I am sure that, being the State Emergency Management Committee, there would be consultation with all councils in the

area. I just want to get your response to their input to the Committee this morning.

Mr TULLOCH: Our concern came from the Fire Brigade Employees' Union and the submission that they made in regard to their lack of preparedness, but I think you have put the cart before the horse. Catastrophes happen within our communities. Councils have been vested with the planning responsibility at a local level for bushfires, for storms, for wind, for floods. In fact council has to plan in our local area that once in every 100 years there will be a catastrophe of a certain level. We are planning for the catastrophe or we have identified the risk and we have planned for it. The fire brigade attends when roofs have blown off and trees have been knocked over and fires have occurred. The damage is already done and the catastrophe has already happened. That is trying to treat the problem after there has been an accident. With regard to this, once it has happened, it is highly toxic and the area is unable to be entered into. The whole idea of this process is that there should be a plan to say that it is not ever going to get to that stage, that we are never going to bring that particular toxic or highly dangerous substance into a densely populated area, unless you want council to lead-line every home that is built from now on and shield every individual within that community on the proviso that perhaps once in 100 years, after 250 trucks tear down the highway every year, one of those trucks has an accident. We do not have the opportunity to have the planning in place to protect the community from that catastrophe. I think you have the cart before the horse.

The Hon. CHARLIE LYNN: I was asking for your view--

Mr TULLOCH: You got it.

The Hon. CHARLIE LYNN: Well, not on the preparedness of the emergency services. Do you have no confidence in our emergency services?

Mr TULLOCH: I have great confidence in my local emergency services to deal with flood, to deal with wind, to deal with fire. I do not have enough confidence in my emergency services that they are equipped to handle a nuclear catastrophe, whether that be an explosion or whether that be from transportation of nuclear waste. They are not prepared for that catastrophe.

Ms ANTHONY: There was a program on the ABC I think on 11 September, on the Catalyst program, and it was actually a broadcast of a BBC production called Horizon. It was a half-hour program on dirty bombs. If I can perhaps bring into context, in terms of release into the atmosphere or waterways of radioactive waste, for whatever reason, and with regard to what an emergency response team or the fire brigade could do, they did some testings on two examples, one in London and one on the Washington subway, and what they came up with was that it would take 20 seconds for particles in the atmosphere to travel 100 metres, one minute to travel one kilometre and half an hour to travel 10 kilometres, and it is actually once the air and the smoke starts to cool - this was about an explosion - and the particles start to drop down, so in that

context I am not actually sure what an emergency response team in whatever form could do, no matter how good they are. I know that our emergency services are excellent at everything they do. This is not something they do yet.

Mr LALICH: To answer Mr Lynn's question, I was here when the fire brigade and the SES guys were being interviewed and gave their submission. My understanding was that the preparedness of the fire brigade is well and truly in hand in the Lucas Heights area, but it is not adequate in other areas. That was my understanding and that is why we say we need a specialist team and, as the Mayor of Blacktown indicated, we do not want duplication of these services but one specialised response team that travels with the convoy throughout the whole route.

Mr PENDLETON: Also, in relation to separate response teams, as to whether each of those people is available at the time that the incident or accident occurs, you really need people there with the material.

Ms JUDGE: I think it is worth also bringing to the Committee's attention that councils annually pay a levy to the fire brigade, which is their ratepayers' money. I think Strathfield council pays about \$450,000 a year to the fire brigade.

Mr PENDLETON: 13.8 percent I think.

Ms JUDGE: Are the councils going to bring this up at the forthcoming local government shires conference as an issue?

Mr TULLOCH: I have asked as a motion going to the local government conference in Albury that we ask to have the fire brigade levy separated out of the rates within the community because the fire brigade levy goes up far quicker than the CPI and that actually cuts into our finances. Given the cost shifting that goes on, if they are then asked to fund these catastrophe type situations that will increase our fire brigade levy and impact greatly upon the rates that we will be able to spend on community services that we have to spend them on, libraries and childcare centres will not be funded because we will be paying for these crack teams that race out at the drop of a hat to tell everyone that it is contaminated and to keep away.

Mr LALICH: If we are going to have individual response teams all the way down the track, the Federal Government moves this waste without telling anybody when it is going because of security issues - you could have terrorists or anybody else sitting there waiting for the convoy to come, so they are not going to tell us when they are going to come through - and, as Mayor Tulloch said, what do you do? You get people out of bed at midnight saying, "The truck is coming, get up and get going", and the bloke is not home. You have to have a dedicated team.

At the end of the day, the whole issue at Fairfield City Council is that New South Wales should not be paying for this, neither the State Government

nor the councils. This should be a Federal Government issue. They should be paying for and handling the whole issue. We should not be expecting our communities to pay for a waste that is produced by a Federal Government body.

Ms ANTHONY: Could I finish on this note, because I know we have concentrated a lot on the ability of the fire brigade to deal with this. I am assuming this has come out of some of ANSTO's submissions. ANSTO keeps saying in reports and various documentation that the only risk is about impact, and in a situation like this, in a sense impact is the least of the risks. As with hazardous chemical accidents, there are going to be impacts, there is going to be an explosion, people in that immediate vicinity are going to be severely injured or probably killed, but for a hazardous accident, that is where it ends and there is containment. This is something that once released into the environment by the atmosphere or the waterways is something that is going to continue as a risk for generations. This isn't just about how quickly the fire brigade can get to something to put a fire out or to contain it. Once it is released, there is no containment that can be controlled and it is something that is not just going to affect the generation that is exposed to it, it is going affect their future generations via their DNAs. That is something the fire brigade can have absolutely no control over.

(The witnesses withdrew)

WILLIAM MORGAN WILLIAMS, Vice-President, Medical Association for Prevention of War (MAPW), 100 Surf Coast Highway, Torquay, Victoria, affirmed and examined:

CHAIR: Is it your wish that your submission be included as part of your sworn evidence?

Dr WILLIAMS: Yes.

CHAIR: Do you wish to briefly add or elaborate upon it?

Dr WILLIAMS: Yes. Thank you very much for the opportunity to speak to you. The Medical Association for the Prevention of War certainly welcomes this inquiry. By way of introduction of myself, I am the Vice-President for the MAPW. I am also here in the capacity of the public representative on the Radiation Health Committee, which advises ARPANSA, the Australian Radiation Protection and Nuclear Safety Agency. In my day job I am a clinician, a general practitioner. I work in a rural community, so I am well versed in community and public health matters as well as being regularly engaged in resuscitation and stabilisation of critically ill people. I have also appeared as a specialist panelist for ARPANSA with regard to its construction licence for the proposed new reactor.

The Medical Association for Prevention of War is in a purely international position for prevention of nuclear war. We won the Nobel Peace Prize in 1985 for our work. Our main game is prevention of war obviously and our principal focus is the abolition of nuclear weapons, but we are concerned about this issue that is before us today because we reject the artificial distinction between military and civil applications of nuclear technology. The blurring of that distinction has been abundantly obvious since September 11 and October 12 last year.

We are not an anti-nuclear organisation as such. Many of our over 800 members are radiologists and nuclear physicians. We have some very prestigious medical scientists in our ranks. As I said, I am a GP. I not infrequently refer people for nuclear medical reasons for bone scans, lung scans and so forth. However, to come to the crux of the matter, we feel that the issue about nuclear waste management and radioactive waste management is perhaps best understood in terms of the gushing tap scenario. If you walk into a room, there is a tap on and it is flooding the room, you don't reach for a mop, you turn off the tap. That is the first thing you do.

In Australia we are in a fortunate position. If we want to we can reduce our radioactive waste problem in a rapid way by terminating, mothballing the current nuclear reactor in Sydney and not building a new one. We feel that the Lucas Heights research reactor is in fact the radioactive waste producer and in reality it is a de facto store for not just low and intermediate level waste but high level waste in the form of spent fuel. There are many rods sitting there. They

are hot. They will remain radioactive for a long time and they can sit in their storage pool for up to ten years before being sent elsewhere for reprocessing. That constitutes a store. So it is right up there at the very forefront of the issues that are confronting this inquiry.

Secondly, the reactor itself constitutes a significant risk in terms of the potential for accidents and the potential for sabotage. I have studied in great detail the documents provided by ANSTO and ARPANSA, the Department of Education Science and Technology, for many years and I remain convinced that there are quite demonstrable situations in which there would be a release of sufficient radioactive isotopes into the community of Sydney that would constitute a serious health danger for a very long time.

The most obvious one is that of radioactive iodine 131 which is incorporated into thyroid glands when we are exposed to it, and when we are exposed to radioactive iodine in our thyroids, it potentially precipitates cancer of the thyroid, and in small children and in foetuses it is a very high risk, it is not just a small risk, it is a very high risk. Certainly, some of the scenarios described in ANSTO's literature within the last 20 years would precipitate levels of radioactive iodine in the community which would necessitate instantaneous administration of potassium iodine sodium tablets, which has been discussed by previous presenters. There is only one way to make sure that people, particularly children, get the stabilised iodine medicine quickly enough and that is to make sure it is in the medicine cabinets at home. The substance is safer than Panadol, it is safer than iron, which women often take in pregnancy or if they are anaemic or whatever. So it is not a dangerous substance. It should be certainly in the medicine cabinets of every house within at least five kilometres of this area. It is a small reactor but it contains a significant quantity of radioactive isotopes.

What would happen if we closed down the reactor? Would that be the end of the vibrant nuclear medicine industry in Australia? No, not at all. It's a furphy. The medical fraternity, if you like, has been used as a trojan horse for the nuclear industry. We do not need to build a nuclear reactor to have a high quality nuclear medical industry. At the moment we already import substantial quantities of isotopes for our medical capability. When the reactor is out of service we can have these up to three months at a time. We import it. The nuclear medical institutions around the country are oblivious in fact to whether it is coming from Sydney or whether it is coming from Canada. 60 percent of the world's isotope supply for medicine is produced in one reactor in Canada. The United States, the United Kingdom and Japan all import a large quantity of their isotopes. There is a widespread distribution market; it is simple, it is easy, it is relatively safe - I would not say it is totally safe. Talk to people in New Zealand. They do not have a reactor. They have a very high quality nuclear medicine capability. Talk to people in the United States, the United Kingdom and Japan. Talk to people in Canada. We need one or maybe two reactors in the world to produce enough radioactive isotopes to keep the best quality medical services available to human beings throughout the world, let alone in Australia. That is the basis of our submission.

The other two issues I will just touch on briefly. The question about dispersed storage: As it stands now, there are many facilities all around Australia that are storing radioactive waste. If there is a problem with them, we should fix it now. That is the point. We are not going to get rid of those storages because the store, if we build one, in South Australia, or the repository I should say, or a store, is not going to obviate the need to continue to store it on site at the Royal Melbourne Hospital or at the Peter McCallum Clinic. You will still need to do that as well. The point is that you are just creating another problem.

You are creating the vast problem of transport as well, which is my final point, whereby as has been explained I think in considerable detail in many other submissions you increase the risk. If you start carting it around the community you increase the risk through terrorism, sabotage and obviously through accidents. It is not just low level waste either that would be going to a repository, it includes things like strontium, caesium and tritium, potentially uranium and plutonium. Strontium, for example, is treated by the human body much the same way it treats calcium, so you incorporate it into your bone. It causes cancer of the bone. It is not something that we should be transporting around the community if we do not have to.

In summary, we cannot turn the tap off, I believe we do need to still have some nuclear medical facilities, there is no question in my mind or in this organisation's position, but we could reduce that gushing tap to a dripping tap, and I would suggest that you need to recommend to the Federal Government that it stops using this form of political emotional blackmail that has been used to encourage people to think that if we do not have a dump in South Australia, if we do not have a new reactor in Sydney, we will not have a viable nuclear medicine industry. It is a fallacy.

CHAIR: You have touched on something that I know a number of Committee members have been trying to get a handle on. We are thinking of the issue of low level waste; we are also talking about intermediate waste and the transport of rods as waste. One of the indications that keeps coming to us from some people is that transporting low level nuclear waste is really not anything to worry about, that everyone is affected by radiation all the time, every day, and it has been put to us that this is gloves and just general detritus and, if something happened, it really would not be that much of a problem, it would be collected and put back on the truck. The question I have for you is: What are we actually talking about? I will not even go into intermediate or rods, because I think there is a general consensus that that is a problem, but what are we actually talking about in terms of the medical implications of a spill of low level waste?

Dr WILLIAMS: Well, it is relative, it is a numbers game. Radiation causes damage to human DNA, so the DNA has to be exposed to that radiation. If it is low level radiation it is not going to be as dangerous to your DNA as intermediate or high level waste, but it is not true to say that there is no danger attached to it. It is simply not true to say that.

The Hon. IAN COHEN: From a medical point of view, you mentioned that medical isotopes were a Trojan horse for the movement behind the Lucas Heights reactor and the extension, the new reactor. Could you give the Committee your opinion as to why there is such a drive for a new reactor on this site?

Dr WILLIAMS: Well, I think that is open to speculation. Certainly, as I have said, I believe that the real reason is not for medical purposes, and there have been other reasons proposed such as if you maintain a nuclear capability you will retain the ability to make nuclear weapons. There are people in Australia who would like to do that. If you look at it on an historical basis, and don't get me wrong, I am not saying that that is why the Federal Government is doing it now, but if you look at it historically, Australia wanted to have nuclear weapons back in the late 1960s, early 1970s. John Gorton was very keen; Harold Holt was very keen for nuclear weapons. They wanted to have nuclear power and they started building a reactor. There is a concrete slab at Jervis Bay, a testament to the almost finishing-up of the nuclear industry in Australia, and it is my belief that in fact ANSTO and the scientists and bureaucrats that constitute the nuclear industry, the tiny nuclear industry in Australia, are effectively the wriggling tail of the dinosaur that died long ago. There is an inertia there. There are a lot of people who have an interest in continuing to have a nuclear type industry in Australia; there are people who would like to go back to having nuclear power; there are people who would like to have nuclear weapons.

The Hon. IAN COHEN: You detailed the percentage of nuclear isotopes, et cetera, for medical purposes coming out of essentially one reactor in Canada. We certainly take on board the example of New Zealand, but could you perhaps briefly detail to the Committee some of the alternative ways that could be set up in Australia in terms of isotope production that would not involve a nuclear reactor and what would we be missing out on, appreciating that there is an advantage in "home grown", if you like.

Dr WILLIAMS: Yes, thanks for that, I should have talked a little bit perhaps about the alternatives.

Firstly, the nuclear medical field, the discipline, is in constant evolution and things are changing. Some of the jobs that I would have done with nuclear medicine 10 or 15 years ago I no longer would resort to nuclear medicine for because it is more radioactive than, say, magnetic resonance imaging. For example, if your child falls over and sprains its wrist and there is a question that the scaphoid bone in the wrist is fractured, it often does not show up initially on plain x-ray. In the good old days we would give that kid a bone scan, fully irradiate his body with ionising radiation, a relatively dangerous thing to do, quite a high dose of ionising radiation. Now we just use MRI and there is no ionising radiation involved. It is much safer.

That is not to say, I reiterate, that there is not a role. I have patients who are having radiotherapy for breast cancer secondaries, or for lung cancer, and there is a role usually in secondary treatment, secondary diagnosis and maintenance therapies in cancer - it is very unusual actually that diagnoses or principal early treatment is using nuclear medicine - so there is a role for nuclear medicine obviously.

The other point is the isotopes that we do use in nuclear medicine. At the moment the workhorse is an isotope called technetium 99, which is generated from molybdenum. At the moment approximately 80 percent of molybdenum in Australia is produced by the reactor in Sydney; about 20 percent is imported. That varies a bit. Some institutions in Australia prefer to import their molybdenum technetium from overseas because they think it is a better deal - it is an open market potentially - but the question remains. I would not be advocating long-term importation. There is very good technically feasible work being done on producing technetium and other isotopes in non-reactor technology. Already a lot of the isotopes are produced in cyclotrons and other types of particle accelerators which are driven by electricity, not by nuclear fission, and the future of producing relevant isotopes like technetium is in particle acceleration. That will require millions of dollars, not hundreds of millions of dollars, and it will require some years of research and further development. I think one of the papers that was presented by Sutherland shire, by Professor Robert Budnitz, a very respected nuclear engineer talking about these alternatives, describes quite clearly the process by which we could achieve that and I certainly believe that short-term importation, long-term non-reactor generation, no problem.

The Hon. IAN COHEN: You mentioned support for the stabilised iodine tablets as a good pre-emptive move. There has been discussion about panicking the community by supplying these tablets to communities on the route. As a community doctor, do you have a response to that?

Dr WILLIAMS: I have worked in the community for 20 years. The guts of what I do is general practice. I talk to people every day. It is a value situation. It is about health promotion. It implies that people are stupid. People are not stupid. That is why they are objecting to having a nuclear reactor in their suburbs. They will cope. No worries.

The Hon. CHARLIE LYNN: One submission we got this morning advises the Committee that only 10 percent of high class neutrons are used for medical isotope production. Would you be able to give us some advice as to what the other 90 percent must be used for?

Dr WILLIAMS: I presume it is the industrial application. There are quite a few measuring gauges and civil engineering applications and also the research. There is quite a bit of research going on in that, including work to find better ways to enrich uranium, which is a very dubious thing for us to be doing in these days.

The Hon. CHARLIE LYNN: And that is going on at Lucas Heights?

Dr WILLIAMS: Apparently at Lucas Heights, yes. That is one of the reasons the allies are contemplating bombing Iraq, because they are enriching uranium. It is not so much that we are going to make the nuclear weapons, but we have got the technologies that other people could use, lasers - it's very dangerous.

CHAIR: Your submission expresses concerns that the risk model that currently operates within the nuclear program, which includes radioactive waste management, was drawn up before the discovery of DNA. Could you spell out in more detail the basis for those concerns, including any implications for transport and storage of waste? What, if any, action should be taken by legislators to address this problem?

Dr WILLIAMS: Yes. It goes back to this question to some degree about low level ionising radiation. Historically low levels of ionising radiation have been regarded as being harmless. As we have been able to study the literature, the data, the experimental findings more and more over the past few decades, it has become obvious that low levels of ionising radiation are dangerous.

A very good example of that would be the issue of paediatric childhood cancers from radioactive iodine. Before the Chernobyl accident, the catastrophe which dispersed large amounts of radioactive iodine into the atmosphere, we knew that radioactive iodine was a problem in children, but we had no idea just how dangerous it was. Over 2000 children have contracted cancer of the thyroid as a consequence. It will probably amount to about 10,000 children by the time the wash-up occurs. Some of those kids were exposed to levels of radioactive iodine under 50 milliSieverts, which is a pretty low dose, much much lower than we ever would have imagined if you had asked us 10 or 15 years ago.

The risk models, not so much the parameters, but the risk models were devised in the 40s and 50s. Basically the principles were established following the studies of the Hiroshima bomb victims. The problem with that is that it was a sudden event, different types of isotopes exposure and less long-term isotopes, and the risk models were established on the grounds that the risk was an external radiation risk.

Since then we have discovered DNA. We can actually look at DNA in an electron microscope. We can see the damage, the little double strand breaks in there, the misrepairs, the failure to promulgate new DNA that is of normal type. What we can see now is that ionising radiation, even one alpha particle, can damage DNA. So things like say plutonium or americium which come out of nuclear reactors - they do not come from anywhere else - things like that, even just one particle, if say you inhale an americium particle, it lodges in your lung. It is a tiny dose; it would barely measure on the geigercounter; you might not be aware of it. It might sit there for 30 years in lung tissue, it might be scavenged into your thoracic lymph nodes. It will sit there, just pumping out alpha

particles at a submicron level for 10, 20, 30 years. At some point, if it is harassed with the wrong bit of DNA and your DNA fails to repair itself, that is when you get that mutation and then the promulgation of that mutated cell and that is cancerous. We understand that now.

40 years ago when the International Commission on Radiation Protection set the goal posts, there was no concept let alone of that level of understanding but even of DNA, deoxy ribose nucleic acid, and the interesting thing of course is that in the last few years permissible limits of exposure to radiation have certainly gone down. When I graduated in 1982 the level of radiation at which children were supposed to be administered stable iodine in the event of exposure to radioactive iodine was about one thousand milliSieverts. In 1986 I think, or 1990 - I will have to check that - it was reduced to 100 milliSieverts. The World Health Organisation now says the exposure levels should be 10 milliSieverts. That is within 20 years the level has gone down and my understanding is that the New South Wales Government is proposing to adopt that level.

That makes a big difference to emergency response planning and that is one of the reasons why I am saying it would be medically negligent not to pre-distribute stable iodine to households. It is not going to solve the problem. It will only address a part of the problem. It will only help the radioactive iodine. It will not help the strontium, caesium, plutonium and americium and all the other stuff that is going to be in your sunrooms, and not just within five kilometres. You heard Councillor Anthony say it, all that has got to happen to get a plume is a loss of cooling.

I would refer you to the high class safety analysis DR 22, scenario number 20, you get a loss of cooling, you get a fracturing of the containment vessel, you disperse - I think they use the scenario where there is about four percent of the radioactive iodine, not even the whole lot of it, just a small amount of it, and that will cause a level at the boundary of about 1900 milliSieverts. We are talking about a serious event. If it is 1900 at 1.6, I have got nephews who live in Manly, if the wind is blowing in that direction, they are potentially exposed.

(The witness withdrew)

(Luncheon adjournment)

DAVID JOSEPH NOONAN, Campaign Officer, Australian Conservation Foundation, 120 Wakefield Street, Adelaide, affirmed and examined:

CHAIR: We have received a submission from your organisation. Is it your wish that the submission be included as part of your sworn evidence?

Mr NOONAN: Yes.

CHAIR: Do you wish to briefly add to or elaborate upon it?

Mr NOONAN: Yes. The ACF considers that the primary role of your Committee is to address the consequences for New South Wales of the Federal Government's nuclear expansion plan going ahead in your State and to come up with means to address those adverse impacts. We believe you need to be fully aware of the increasing clash between these Federal Government plans and the will of virtually all of the other States and Territories in Australia. For instance, I would like to focus, in providing additional information to you, on high level waste issues, particularly high level transport issues and storage issues.

The store for high level waste has been rejected in all other State and Territory jurisdictions in Australia, as is documented in the ACF submission. Essentially this means that it is ever more likely that reactor waste - existing waste and the new reactor waste, if that should go ahead - will have to be retained in New South Wales because no other community or State or jurisdiction in Australia will allow those wastes to cross their borders, and principally it is the new reactor plan which is preventing any outcome for adequate waste management in Australia when no community is willing to have imposed upon them not just some forbearance to reach a management outcome for existing waste but to have imposed upon them the deliberate transport and dumping of new reactor waste through an unnecessary and hazardous reactor in Sydney. Essentially then the matter is fully for the New South Wales community and Parliament to have to address, we believe, and not a matter that can be passed in jurisdictional terms from New South Wales to the Commonwealth or an expectation that nuclear waste transport and dumping will go ahead anywhere else in Australia.

An example of the prohibitive liability in the Federal Government imposing the high level waste on the rest of Australia rather than on New South Wales is that they have now ruled out South Australia from consideration for siting of the store. They had only included South Australia between November 1997 and early 2000 and now they have ruled out South Australia and the reason for that is the high level of community will and parliamentary will in South Australia to oppose that nuclear waste transport and dumping. An example of that is the full page notice taken out by Premier Rann in The Advertiser this week calling on the community to oppose the Federal Government's nuclear waste dump plans.

Now essentially we would understand that the regulator, ARPANSA, is fully aware of the power of community and political opposition to nuclear waste transport and storage, and I refer the Committee to a quote on page 12 of the ACF submission where the CEO of ARPANSA, John Loy, in his reasons for decision in granting a construction licence for the new reactor, cites the opposition of the South Australian Premier to the repository going ahead and cites the potential for there being no national outcome to the management of those classes of waste. He then goes on to say that essentially he is satisfied that the existing reactor waste and the new reactor waste in those classes can be properly managed at the Lucas Heights reactor. Essentially he has already looked at the management planning issues and he is satisfied that those wastes do not need to leave the Sydney reactor site, even if the new reactor should go ahead, so you should be fully aware, just as you have heard the medical, local government and other reasons not to impose that transport of the waste, essentially through this statement the Federal regulator is saying that there is no need to move those wastes out of Lucas Heights.

The high level waste issues, and I would welcome questions on the types of classification issues to do with the waste intended to be transported to South Australia, essentially are two-fold: First, that the best option from the Commonwealth Government is to use Sydney as a high level nuclear waste dump. That is exactly what the new reactor proposal does. A new reactor is a new nuclear waste storage facility in Sydney. It will accumulate high level spent fuel for between eight and ten years from the start of operation of that reactor before there could be, in the Federal Government's plans, a first shipment to any other location, they intending perhaps five yearly shipments overseas for reprocessing. So for the first decade of operation of the new reactor in Sydney, that site will use Sydney as a high level nuclear waste dump and it will be used continuously thereafter as a high level nuclear waste dump because the Commonwealth transport arrangement, any other arrangement the Commonwealth has offered, does not remove at any one time all of the high level waste that would be accrued and accumulated in Sydney through the new reactor operations.

We note that your Premier has given a clear policy commitment in a media release of 27 February expressing total opposition to the creation of a new nuclear waste storage facility anywhere in New South Wales. Now the public debate at that time was perhaps about an outback nuclear waste dump west of the Darling. We believe it is much more imperative that this Committee focus on the fact that the new Sydney reactor is a new nuclear waste storage facility and the imprimatur that the Premier's commitment gives the New South Wales Government to seek to prevent that unnecessary reactor risk and waste production in Sydney itself.

The second primary issue the Commonwealth retained, the primary Commonwealth Government plan in terms of the high level waste, is to impose at some as yet unnamed location in Australia a store for those wastes. The Commonwealth does retain at least one site, or more sites, within the State of New South Wales for that plan and they have been unwilling to communicate

with any level of Government, your State Government or at any other level, as to what sites they are considering.

I think it should be a serious concern for your Committee, for instance that on page 4 of the Department of Science submission they refer to the arrangements for transport of radioactive waste to the national store being examined as part of the assessment and licensing process for the facility after the selection of the site. We believe that is absolutely the reverse of due process, that there needs to be a comprehensive assessment of all of the issues in place with the management of radioactive waste before, first, one should produce the waste or, second, before one should take any steps towards how to manage it. For the Federal Government to be refusing to consult with your Committee, as I understand from reading the correspondence from the Federal Minister for Science to the Chair, essentially they have offered you no further information other than to acknowledge that they have an ongoing process that they may make public at some future time, but they retain a right to select a site and only then to look at the transport and other related issues, we believe is a serious breach of their public responsibilities.

A store at any location in Australia involves the use of an as yet unnamed Australian port to receive waste that Australia has previously exported. Australia has periodically exported spent fuel both to the UK and to France and proposes under the new reactor contract to potentially do so in the future to Argentina. Under those contracts, reprocessed nuclear waste is to be returned to Australia and that would have to be brought in through an as yet unnamed Australian port to be then transported along a high level nuclear waste transport corridor to any potential store site. In the Federal Government retaining an option to impose a store in New South Wales they are retaining an option to use a New South Wales port to transport high level nuclear waste through your communities.

When one looks at the Federal Government's plan and how it may unfold one can readily try to look at what sort of postcodes essentially they are targeting in New South Wales for this high level nuclear waste transport and storage. Page 14 of the Federal Department of Science submission is important on this view where they discuss the selection criteria for the store being fundamentally different effectively from the selection criteria for the repository. In terms of the repository, they looked at remoteness, they looked at groundwater issues, they looked at geology. In terms of looking at selection criteria for a store site, they first look at only Commonwealth owned and controlled land and they look primarily to transport and security and infrastructure and safety issues. They are not looking primarily for public interest or public right to decide; they are not looking for environmental or social factors.

In looking at the Commonwealth potential to site a store and a port in New South Wales, there are few sites that can allow them to proceed. There are few ports in New South Wales that the Commonwealth can have control and access through. There is only one port in our minds that the Commonwealth has total control over and that is Jervis Bay. We believe that this Committee has a responsibility to look at what the Commonwealth plans for storing and

transporting high level waste could look like in this State, given that they refuse to provide you with the relevant information for what sites and what transport corridors they are now considering. We believe it is a serious possibility that the Federal Government will impose not just the use of Jervis Bay as a port site but the use of Jervis Bay as a store site and the reason that they would do so is first to maximise Commonwealth owned control of all the sites involved, and they already have full military control as a naval port of that facility, but also to minimise the transport corridors for those high level wastes across any part of New South Wales. That high level transport may well be, in terms of community opposition and security issues, a prohibitive factor in terms of the Commonwealth doing other than using a port facility for the store itself and we commend this Committee to fully investigate the potential for the Commonwealth Government siting of not just a store but the use of a New South Wales port and what then potential and consequent high level nuclear waste transport corridors follow from that. Thank you.

The Hon. CHARLIE LYNN: Mr Noonan, your submission states that the proposed transportation to the repository is unnecessary. If that is necessary, where do you think it should be stored, on site at Lucas Heights?

Mr NOONAN: While there is a reactor operating at Lucas Heights we consider that the reactor's waste should be maintained on site. We believe that minimising transport issues maximises the safety of the management of that waste. We believe that the Commonwealth has invested in both expertise and facilities at Lucas Heights. That is where the Commonwealth's ability to manage nuclear waste lies, and while they impose reactor operations there, we believe that waste should be retained on site.

The Hon. CHARLIE LYNN: We were talking this morning to the emergency services, the police and so forth. Do you not think that the waste can be transferred safely and securely to get it out of the populated area of Sydney to the remote area of Woomera?

Mr NOONAN: We believe that that waste transport is unnecessary and therefore the risks involved in the transport are unnecessary and should not be undertaken. I think the earlier discussion the Committee has had only focussed perhaps on low level waste and you have not focussed on what the actual risk category is in terms of the waste proposed to be transported across New South Wales to the repository in South Australia.

The risk factor is in terms of the category called short lived intermediate level waste. It is waste that requires shielding; it is waste that has a life up to 30 years in terms of the isotopes. That waste then requires to be isolated and managed properly for somewhere between two and three hundred years. These are not low level radiation consequent issues. These are what the Commonwealth Government calls intermediate level risks and hazards.

CHAIR: Mr Noonan, I am advised by the secretariat that the media would like to take photographs and under the Legislative Assembly rules, the witness needs to indicate that -

Mr NOONAN: I welcome that, I welcome the presence of the media.

CHAIR: Okay.

The Hon. CHARLIE LYNN: I think the reason for that is because we know that there is a site that has been identified for low level waste, but the Commonwealth is yet to identify a site for the high level waste, and therefore it is theoretical, I suppose, but low level waste, where we have got a couple of thousand drums there to move, you don't think that could be managed?

Mr NOONAN: There is nothing theoretical about the Commonwealth's proposal to impose a new reactor and high level waste production in Sydney or to impose a store.

The Hon. CHARLIE LYNN: No, but they have not identified the location for the store, as you said before. We know that there is waste in Lucas Heights and we know we have got a location for it to be transferred to and we know they can do it by road, rail, sea or air, and if it goes by road there is a corridor. That is concrete. We don't know what the other site is because that hasn't been selected yet.

Mr NOONAN: I put this in comparative terms. In that 132 truckloads of the waste, short-lived intermediate level and low level waste they intend to take from the reactor to South Australia, that waste is somewhat less than one percent of the radioactive material at the whole of the Lucas Heights site. The high level wastes are vastly more radioactive and vastly more hazardous, but that does not mean that the waste that they intend to transport, the short-lived intermediate level waste, does not represent a serious and unnecessary risk in that transport to the health and safety of communities along the transport corridor and also to the rights of those communities to decide their own future.

There is a fundamental issue before Australia essentially, the issue of environmental democracy of communities. An example is South Australia. The whole community in South Australia, the will of the Parliament, the will of the people, in fact the Premier, is to prevent the unnecessary imposition of nuclear waste transport and dumping against their communities, and it is a matter that State Parliament is fully availed of, that they should represent the wills of their communities and not accept the imposition of nuclear waste expansion, the production in Sydney or in transport and dumping through the Federal Government.

The Hon. CHARLIE LYNN: In order to deal with the potential high level waste issues, your submission recommends that the New South Wales Government take up effective intervention against the nuclear reactor because it is effectively a nuclear waste storage facility. Do you have any specific

interventions in mind or could you give us an idea of what sort of interventions you think the New South Wales Government should take?

Mr NOONAN: I think just as the SA Premier has proven, if you fully engage the will of your Parliament, if you fully legislate to the capacity of your jurisdiction, if you make it clear that essentially the imposition of nuclear waste production in Sydney should be seen as a referendum on the rights of your community, your State versus the Federal Government. The SA Government and the WA Government have said that the ideas of the Commonwealth to impose a nuclear waste dump against them will mean that the next Federal election is a referendum on their rights versus nuclear dumping.

The New South Wales Government is not yet fully engaged. It is very positive that this Committee has been formed and, largely it has come about because of community concerns along the transport corridor, we understand, from the Blue Mountains through to Broken Hill. We believe that if the Federal Government were to be honest with your State Parliament and your community, they would tell you the sites that they potentially include for a store or a port in New South Wales. If they were to tell your communities the routes for the high level nuclear waste transport, the opposition in New South Wales would be overwhelming. We believe the only reason that that has not yet happened is the imposed secrecy by the Commonwealth Government on their nuclear expansion plans in Australia, just as they prevent the community having access to the radiological consequences analysis to the reactor plan, they prevent your communities, they even prevent this parliamentary Committee from being privy to the sites of the transport corridor they intend to use for the high level waste. It is the onus, we believe, on the New South Wales Government and Parliament to overcome that secrecy, to represent the interests of your constituents.

CHAIR: The matter that you raised about making representations to find out the exact locations, do you believe that one action, for instance, this Committee could take is to seek that information itself in the first instance and actually write to the Prime Minister or the responsible Commonwealth Minister to seek those State locations?

Mr NOONAN: Yes, that would be very positive for your Committee to do so, but also for your State Premier to address this. He did so in February and he has not received any informative response.

CHAIR: I think probably the first thing that could happen is that this Committee, in the first instance, could seek that information.

Mr NOONAN: The second thing that this Committee could consider in an information gathering role would be to have brought before you the existing Commonwealth owned sites in New South Wales that the Commonwealth Government may entertain the use of, and you could by perhaps a quick process of elimination get a shortlist of the potential sites the Commonwealth may be wishing to use, in terms of the criteria and other matters that you would have been privy to.

The Hon. CHARLIE LYNN: You have heard in the submissions that there are a couple of thousand movements of radioisotopes around Australia on a daily basis and that supposedly represents a risk. However, it seems to be a risk that is well managed because we do not have any - I am not aware of any incidents or accidents or whatever. Could I have your views on that?

Mr NOONAN: We believe that the movement of isotopes around Australia is almost an unrelated issue to the imposed movement of truckloads of reactor waste around Australia. We believe that it is misrepresentative of ANSTO to come before you and to have implied that their current routine shipments of medical isotopes are a commensurate issue with their intended imposition of the transport of hundreds of truckloads of nuclear waste, short-lived intermediate level waste being the hazard category, through unwilling communities.

The Hon. CHARLIE LYNN: I understand the first transportation was to move a couple of thousand tonnes but after that I understand the production is between 30 and 50 cubic metres a year, which would come down to two or three truckloads. So we are not talking about a large volume once they have established the site at Woomera. Then we are only talking about an annual movement of about three truckloads of low level waste. The other thing I would like to get you to comment on is the statement that the low level radioactive waste moving to Woomera is of less danger than the isotopes that are being moved around.

Mr NOONAN: The communities along the transport corridor were first told by the Federal Government that this is a matter of transporting low level waste and that it was to facilitate medical uses. They then found out that it is actually a matter of transporting intermediate level waste - the Commonwealth calls it short-lived intermediate, that is the hazard category involved - and that it is not medical use waste, it is reactor waste. There are some 132 truckloads of waste being prepared at present at Lucas Heights, somewhere between 5,000 and 6,000 drums. The predominance of the radioactivity in that inventory of waste is in the category of short-lived intermediate level; the predominance of the radioactivity is not low level. Within that short-lived intermediate level, the predominance of the radioactivity is within three isotopes - strontium, caesium and tritium - which Dr Williams referred to, all within themselves serious radioactive hazards should they ever be lost control of. We believe that one of the best ways to retain control of them is not to unnecessarily move them.

Again the communities along that transport corridor were told by the Commonwealth Government: This is somehow a one-off shipment of waste. They then found out that the Commonwealth plans include the decommissioning and dismantling of the existing Lucas Heights reactor and the transport of between 150 and 250 further truckloads of reactor waste along that same unwilling route of communities and local governments. So I think it is again misrepresentative of ANSTO to claim that somehow this is a one-off

episode and that, in addition to that, future and major shipments of waste are intended.

It is also the case that the new reactor in Sydney is unnecessary. It is hazardous and unnecessary and to be producing those wastes and imposing the transport of them is against our democratic interest but also an unnecessary hazard and risk that they are placing a lot of communities at against their will.

The Hon. CHARLIE LYNN: Were you satisfied this morning when you heard the submission from the State Emergency Management Committee and the fire brigade that they could actually have satisfactory plans and procedures in place to handle the movement by road?

Mr NOONAN: Essentially those organisations try to minimise the risk to your communities and, when an order is given by a jurisdiction outside of their control that there will be movements of radioactive waste, your emergency services respond as best they can to minimise those risks to your communities, but that does not mean that those transports should go ahead when those transports are unnecessary.

The Hon. IAN COHEN: The ACF recommends that New South Wales enacts legislation similar to the South Australian Nuclear Waste Storage Facility Prohibition Act to prohibit the potential for a national store and associated waste transport. Does ACF have a view or has your organisation had any advice on whether such legislation could be ultimately overridden by the Commonwealth?

Mr NOONAN: ACF believes that there are a number of significant advantages to State legislation against nuclear waste transport and dumping. At present New South Wales is entirely undefended essentially in a legislative sense from the Commonwealth Government proceeding with their plans for nuclear waste transport and dumping. You have a Uranium Mining and Nuclear Prohibitions Act from the 1980s which carries a specific exemption allowing for any Commonwealth nuclear facility. That Act at the time made uranium mining illegal and it made a nuclear waste dump, if carried out by the State Government here, illegal but it allowed and facilitated any nuclear facility undertaken by the Commonwealth. So essentially your legislation does not even attempt to prevent the Commonwealth proceeding, it actually invites the Commonwealth to proceed, it gives them an immunity in a sense because they are provided for through subsection 8(3) of that Act.

So at present you are in the worst position and comparatively South Australia and now Western Australia have put in the strongest State legislation to prohibit the import, transport, storage and disposal of, in South Australia's case, all of the waste intended to go to any national nuclear waste dump in South Australia.

An example of how the legislation can have significant legal capacity is that the Commonwealth has always said that the nuclear waste transport and dumping will be authorised under the ARPANS Act. However, that Act works in

a legal sense by listing in the regulations the State Acts that it overrides and when the ARPANS Act was brought in it listed all of the State environment protection and radiation protection Acts, it said it overrode them in that one exercise, but it does not override more recent State legislation unless they have been listed in the regulations and the South Australian and the pending Western Australian Nuclear Prohibitions Act have not been listed under the ARPANS Act, so they are not overridden as yet by the Federal Government in a legal sense, and for the Federal Government to do so they would have to pass either a new regulation in the Senate or they would have to amend the Act and the majority of the parties in the Senate, the ALP, the Democrats and the Greens, have made clear that they would not allow any new legislative powers for the Commonwealth Government to impose nuclear waste dumping in Australia. So at present there is a clear legal opportunity which the South Australian Premier has fully availed of to pass State legislation which is not overridden by the ARPANS Act.

The Hon. IAN COHEN: So similarly in New South Wales, if the Premier does not act, would that then leave New South Wales more vulnerable in this situation?

Mr NOONAN: At present you are completely vulnerable in a legislative sense because the legislature which you hold provides specific exemptions for the Commonwealth. The ACF has called on the New South Wales Government to legislate against nuclear transport and dumping in New South Wales and we believe that there is a number of significant advantages, not just that you express the will of your community and your Parliament, that is immensely important in a democratic sense, to make the clearest expression of the will of your community and Parliament against imposed nuclear waste transport and dumping, but also that there is the potential for significant legal advantage versus the Commonwealth in doing so.

A further example of that is that the South Australian Government has already undertaken a Federal Court appeal against compulsory land acquisition for the nuclear waste dump site and they have indicated that they will undertake a Federal Court appeal against any licences and approval of the operation of a nuclear dump in South Australia, including the transport issues, so if the South Australian Premier is willing to go to the Federal Court over it, why would the New South Wales not be legislating against it?

The Hon. IAN COHEN: So you would be advising that the New South Wales Government should at least obtain legal advice on this matter?

Mr NOONAN: We believe that, irrespective of legal advice, you should immediately repeal that exemption for the Commonwealth Government in that Act from 1989, the Uranium Mining and Nuclear Prohibitions Act, and you should put in place the strongest legislation in terms of your State jurisdictional powers to make the clearest expression of the will of your Parliament and your community against Commonwealth imposition of this nuclear waste transport and dumping, and then leave the matters for that political will to exercise its

influence. Just as the Federal Government had to exclude South Australia from the store siting, they may well find that they cannot defeat the potentially greater influence of the State of New South Wales.

The Hon. IAN COHEN: So in this case can you see a possibility where the Federal Government would move against South Australia legally in this matter and institute Commonwealth powers to actually obtain access over the State laws?

Mr NOONAN: Well, the South Australian Premier has said that he will proceed to the High Court to prevent the imposition of a nuclear waste dump in his State and the Federal Government have said that they will contest him fully with their legal and constitutional capacity.

Now an issue that I heard raised in testimony at the last hearing from ANSTO, there are significant issues of, given that level of jurisdictional and legal contest, under what legislation will the Commonwealth actually proceed? They have said all along they will use the ARPANS Act but they may retain an option of using the ANSTO Act to impose the transport of the reactor waste across Australia to try and override State legislation by that means and it is yet to be answered as to whether the Federal Government will try to use the ANSTO Act to override the more recent State legislation.

Ms JUDGE: Earlier we had an interesting presentation from the Medical Association for Prevention of War and Dr Williams talked about the political emotional blackmail of using medical isotopes and so forth. What is the position of the organisation that you represent? Do you have a similar position, looking also at the fact that that perhaps would account for 10 percent of the waste and 90 percent is from the facility?

Mr NOONAN: We believe that it is at best misleading but potentially a deliberate untruth for the Commonwealth Government to claim that Australia requires any nuclear reactor to provide the best of medical isotope provision services. The new reactor is essentially a new high level nuclear waste dump in Sydney and they are using the issues of provision of medical services to try to overcome community concern against the unnecessary and hazardous reactor risk and nuclear waste production at the reactor. Australia could well go down the path of developing non-nuclear, non-reactor based alternatives and we could then be exporting those advanced technologies to the rest of the globe rather than institutionalising one of the most hazardous, outdated nuclear industries and placing our largest city at risk of a major accident in a reactor.

Ms JUDGE: So basically what you are saying is that they are just using that as a smokescreen or distracter from their real purposes?

Mr NOONAN: We believe that it is essentially untrue for the Federal Government to be telling your Committee that they require a reactor in Sydney to provide medical services. There is no need to have any nuclear reactor in Australia to provide the same level of nuclear medical services.

Ms JUDGE: The other position that he put was that in other countries - Canada, for example - rather than having many different areas for storage, perhaps it should just be in one or two countries and shared globally, if they are going to go down that path, and the reality is that some countries have made that decision globally. What is your organisation's position on that?

Mr NOONAN: We believe that in terms of public health and safety we need to wind back the nuclear industry, not just in Australia but around the globe. One of those issues is that we should not be exporting uranium, but in terms of nuclear reactors the world could operate, as Dr Williams said, in provision of the main medical isotope, technetium 99, off perhaps only two reactors in the world. We do not need hundreds of reactors in the world, we do not need any in Australia to do so, and the world could be developing, as Australia could be developing. We could have a centre of excellence in non-reactor based technologies at ANSTO with even more employment developing new means to produce, for instance, medical isotopes in cyclotrons and other means and exporting that new technology around the globe and making a positive contribution rather than making the most negative contribution by institutionalising the nuclear industry.

In terms of health standards, again I think your Committee needs to look at the outdated health standards that the Federal Government intends to impose. You have heard the issues of the stable iodine and provision to children where the Federal Government intended to use a health incentive that would expose children to three times more radioactivity than the World Health Organisation recommended before they would recommend any medical intervention to help those children and limit the risk of cancer, but in the broadest context the health standards recommended for the public and nuclear industry workers are long outdated. The recent findings of the European Committee on Radiation Risk recommended a tenfold reduction in the legal radiation exposure to members of the public from 1 milliSievert a year down to 0.1 milliSievert a year, and they recommended a fourfold reduction in the legal exposure for a nuclear industry worker over a 12 month period from 20 milliSieverts a year down to 5 milliSieverts a year. The trend is an increasing recognition that there is no safe level of ionising radiation exposure and that the nuclear industry has to change its practices and be wound back in terms of the adverse health impact that it is having.

CHAIR: May I ask you two questions following on from that? In terms of overseas practices, is there any country or State in the world that you would regard as doing something approaching the right thing, that actually has waste as opposed to any sort of wound back nuclear industry?

Mr NOONAN: There are a number of countries who are trying to extract themselves from the nuclear industry. Germany is a good example. Germany has made decisions to eventually turn off its nuclear power plants. Germany has made decisions to change how it manages its nuclear waste. In the past Germany had reprocessed its spent fuel as Australia proposes to do. Germany

has decided that in future they will not do so. So just as Germany is extracting itself from the most adverse parts of the nuclear industry, unnecessary reactors, unnecessarily processing nuclear waste, the transport of high level waste around the globe, Australia could much more readily extract ourselves from those same sort of problems, and when the Federal Government comes to your Committee and claims that some time in the future they will have a way of managing the high level spent fuel of nuclear waste, it is simply not true. No country has demonstrated long-term safe management of those classes of waste.

The Federal Government's best offer to Sydney is to use Sydney as a high level nuclear waste dump through that new reactor. They will accumulate high level nuclear waste there for up to a decade and then expect you to believe that some time thereafter every five years they can ship that waste out to somewhere else to as yet unknown sites, and they claim that the reprocessing industry around the world will accept that spent fuel for the full life of the new reactor for 40 to 50 years.

Now, Germany does not believe that. Germany, in 2005, is extracting itself from the processing of spent nuclear fuel. Germany is going to look to on-site aboveground storage and to stop the unnecessary production of that fuel just at the same time as the Australian Government is telling you that they can rely on overseas reprocessing and long distance transport of high level fuels for decades to come. It is simply untenable the offers that they are making to Sydney.

Ms JUDGE: Maybe this Committee should look at getting information from Germany as to what sort of model they are looking at, because I know in terms of sustainability in the environment they have done a lot of innovative work with greening of buildings. They are very progressive in this area.

CHAIR: Mr Noonan, do you think that is an appropriate thing for us to do? Just looking at a model of best practice, not in terms of our future role, but purely in terms of dealing with waste, that very limited area I am talking about at the moment, is Germany an area we should be looking at in terms of best practice?

Mr NOONAN: I understand that Germany, in their undertaking of on-site aboveground storage for spent nuclear fuel, perhaps the locations already exist. They are developing technologies for what they would call assured isolation for that waste in the long-term. They call these measures interim measures but they are talking about essentially a number of decades. Given the long life of the waste, these are the sort of timeframes for which society needs to plan to prevent those hazards from in effect contaminating the health and safety of the environment.

There are developing technologies for assured isolation facilities on site that could readily be applied, we understand, to much improve the standards already undertaken at Lucas Heights, and essentially the opportunities are larger than that even again. If your Committee and your State Government can have

the political will and resolve to prevent that nuclear reactor, you will deal with the vast long-term problems that you will face.

The issues of finding a co-operative outcome through existing levels of waste is, in the ACF's belief, best addressed by the means that all the national environment groups recommended to all the political parties at the last Federal election, and that was that: first, you should prevent the new reactor plan; second, you should scale back and terminate early the operations of the existing Lucas Heights reactor; third, you should hold a full public inquiry under the Federal environment legislation into the management of Australia's existing radioactive waste, and through that means, because that is the only means that you can come to a co-operative answer to a positive outcome for nuclear waste management in Australia.

Essentially I pose two propositions. One is you turn off the tap and you have a fully informed inquiry into how you can best manage the waste that exists by then. The second proposition put to your Committee is the one contained in the Federal Government plans, that they can impose reactor risk and waste production using Sydney as a high level nuclear waste dump for decades to come, and that they will claim to the community of Sydney that they can then impose the transport and the dumping of that waste somewhere else. We believe it is highly likely that the new reactor waste will never leave the boundaries of New South Wales unless your State Parliament and Premier take the political will to prevent that reactor.

CHAIR: Can I move from thinking globally to acting locally? Can I ask for your comments, because we have discussed the transport of rods, the high level waste through Port Botany and there have not, on any advice we have received, been negative consequences. I think we were advised last week four times that that has occurred to date. Do you have any comments on that transfer?

Mr NOONAN: If society undertakes a highly dangerous task enough times, then society must surely expect to have a significant adverse outcome. We shouldn't be gambling essentially with the production and the movement of high level hazardous materials by arguing that the production and the movement of the materials are necessary, particularly the production of it, and just because authorities could act in a way to prevent an adverse outcome in four transports does not mean that they could do so in the fifth or the sixth or the tenth, just as a number of shuttle launches were made before one blew up on launch and one blew up on landing. The consequence then of anything going wrong in dealing with the operation of the reactor and the production of high level waste in Sydney and the removal of that waste through New South Wales, the consequences once something goes wrong are most serious and adverse and long-term and the consequences are not necessarily ones that can ever be undone by the rhetoric or the public relations of ANSTO and ARPANSA.

CHAIR: We were advised last week, for instance, that in the case of a low level waste incident, it would be a matter of the appropriate material, such

as geigercounters, coming in and cleaning it up and there would be no longer any problem. Can you comment on that?

Mr NOONAN: Again, we believe that ANSTO is misleading your Committee to claim that they can recover nuclear material that may be dispersed in an accident scenario, particularly when there is potential for fire, when there is potential for material to be vaporised and to be dispersed through the heat plume that is involved in a fire. There will be no recovery of that material. There is potential recovery of material that may be physically dispersed, as the Fire Brigade has made the distinction between a release and a spill. There may be the potential to recover material in a spill accident scenario but there is not, in our belief, the potential to recover radioactive material from a release.

CHAIR: Councillor Anthony is one of the people who has alluded to the concept of a dirty bomb. There have been claims that in the current terrorist climate security of all radioactive has become an issue with the potential for the materials to be used in a dirty bomb. Do have you any thoughts on that issue?

Mr NOONAN: What the Commonwealth Government refers to as long-lived intermediate level waste and what we refer to as high level waste, the spent fuel and the reprocessed nuclear waste, all of those categories of waste are significant security and potential terrorist related materials and any production and movement of those wastes should be significantly canvassed against in the public interest.

(The witness withdrew)

GREGORY JAMES BLACK, Assistant Secretary, Police Association of New South Wales, Level 4, 154 Elizabeth Street, Sydney, and

ROBERT PETER MORGAN, Organiser, Police Association of New South Wales, Level 4, 154 Elizabeth Street, Sydney, sworn and examined:

CHAIR: We have received a submission from your organisation. Is it your wish that the submission be included as part of your sworn evidence?

Mr MORGAN: Yes, it is.

Mr BLACK: Yes.

CHAIR: Do you wish to briefly add to or elaborate upon your submission?

Mr MORGAN: Yes, I do. Mr Chairman, the Honourable Peter Primrose, and members of the Committee, thank you for the opportunity to address the Select Committee today.

The Police Association of New South Wales is a registered trade union representing police in New South Wales with 15,795 members. I wish to clarify the opening paragraph of the Police Association of New South Wales submission which you have before you dated 30 July 2003. It states: Since 1998 members of the Police Association of New South Wales have been involved in the movement of nuclear waste. I wish to correct that by saying that staff of the Police Association of New South Wales have been involved in the operation surrounding the transportation of nuclear waste since 1998.

To my knowledge, our members have performed duty on five occasions from 1963 to 2001 in the removal of nuclear waste. Before each movement, in the last three movements, staff of the Police Association of New South Wales have had several meetings with all agencies and ANSTO staff concerning safety. This includes how the rods are loaded and assurance that ANSTO staff will be with the containers for the entire journey whilst our members are involved to ensure their safety. Before each operation our members are provided with a safety briefing as well as operational briefing. This briefing includes a safety film explaining loading and testing of the canister carrying the rods. The testing also shows dropping of the canister from a height, a train crash at 160 kilometres per hour and a pinch-bar test. Police provide escort duty of the load from the ANSTO site, Lucas Heights, to whichever port is selected for the loading and security of the wharf and waterways. A number of specialist police are involved during the operation depending on intelligence. I am unable to expand on the intelligence and operational decisions made during each transportation. It would be more appropriate for the Committee to talk to the NSW Police to make comment on that issue.

We are involved in the operational issues to ensure all aspects of occupational health and safety and industrial rights are maintained for our members. This is not dissimilar to other police operations carried out. If actions of protesters cause police to respond, they are generally detained and removed from the site and released under common law. If other more serious breaches of the law are committed, police will proceed on that issue. This is similar to other police operations.

The storage of the nuclear waste: As indicated in the submission, the Sutherland local area command is responsible for the contingency planning in conjunction with other emergency services and ANSTO, and all plans are reviewed on a regular basis.

Issues for future transportation: As per our submission, police will always be involved in the escort of nuclear waste in New South Wales whilst intelligence shows there will be an alleged breach of the peace or interference. This ensures a smooth removal.

During each operation in the removal of nuclear waste or attending demonstrations concerning this type of product our members are exposed to risk of injury whilst maintaining the peace. It is unfortunate that injuries do occur, but police are here to uphold the law. As I indicated earlier, the police association must be involved to ensure that our members' occupational health and safety and industrial rights are maintained. This is not dissimilar to other police operations. With our involvement we are able to provide a positive liaison role with other unions. Mr Black will expand further on that, thank you.

Mr BLACK: Chairman, the Honourable Peter Primrose, and Committee, thank you for the opportunity to address this Select Committee on behalf of my members, who are the men and women of the New South Wales police.

Further to our submission I wish to elaborate on what I think are three key issues affecting the members of the Police Association of New South Wales who may be required to perform duty escorting nuclear waste. The first is the philosophical and political views of police. The second is what we call policing the picket lines. The third is police duty and demarcations.

Firstly, the philosophical and political views of the police: As a union, the police association does not have an established policy position with regard to the transportation and storage of nuclear waste other than to ensure that our members' safety is paramount in any such operation. As police we are bound by duty and our oath of office to act with impartiality and enforce the law as decreed. However, police are entitled to discharge their duty with due regard for operational discretion.

From my research, I found it interesting that in March 2001 in Germany there were 30,000-odd police deployed to escort and ensure the safe transportation of some 60 tons of nuclear waste, whereby conversely in August 2001 in South Carolina, USA, police were deployed to establish road blocks to

stop the transportation of surplus plutonium from US warheads through the State. A simple Google search, the question was: Police and nuclear waste. I was surprised to find about 260,000 hits, which indicates how deeply and widely felt this issue is. There are many more examples that I found on the net, but what I wish to demonstrate is that, regardless of the personal views of police, worldwide we are required to act on behalf of our political masters. This is why, as a union, we do not have a stated philosophical view other than to support our members acting according to law and with due regard to safety. Unfortunately, history shows us that all too often police are in no win situations when simply doing their job after disputes or protests escalate to a level where they are required to take action to either arrest or detain persons in order to prevent a breach of peace.

Policing picket lines: The right to picket and protest is a civil right and frequently police are called to industrial disputes. There are long established guidelines available from the Labor Council of New South Wales and the Australian Council of Trade Unions which I will submit to the Committee today. In regard to policing picket lines, policing demonstrations have many parallels. Primarily police in both circumstances are required to act to prevent breaches of the peace and act in good faith to ensure the safety of both protesters and those involved in lawful activity, notwithstanding the fact that police will also, where appropriate, arrest or exercise their discretion where persons are detected committing a criminal offence. For example, the detention of protesters involved in demonstrations on Sydney harbour during the arrival of visiting American warships. Clearly persons who engage in bow-riding warships are in personal danger and in breach of water traffic regulations and the Summary Offences Act.

The Hon. IAN COHEN: I would dispute that.

Mr BLACK: I've had a grin on my face since I got here, I do apologise.

As indicated in our submission, during previous movements of nuclear waste from Lucas Heights to Botany Bay water police were involved in the detention of protesters for a range of offences.

The third item is police duty and demarcation and I wish to refer to the incidents of 2 April 1998 where police were involved in the escort of hazardous materials from Lucas Heights to Botany Bay. On that occasion, on our reports, the road escort proceeded without incident, but on arrival at Botany Bay other unions had initiated action to stop the ship from being loaded. Police were then directed to take lines from the ship and act as stevedores, which happened. The ship's ramp could not be lowered into place properly because there was a timber stringer on the wharf obstructing it. Police were then directed to operate chain saws to cut the timber stringer from the wharf to facilitate the loading of the ship. It was later revealed that the timber stringer on the wharf was covering a major oil line and it was only good luck rather than good management that ensured that that line was not fractured.

These actions were clear demarcations and a mediation followed with the Maritime Union of Australia, which was facilitated by the Labour Council of New South Wales. There is no doubt that the on-site police commanders acted in the interests of expediency and acted in good faith to facilitate the needs of ANSTO and SETO on that night. However, I wish to reiterate, the police role is to prevent breaches of the peace, arrest offenders where necessary, but not to do the work of other professionals, and we want to be very clear about that.

Thank you for the opportunity to address you today. Do you have any questions?

The Hon. IAN COHEN: Probably more than many members of Parliament I am well aware of your role and I respect it in the majority of circumstances. I am just wondering if either of you might give an opinion of the Greenpeace entrance to the ANSTO reactor a short period of time ago. They really did overwhelm the security facilities with ease. They got onto the roof of some of the buildings in the reactor site, had a protest, described as a peaceful protest. I am not questioning the right or wrong of that. I am certainly not questioning the police role here. However, what I am very interested to hear from your perspective is your opinion on the ease at which the facility was breached, and how you, as a union liaising with the police officers who were involved, see the condition of the ANSTO reactor in terms of any more virulent form of breach, be it even to the point of being a terrorist target. We went as a Committee to have a look on site and I have to say that I was rather appalled at the vulnerability of some of the waste storage sites and the overall facility in terms of the level of security.

Mr MORGAN: As you are probably aware, they do have their own security manager out there. I don't know what his actual role is as far as the management role goes. As with other private sites, because it is a private site, police cannot go in there and direct how they have their security, but certainly police can advise on security. Put it this way, I have not seen the contingency plans under which the police operate out there. That is up to the local area commander and State emergency controller to review that, and to me it would be up to them to review that security with ANSTO. As far as our members being involved, that is just like any other situation, such as coming here to Parliament House to assist with the security at Parliament House if members of the public had come in here breaking the security.

The Hon. IAN COHEN: I might suggest that security at Parliament House is more stringent than I have seen at ANSTO.

Mr BLACK: I might just add that I can't agree with you more. Our members are the people most at risk when something does go wrong. The other thing I would add, unfortunately, in the era we are living in the added security that is now required to critical infrastructure has been escalated by New South Wales police in recent times, but The storage of the nuclear waste: As indicated in the submission, the Sutherland local area command is responsible

for the contingency planning in conjunction with other emergency services and ANSTO, and all plans are reviewed on a regular basis.

The Hon. IAN COHEN: Failing that, and you do have a public obligation as an organisation to keep civil order and maintain safety, is there any further imposition that actually falls upon the police at this time, particularly with the heightened terrorist alert?

Mr BLACK: Our duty never stops I suppose is where I start, and certainly operationally it would be better answered by the New South Wales Police I would say in that regard. Our view as an industrial organisation is to ensure as best we can the safety and industrial entitlements of our members. Certainly, if we are informed by our members, being a member driven organisation, that people are at risk or that operationally they are being stretched beyond their capacity, we are certainly the first to raise it and seek some resolve from Government or from the Police Commissioner.

The Hon. IAN COHEN: Certainly appreciating the operational confines that both you as police and you as representatives fall into, and understanding in the current terrorist climate the security of radioactive waste as a potentially dangerous object, something that could be stolen at some stage, I am wondering whether your association has had any communication or strategy worked out with your members in terms of the police role in a dirty bomb situation, any sort of explosion. Do you have a strategy similar to what we heard from the New South Wales Fire Brigade and how effective do you think it is going to be in the circumstances that might arise?

Mr BLACK: Once again, that is an operational question that would have to be answered by New South Wales Police.

The Hon. IAN COHEN: Just from the point of view of being union reps of your workers, are you satisfied from a Police Association perspective that your membership is well protected under these circumstances by strategy, without going into details of the operations?

Mr MORGAN: As Mr Black said, it is very hard to answer, but if our members raised a concern with us, and that is what we are there for, to represent the members, we certainly then go to the operational commander and review what the situation is and liaise, work it out. If it may be a high risk, let's get it evaluated before we move any further.

CHAIR: The Fire Brigade union, in their submission to us, and I asked the Fire Brigade about it this morning, raised issues that they were concerned about inadequacy in training and inadequacy in equipment. I put that to the Fire Brigade representatives this morning and they responded. I was wondering whether the Police Association has similar concerns in relation to funding for training and equipment in relation to the transportation of nuclear waste at the moment?

Mr BLACK: Good question and I would say that, although we are emergency services, our roles are very different in terms of police and fire brigade, as much as there is confusion from time to time. In relation to risk assessments they have done, we as a union are driving particularly the new legislation under occupational health and safety continually. There is an absolute obligation on police management to ensure that effective risk assessments are done with all operations, and this does not form any different requirement to normal operations in terms of making a risk assessment, other than obviously ensuring that the right safety procedures are in place. As yet, we have had nothing raised by our membership to us that the training and the briefing of police prior to the most recent transportations have been any less than effective.

Ms JUDGE: Have either yourselves or members of your organisation ever actually been onto the site at Lucas Heights to actually physically have a look at it?

Mr MORGAN: Yes, Mr John Cumberland, who is our occupational health and safety coordinator, and myself have attended the site. To clarify that, John is currently on sick report, otherwise he would have been here today as well. We had a look back in 1999, that is when we attended the site. It has been upgraded since then.

Ms JUDGE: In your opinion, do you feel that there is adequate protection there? When we had a look around the site they had broken up some of the storage areas. The storage of drums was one area and there was another area where they were decommissioning, I think they called it, some of the rods.

CHAIR: I do not know whether the association could actually answer issues to do with security.

Mr MORGAN: Not really. I was there in 2001 and I have not been back since, so that is two years ago.

Ms JUDGE: Even the building of the new facility in very close proximity to one of the big storage facilities where potential workers could be - I am just wondering whether you think there is any potential risk there?

Mr MORGAN: I could not comment on that because I have not seen it.

Ms JUDGE: Is your association aware of any incidents of radioactive spills or any incidents, low or intermediate level?

Mr MORGAN: No.

The Hon. CHARLIE LYNN: You mentioned the operational command, so the planning for the escort from Lucas Heights to the site at Woomera would be done by your operational command. As the union representing the men, do you have a representative in that operational command or are they members of

your union? What is your point of demarcation, if you like, or your linkage? I mean you would not get a finished plan that comes down to you and you say, "No, we don't like it".

Mr MORGAN: That is right.

The Hon. CHARLIE LYNN: I imagine you are probably involved in the chain much earlier in regard to occupational health and safety issues.

Mr BLACK: Yes, the men and women of our New South Wales police, we have 99.9 percent membership so, from the Commissioner down, the majority of people are members, albeit sometimes we are dealing with our own members, which is interesting to others, the fact that they are in management roles within NSW Police. We are brought in in a timely sense prior to an operation going ahead when the planning is well and truly in place and we are given the opportunity to comment on the planning and training, to give our imprimatur, if you like, our satisfaction that it is appropriate for our members to further engage in that operation.

The Hon. IAN COHEN: I think there was transport of nuclear waste and you, in your submission, note that there were no safety briefings in 1998, and then following the two operations you received two safety briefings and assistance from ANSTO. Could you detail what brought about those changes?

Mr MORGAN: In 1998 we were not aware of any safety briefings they had. What brought about the changes was the incident that Mr Black raised about the demarcation particularly on the wharf and we became fully aware of the magnitude of what could have happened at that wharf.

The Hon. IAN COHEN: So it was a reaction to incidents that actually occurred?

Mr MORGAN: Yes, so since then we have been involved on the last two occasions fully at the start, as Mr Lynn asked when do we get involved, it is right from the start.

The Hon. IAN COHEN: With the more detailed involvement on later occasions of transport, I am told that in January 2001 some 120 police were involved from a range of areas. Who would pay for this operation? Did ANSTO contribute as well?

Mr MORGAN: That is something that I could not answer, that is something between police and ANSTO. We do not get involved in that at all.

The Hon. IAN COHEN: You commented before on the potential transport from the ANSTO site to South Australia, and again I appreciate that it may be an operational matter, but does the transport by road through the Blue Mountains and the fact that police would be, I would imagine, in attendance,

hold any concerns for you in terms of the condition of the roads for transport of that type of material?

Mr BLACK: I am sorry, Mr Cohen, we have only made comment in relation to transport from Lucas Heights to Botany Bay, we have not made comment in relation to the expanded transport west of Sydney.

The Hon. IAN COHEN: I appreciate that, Mr Black, so would you be able to give a police assessment of how you might need to deal with what is part of the Committee's inquiry, certainly a major part of the Committee's inquiry, and that is the condition of roads over the mountains and how that fits with safety and policing, and you might want to take part or all of that on notice, which is fine.

Mr MORGAN: It was interesting that the speaker before talked about removal to South Australia and that was the first that I had heard that it is actually on the table. It has been spoken about for many years. To answer your question, it would be a very interesting exercise to go on the route that it would be going to actually look at all the possible dangers, how you would go through those areas, but just straight away, semi-trailers currently use all the roads that go out towards Broken Hill, so I do not see a semi-trailer being an issue, but you would have to look at what is on the side of the roads. Police also look at what other risk areas are on the side of the road that you are going to be going past, potentials - whatever - so it would be a very interesting exercise and you would need more than a week to do your risk assessment all the way.

The Hon. CHARLIE LYNN: Given the introduction of terrorist threat, and you have heard mention of the possibility of a dirt bomb, I would imagine that you would be thinking with other Federal agencies or authorities from a security viewpoint as well. You have mechanisms for that, have you not?

Mr MORGAN: Yes. If something like that occurred, we would all be pulled together and I would imagine that New South Wales would just go to the border and hand over, but before any operation is done, and I spoke earlier about intelligence gathering, that is the main thing, you gather the intelligence on what you can, your high risk, your moderate and your low risk, and then you evaluate: Can the move be done? That is the whole operational plan that goes into it. Of course, we are there, but we have minimal input to that, we just sit back and make sure that they are covering everything as a risk assessment of the operational command.

CHAIR: Is there anything that you would like to table?

Mr BLACK: I will table my submission and the annexures in relation to our policing the picket lines and our guidelines from the ACTU as well.

(The witnesses withdrew)

IAN HAMILTON HOLLAND, 74 Morgan Crescent, Curtin, ACT, private citizen, affirmed and examined:

CHAIR: We have received a submission from you. Is it your wish that the submission be included as part of your sworn evidence?

Dr HOLLAND: Yes.

CHAIR: And do you wish to briefly add to or elaborate on the submission?

Dr HOLLAND: I am basically happy to take questions. It would seem from the material I have heard so far, I would make a couple of remarks. They have come out of left field, but they were just thoughts I had as I listened to the evidence of Mr Noonan.

One is I am not sure what sort of material you are getting before you, but I would encourage the Committee not to pay too much attention to claims that are made sometimes about internationally accepted practice and international standards. There are international standards and international treaties and organisations that do some benchmarking work, but, as can be the case with some international instruments, sometimes they are lowest common denominator instruments, and in a field like this, where the science and the engineering as much as anything else is pioneering the uncertainty, I do not think one should put too much faith in them.

I think it is very much an area where you need to forge what the acceptable and best practice will be and not use those international instruments to assume that what someone says or an organisation claims is acceptable practice internationally, that you should take too much comfort from that. I think the issues for this Committee from where I stand are largely, and certainly the evidence seems to reflect this, social, cultural risk issues; they are legal and they are economic much more than some parties would claim they are scientific and technological. So I think this Committee should be focussed on, and does seem to be focussed on, the social, economic and policy issues.

I am happy to field questions in relation to my submission.

The Hon. IAN COHEN: With those comments, Dr Holland, are you saying that the real risk is not as great as some would claim and that the social perceptions are really the issues in your perspective?

Dr HOLLAND: I am not saying that the risks are not real or significant. I am saying that the risks need to be understood socially and culturally, and in an area as technologically and scientifically uncertain and pioneering as all nuclear matters, I think there are significant degrees of scientific uncertainty involved, and so when you are looking at the risks you really need to focus I think on the social cultural aspects and on the perceptions of them, not to

discount or criticise them, almost on the contrary, to actually focus on that approach as a legitimate aspect of what the risks are and how they should be dealt with or understood. I do not want to be taken to be downplaying them.

The Hon. IAN COHEN: Perhaps you could give a perspective on the precautionary principle in the context of this debate?

Dr HOLLAND: Well, I could but I do not think there is one. One of the problems with the precautionary principle is that it says: Be careful before you do certain things. That is fine if the issue before this Committee was “should we build a replacement nuclear reactor at Lucas Heights”, but it is not. But if you are faced with the question what should we do with this existing waste stockpile, then the precautionary principle does not necessarily give you much guidance. Does it say we should keep it here or move it somewhere else? Does it say we should bury it or should we not? I am not sure it is actually a useful principle. It does not mean that it has nothing to say, but I do not think it is one of the kind of approaches that you take in dealing with this issue.

Ms JUDGE: When talking about the precautionary principle, I have heard that term talked about, and you talk about things like EMR emissions and talk about the precautionary principle of prudent avoidance. So I suppose if you took it down that line, you could swallow that line of thought. If you are looking at it from a social context, because I noticed your background is as an ethicist and so you are looking at it more from an anthropological point of view, is that correct? What are the key issues that you see?

Dr HOLLAND: Sorry, what are the key issues?

Ms JUDGE: Yes, you are saying you want us to look not just at the scientific and economic aspects of the whole proposal. You are saying look at it from a more sociological, anthropological point of view, a cultural point of view. I am just trying to get a handle on what you are trying to--

Dr HOLLAND: Sure. One approach I could take in answering that is to say: What are the general kind of policy problems that this sort of issue confronts? I am not sure if this is going to answer your question. I think there are four. The easy one is, and the obvious one is, that you want an effective and safe facility. So you have a policy issue that may be very much driven by the scientific issues, technological and engineering issues, as much as saying how do we create a safe and effective facility for dealing with nuclear waste, or indeed what are the scientific and engineering issues for effective transport, if you like. That is fine.

At least three other things come to my mind as key policy problems. One is what sort of policy linkages do we need to make a policy solution that works? That has been a huge issue with nuclear waste. What are the kinds of connections that we make, what are the kinds of trade-offs that we make to get some sort of policy solution here that a community and that a Government will accept? And this has been a very intractable issue in that respect, finding those

trade-offs, finding the agreements, finding the linkages between issues that will lead governments and communities to come up with a solution that they will accept.

Certainly, particularly with the more long-lived or high level nuclear wastes, I think there are issues with the credible regulation and management of a site, credible in a legal and policy sense, credible regulations in a sense that a community will trust the regulator and trust the organisation of its system. I think those are real problems because of the historical linkages in the nuclear sector around the world between the people who regulate this sector and the people who are actually the operators of the sector. It is difficult to get transparent and regulated regulation and I think that is one of the sources of doubt in this kind of thing.

I am not sure if that answers you at all.

The Hon. CHARLIE LYNN: Dr Holland, were you here during the evidence given by Greenpeace?

Dr HOLLAND: No, I am afraid I was only here after lunch.

The Hon. CHARLIE LYNN: As you appreciate, we need to have an understanding of the comprehensive, technical issues that we are wading through. In their submission they talk about the highly emotive and often repeated claim that it is the catch cry of ANSTO and the Federal Government whenever questions relating to nuclear issues are raised:

Radioactive waste is an unavoidable by-product of nuclear medicine which saves lives.

That is a quote from the Minister, Peter McGauran, and then:

Greenpeace expects that this is reported as fact by ANSTO representatives. We refute this claim.

Would you like to comment on that?

Dr HOLLAND: I do not want to comment on the fact but there have been previous inquiries and previous extensive debates about, in a sense, the technological and scientific question of whether a reactor, for example, is necessary in order to produce isotopes to be used in nuclear medicine. There are better qualified people in the world, including people outside and in Australia, who can address that and I cannot. I can talk to you about the divergent views of the risks that go with that debate but I am not going to comment on the question of isotope production.

The Hon. CHARLIE LYNN: If I can just go on, then it says:

By ANSTO's own admission, radioisotope production accounts for approximately 10 percent of the neutrons produced by the high power reactor. According to ANSTO's 1993 research reactor review submission, just 10 percent of high class neutrons are used for medical isotope production.

And then they went on this morning with this Greenpeace submission to give an indication that perhaps the reactor is used for - well, we want to find out what are the remaining the 90 percent used for. Could you comment on that?

Dr HOLLAND: A couple of comments. As I said, I am not going to comment on whether a reactor is necessary to produce medical isotopes, but if a reactor is necessary to produce medical isotopes and you are committed in a policy sense and as a community to having nuclear medicine available, then I am not sure whether any of the issues grow or diminish very much in principle as to whether you put that reactor to other uses or not.

If you are going to have a reactor, you are going to have waste. If you are going to have waste, you are going to have to deal with these policy problems. You can certainly build reactors of different sizes and you could build a smaller one to only satisfy demand perhaps, although there are very significant and complicated questions about the generation of isotopes and it is not a simple scale problem, but I think you need to deal with these issues of principle because, regardless of what proportion of this material is for nuclear medical purposes, it is still an issue that has to be dealt with at some stage.

The Hon. CHARLIE LYNN: Just to help us, what could the other 90 percent be used for? Could you give us an indication of that?

Dr HOLLAND: Well, there are all sorts of alleged or claimed benefits that come from having a reactor like this and they include other forms of nuclear research, so forget energy production and all of that. In doing nuclear research you can be engaged in research into material science. Nuclear materials are used in research in some areas of engineering. There are all those sorts of science related and research related sources. You can also get benefits from having a reactor arguably related to being, as a country, engaged in the question of how are we going to deal with nuclear waste and it is a little tricky at the end of the day to be engaged in research into nuclear waste disposal if you do not have a source of nuclear waste, so there might be a question of whether you need a reactor, or an active and current reactor, in order to continue to be engaged in this research. I only mention that because Australia historically has been very much engaged in that aspect of the research, but of course the majority of the waste - the historical waste - comes from things that have nothing to do with any of this and as to the future I cannot help you.

CHAIR: On the basis of your reasoning, Australia could also take a leading position in working out ways of cleaning up a major spill of nuclear waste, if that occurred, and could develop new technologies if a major spill occurred, say, in a densely populated urban area. If that occurred, would you

regard it as being an ethically positive thing on the basis that we could develop new technologies treating individuals who may suffer in some way? I am just trying to work out the ethical basis for the statement you made. I mean it would be the equivalent of saying we have a mustard gas spill during World War I as a justification for saying we can develop a whole range of skills in dealing with major respiratory problems.

Dr HOLLAND: No, I think I may have been misunderstood. I am not suggesting you have a reactor in order to generate waste to then work out how you are going to deal with that problem, but you have to put this in some sort of real historical and actual context and that means two things. Firstly, Australia and a large number of other countries are generating large amounts of nuclear waste - tiny amounts in this country but large amounts internationally - and we can all stop the nuclear program tomorrow and all of that will need to be dealt with. So firstly it is a question of needing internationally - it does not have to be in Australia, I am not buying into that - some sort of research program that seeks to deal with an existing problem regardless of one's stance with respect to the future. That is the primary thing I am saying.

The second thing I am saying is that historically Australia has in particular had a research interest in the treatment of nuclear waste, that has been one of the scientific areas that this country has historically been involved in in the nuclear field, and I would expect, without really knowing much about this, that part of the issues with having the reactor and the research program and ANSTO's infrastructure would be as much as anything continuing those research programs, but I am not seriously suggesting that we need a reactor so that we can have some more waste to play with.

The Hon. CHARLIE LYNN: We have had different ideas on definitions and you have placed your definitions of low level waste, intermediate level waste and high level waste here. Are these accepted definitions or are they definitions in dispute by other organisations?

Dr HOLLAND: I drew the definitions in those publications from working definitions of Australian organisations. That stuff probably comes from ANSTO or somewhere. Yes, they are in dispute. However you label these things, I certainly think Mr Noonan was right to say that what you should be thinking about are the risk factors. The label does not matter, what matters are the risk factors and the treatment pathways, which is what sort of risks does this type of material I have in front of me present and what are the appropriate pathways for the management of that material? Thinking about the labels is secondary.

The Hon. IAN COHEN: From the point of view of an ethicist, Dr Holland, could you comment on the ethics of the industry or development of the industry prior to the resolution of the waste issue?

Dr HOLLAND: I think it is easy to look at it and say it was and it remains foolish and, on one level, I am going to go along with that. I think continuing to generate nuclear waste materials when, after decades of work on

this, we do not have any solutions that are serious contenders for that label does not make that much sense. I suppose the only rider I would put into that is that it is not the first or last time, as a human society, that we have done that. We do this all the time with all sorts of things, so it is not unusual that we develop industries and technologies in our society without always having the capacity to deal with the problems that they produce. Fossil fuels are actually not a dissimilar example. We are heavily reliant on this technology that has emerged over the last 100 to 200 years, but I do not think anyone seriously suggests that we can actually deal with greenhouse gas emissions adequately, even if we had the political will to try, so it is not unusual, but I am not sure, particularly in this industry, I think it is particularly not sensible. We are not heavily reliant on this industry in any way across a global society and so to continue to persist with it seems strange.

I think the ethical issues with respect to nuclear waste specifically are more complex and the ethical issues can be divided into three categories: intergenerational issues, intragenerational issues and environmental ones. In terms of intergenerational equity and intergenerational ethics, the trouble with nuclear waste is that intergenerational ethical principles do not give you very clear guidelines on how you should act. Is it better to put this stuff into storage realising that future generations will then have to deal with those stores or is it better to try to find the best possible final disposal, not that there is such a thing, but the best possible final disposal technique and use that in order to avoid future generations having to deal with it? It is a very difficult debate and so I think, with respect to waste, intergenerational equity and intergenerational ethics do not give you a lot of guidance.

I think the key ethical questions when you are dealing with nuclear waste are intragenerational and the main kind of concepts that you are dealing with there are the distribution of benefits and burdens, for example, the notion of a fair distribution of benefits and burdens in any situation, and you get other ethical principles coming into play such as the notion that voluntarism is better than coercion. Now those two things, the notion that somehow you should be seeking to get a fair distribution of benefits and burdens and the notion that it is better for people to freely engage in something than to be forced to, do give you traction, they give you some ethical leverage with which to address nuclear waste issues.

The Hon. IAN COHEN: Perhaps I could suggest another ethical issue in the historical context, and it was mentioned in the 1946 entry in the chronology of radioactive waste and spent nuclear fuel management in Australia. It observed that the Atomic Energy Control of Materials Act of 1946 was motivated by defence concerns in the wake of the creation of nuclear weapons at the end of World War II, so that would have been, one would suppose, an ethical issue of that time and I am wondering whether you could comment? What is your view in terms of the defence issue currently?

Dr HOLLAND: I would say that defence historically has been important in this area for Australia, but that importance diminished since around about

1971 significantly. In the late 1960s and early 1970s Australia went from being a country that wanted to be a nuclear power, possibly with nuclear weapons capability, to being a country that largely rescinded its interest in the nuclear weapons capability. So I would say, in a contemporary context, defence is not a significant motivation. That is a separate question from the slightly more complicated legal question, some of which I heard you discuss with Mr Noonan, as to Commonwealth powers and so forth where it may still be in play.

Ms JUDGE: I find that latter statement a little bit problematic, particularly if you look at the current global situation of issues like North and South Korea, and you have got what happened recently in 2000. Conversely, I think it is starting to rev up and pump up now those that have a vested interest in that area. I think it is perhaps a bit different.

Dr HOLLAND: I am not sure - I assumed the question was referring to the motivation for the development and maintenance of the Australian nuclear sector, and I would stand by my comments with respect to that. In terms of defence issues coming into play in terms of the management of nuclear materials, absolutely you are right, and I have heard comment about dirty bombs already, and that is one example. In fact, I think in one of the two journal articles that I supplied to the Committee I do refer to that as one of the trade-off issues in choosing between storage and geological disposal techniques. Are you going to maintain the capacity to protect these materials if you maintain their aboveground accessibility, and certainly that has come into play as a policy issue in the last couple of years in many ways, but my initial answer was referring to the Australian nuclear sector and research.

The Hon. IAN COHEN: Do you think the Commonwealth would have the power to override State laws with regard to nuclear storage, given that we may be faced with a stand-off similar to what Victoria and South Australia and the Commonwealth have at the present time?

Dr HOLLAND: You have already heard, I think, that there are several Commonwealth statutes involved here, the two main ones being the ANSTO and the ARPANSA Acts. I would say that the short answer is that the Commonwealth one way or another has the capacity. If it wants to do what it needs to do in this area, with a few slightly quirky exceptions which I can come to, the Commonwealth has the constitutional and legal capacity under existing law to do things like build and operate a site on Commonwealth land or land acquired by the Commonwealth, and it could do that wherever.

Partly we have heard that the intention is to do this through the ARPANSA Act, but I think also if the Commonwealth needed to, it would probably switch its game to using the nuclear waste production and conditioning provisions that were inserted into the ARPANSA Act, in I think it was 1992, and I think between those provisions and the existing arrangements under the ARPANSA Act the Commonwealth would probably have those powers.

There may be issues of detail, for example, of whether the Commonwealth has the capacity to manage nuclear wastes that exist in this country that are not currently under the control of the Commonwealth and are also not currently under the control of a corporation, and that is for reasons to do with the capacity for the Commonwealth to operate under heads of power, section 51. If you had nuclear materials that are not in the Commonwealth's control and not in a corporation's control, then unless you could demonstrate some defence related issue I think there is a question of constitutional issues, but the reality of the way the ANSTO Act is framed is that most nuclear materials, including medicine materials, being utilised by State Governments, remain Commonwealth materials in some legal sense.

I think one needs to see the States' legislative activity in places like South Australia as a legitimate and quite forceful political strategy more than it is a legal strategy, and I would agree with David Noonan that that is legitimate and it does raise the stakes and it is something that it is appropriate to look at, but I do not hold out any real hopes that I have heard other people hold out that it would be legally viable. But talk to your lawyers; don't talk to me.

CHAIR: Last week issues were raised about section 51 historically. One of the arguments was that we were talking about the relevant Commonwealth power derived from defence in terms of the original Acts that established Lucas Heights in the first place. I was wondering under what head of power - and this is a legal question but I know you have written on the subject and so I am just putting it on the record here - the Commonwealth would actually be able to legislate to transfer waste?

Dr HOLLAND: I think it is a combination of powers. I am not a lawyer.

CHAIR: I understand, nor am I.

Dr HOLLAND: While these Acts were motivated originally by defence issues and so the Commonwealth may have looked originally to its defence powers, I think now it is a matter of looking at international powers, the corporations' power, the rights of the corporations, the rights of the Commonwealth to control the activities and identify the activities of its own Commonwealth bodies, of which ANSTO is one, and the incidental matters power under section 51, and I would imagine that between those, I do not think the constitutional power question is likely to ultimately - I do not think it would fail, but that is just my view.

(The witness withdrew)

ALISON PATRICIA MEGARRITY, Member of Parliament, Member for Menai, member of the Legislative Assembly, Parliament of New South Wales, Macquarie Street, Sydney, affirmed and examined:

Ms MEGARRITY: I appear before the Committee as the member of Menai and indeed someone who currently has the nuclear reactor based in her electorate.

CHAIR: I am not sure whether we have yet received your submission.

Ms MEGARRITY: No, the arrangement was I would read a prepared statement.

CHAIR: Would you like to proceed?

Ms MEGARRITY: Thank you. I thank the Committee for the opportunity to present a submission on behalf of my community.

First, I do acknowledge that it is not the purpose or function of this Committee to review the decision by the Howard Government in December 1997 to construct a second reactor at Lucas Heights. It is interesting to note, however, the incredible coincidence that the decision was announced on the very same day as the abandonment of the Holsworthy airport proposal. After 16 months of community anxiety and hardship, the EIS for the airport was officially dropped one morning and the EIS for the reactor announced that afternoon. There is only two kilometres between the two sites and one could not have existed with the other in operation.

I mention this history because an obvious pattern has emerged over time and is again reflected in the Committee's subject of inquiry. The Commonwealth rushed through the plans and tender process for the second reactor.

In June 2000 my parliamentary colleague, The Hon Bob Debus, Minister for the Environment, advised the State Parliament that through the entire EIS process, the New South Wales Government was urging the Federal Government to publicly release more detailed information. Indeed, it was specifically requested that the identified flaws be addressed and that, before the EIS process was finalised, a further opportunity be provided for public comment. This did not occur. The Sutherland Shire Council was forced to go to extraordinary lengths to obtain information about the proposal. So too it appears that community concerns about the siting of the nuclear waste dump and the plans for the transportation of nuclear waste are being ignored.

I again refer to Mr Debus' advice back in June 2000 about the crucial issue of the manner and location of the disposal of waste. In December 2003 this (to use Mr Debus' very appropriate adjective) crucial issue had not been resolved by the Commonwealth. Of course, this matter should have been

resolved well prior to any work on the new reactor. It is yet another example of policy making on the run. It is also potentially costing our community hundreds of millions of dollars at a time when every State in Australia is crying out for more health dollars. We have, of course, been told by the Commonwealth to "go away" on that vital issue.

In my most recent community newsletter, I welcomed this inquiry and the call for public submissions. I also invited my constituents to send their views to you for consideration, and I note that excellent submissions have been received from residents in Bangor, Menai, Woronora, Illawong and many other areas. You will have noted the collective concern about the potential figure of 130 or so trucks carrying nuclear waste through their streets. Given the nature of that waste they understandably question the appropriateness and effectiveness of existing emergency services to deal with an accident en route. They have also raised the logical question about the current storage of this waste at ANSTO. Further, if a suitable waste site - should such a thing exist - is not found or if the transportation plans are abandoned, will my community by default host Australia's only nuclear reactor and waste dump?

I reiterate that the decision to proceed with the new reactor should not have been made without an agreed plan for the management of the waste. As you will see, my point is not to devalue the work undertaken by ANSTO. It is a fact that many of my constituents have no real concern about a reactor in their backyard. I certainly respect the people who work there and indeed the site is a significant employer in my community, although it should be noted that the work of a great many people employed there is not directly related to the nuclear component.

I return to my opening remarks about the absence of due process, information and consideration for all of the communities potentially impacted by the transportation and dumping of radioactive waste.

In conclusion, I draw your attention to submission number 6 from Ms Robyn Gordon of Bangor. Her thoughtful submission includes the statement:

All affected local communities would agree, I am sure, that plans to transport and store nuclear waste are very short-sighted if there is no plan to minimise waste at its source.

She continues:

It seems clear that the only real solution to the problem of transport and storage of nuclear waste is to reduce its production at the source - the reactor.

This submission is in spirit with submission number 470 from Councillor Ken McDonnell of Sutherland Shire Council. Councillor McDonnell has highlighted the sound research which has found that there are alternative technologies that would produce the major part of the radioisotopes required in

Australia for nuclear medicine. Apparently the alternative Accelerator Technology only produces a small amount of radioactive waste and is far cheaper than the use of a nuclear reactor. Councillor McDonald has, I believe, made a detailed report available to the Committee. It would be appreciated if consideration could be given to a recognition of this technology in the Committee's final report.

Thank you for the opportunity to present this afternoon.

The Hon. IAN COHEN: I am wondering if you could explain in terms of the policy of the ALP in New South Wales against any enrichment facility and the fact that Silex is on site at ANSTO and undertaking activities which would be regarded as enrichment of uranium?

Ms MEGARRITY: I was not aware that they were undertaking those activities.

The Hon. IAN COHEN: Are you aware of Silex as an organisation?

Ms MEGARRITY: Yes, but I was not aware that they were at that site. I am happy to make enquiries on behalf of my community. That is news to me.

The Hon. IAN COHEN: Well, perhaps you would like to undertake those enquiries because I think, in terms of relevance to this inquiry, if in fact there are enrichment processes going on on site, then we have another aspect of the issue of radioactive transport potentially to deal with.

Ms MEGARRITY: Yes. As you will appreciate, it is very difficult sometimes to know exactly what goes on on the site because of jurisdictional issues, et cetera. I am happy to take that on board and make those enquiries.

The Hon. IAN COHEN: Do you, as a local member, get access to the site?

Ms MEGARRITY: I have been there once on an open day.

The Hon. IAN COHEN: Did you get a show bag?

Ms MEGARRITY: No, so just one visit, from what I recall. As I said, I have no problems with people doing a job that they believe it is important to do, but I really do take exception when the community is not considered sufficiently.

The Hon. IAN COHEN: With the construction of a new reactor, despite a lot of community concern, I think we are at the present time up to the point of the foundation concrete being laid, have you had any interaction with the relevant unions in terms of discussing or trying to stop the building on that site or do you have a position on that in terms of their participation in the development at this site?

Ms MEGARRITY: I think you will recall because I think I even remember seeing you there, now that you mention about going to the site - there was one other occasion when we were outside the gates at a community event for those purposes, and I know that there were some union people present there, but no, I cannot say that there has been any direct relationship. The union movement is quite aware of the situation and certainly has its views, but the decision to proceed with the reactor, as you know, was rushed through and well and truly in train before anyone could really do too much at all. There has been a definite move, or compulsion, by the Government to go ahead with that, whatever anyone thought.

The Hon. IAN COHEN: Which Government are you talking about?

Ms MEGARRITY: The Howard Government

The Hon. IAN COHEN: Did you make any application to the relevant unions about boycotting building on the site?

Ms MEGARRITY: No, as I said, I had not even anticipated that as a course of action. I have raised in the House a number of times my concerns about the lack of process, the same question I am again raising today, and the Federal Government's disregard for any community concerns, whether they be union or otherwise.

The Hon. IAN COHEN: Would that not have been an ideal opportunity?

Ms MEGARRITY: I suppose now that you mention it, but I must admit I had not thought of that before.

Ms JUDGE: It is never too late.

The Hon. IAN COHEN: Well, that is a point, it is never too late. Perhaps that could be something looked at. In terms of the site and in terms of you being the local representative, are you satisfied with the level of security, the proximity of the road and public areas, the proximity of public lands and access to the site? Does that give you any cause for concern as the local member?

Ms MEGARRITY: I certainly know that, for example, on the occasion that I referred to when you and I were outside the gates it was a big drain on police resources from my local community, police must attend any event that occurs in the vicinity of the reactor. As far as boundary security is concerned, there have been some celebrated examples where people have managed to breach that security and gain access. The Commonwealth has made it very clear on all occasions that it is their territory and that it is their responsibility or at least their domain to maintain that security, but I have noted that, in the event of any community protest or any activity happening outside those gates, the State Government is called upon to provide police resources, just as we

would be called upon to provide any emergency services that would be required in the event of an incident around the reactor. So there are State Government implications, which is why, as I said, the State Government, where it has jurisdiction, has undertaken to do some work in relation to a health study and other things that have happened, but I know the main thrust of the issue before your Committee is storage and transport, so I am trying to confine myself to that.

The Hon. IAN COHEN: We had a submission today by a gentleman from emergency services, Mr Howard, saying that they would be reconsidering the subject of the issuing of stabilised iodine tablets. Where do you stand on that in terms of protection for your local community?

Ms MEGARRITY: The community and, as I have already explained, I say the community advisedly because there are many people who view this as an important issue, and as I mentioned there are some who do not - made representations made to me prior to the most recent election that iodine tablets were an important thing for the community to be supplied with in the event of an incident. I made those representations to the Minister for Environment, who was then also the Minister for Emergency Services, is no longer. So, as I said, I am awaiting an announcement because as far as I know there has not been an announcement in relation to that issue. I certainly followed through the request that was made to me.

The Hon. IAN COHEN: In terms of the essential aspect of this inquiry, which is about the transportation of low and intermediate level waste, do you have any comments on the dangerous problem of transporting through essentially your electorate, which is the first stage of departure of this waste, in terms of the road infrastructure that is in existence around the nuclear reactor site?

Ms MEGARRITY: I can tell the Committee that the State Government is spending a lot of money on the road infrastructure in my electorate. But one of the points we do not know the proposed route of these trucks. It all points to the uncertainty that we have over this whole issue. One, we do not know the routes; we do not even know the destination. There are so many implications for the State Government, as I mentioned, with police, emergency services and, as you mentioned, road infrastructure, that it seems that we are not being taken into account as a Government nor as a community in the bigger picture of this proposal. These things should have been and needed to be sorted out well in advance of getting to this stage, but as I pointed out in my submission they were not.

The trucking of waste through residential streets and/or other arterial roads, people are concerned about an accident en route there. Yes, there are concerns about possible terrorist activities. I am not trying to talk up those issues. All I am saying is there is uncertainty and concerns, and the lack of information that is coming through feeds that uncertainty and concern and definitely has implications for State Government infrastructure.

The Hon. IAN COHEN: I will be a little more specific. Your local area has had specific experience with serious situations like bushfire in the recent past, access of emergency services, problems with people attempting to evacuate the area. Are there serious concerns in your view of transporting out of the reactor site as a result of that experience?

Ms MEGARRITY: Emergency evacuation has been one reason why we have been so keen to get the Bangor bypass operational to give another access to people, i.e. other than Menai Road and Old Illawarra Road, to exit their communities in times of crisis. As recently as December last year, we faced that very prospect with fires coming from the Holsworthy range and further below that. It is not a community which can feel safe at any given point in those extreme conditions.

The reactor is still there too. The fire came right up to the boundary of the reactor in the last incident. So yes, these things are all issues, emergency access, evacuation, the fact that the trucks will be going through the streets, and quite seriously or potentially, anything could happen and it is people that wear the impact.

CHAIR: Thank you very much for your presentation here today and I think it is worthwhile also putting on the record the positive role that you took in the establishment of this Committee to examine this matter in the first place. Thank you very much.

(The witness withdrew)

(The Committee adjourned at 4.55 p.m.)