

COMMISSIONER: Welcome back, 1430. We reconvene and Mr Griffiths from ANSTO, we welcome you back again. Thank you for joining us.

MR GRIFFITHS: Thank you.

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COMMISSIONER: Counsel.

MR JACOBI: ANSTO is a Commonwealth research organisation which provides specialist advice and scientific services. It also manufactures products including radioisotopes for cancer detection and treatment. ANSTO and its predecessor, the Australian Atomic Energy Commission, the AAEC, has operated nuclear research reactors at Lucas Heights in Sydney since 1958, including the current open pool Australian lightwater reactor, OPAL, since 2007.

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Mr Hefin Griffiths is the head of nuclear services and chief nuclear officer at ANSTO. He is responsible for all radioactive waste management activities at ANSTO and directs the provision of radiological safety advice and training to commercial entities. Prior to this role, he spent over 20 years working in both the civil and military fields of the nuclear industry in the UK with the focus on nuclear safety and emergency planning, and the Commission calls Mr Hefin Griffiths.

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COMMISSIONER: Mr Griffiths, thanks again for joining us. Today we're looking at the transportation of nuclear materials, and perhaps we could start with the spent fuel shipments. Can we understand what has gone on at ANSTO, why, and whether there have been any particular concerns about the movement of spent fuel.

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MR GRIFFITHS: Thanks, Commissioner. ANSTO has taken part or overseen the safe shipment of nine separate consignments of spent fuel. To date they have all been to do with our previous reactor, HIFAR, and occurred from the period of 1963 up to the most recent export which was in 2009. So that's been a total of about 2300 spent fuel elements that were shipped overseas. ANSTO made the decision to ship the reprocessing because there was no direct disposal available within Australia and the reprocessing was undertaken by the UK initially and subsequently COGEMA, now AREVA in Cap La Hague in France.

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In between there were two shipments, sorry, three shipments to the US, and we're not expecting anything to be returned from those. They're not being reprocessed. The reprocessing of the shipments that went to Dounreay and COGEMA, Australia is obligated to take the reprocessed residues back from those shipments, and the reprocess from Cap La Hague in France are currently being returned to Australia and will arrive before the end of the year.

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5 COMMISSIONER: Can we just unpack a bit of that, and could you walk us through the process of deciding what you had to do, where the approvals were required, and generally how you commissioned the people in terms of the transportation which is really our interest. So the transportation within ANSTO, the transportation to the port obviously to where it needed to go, and back again.

10 MR GRIFFITHS: Yes. If I look at the most recent ones, Commissioner.

COMMISSIONER: Yes, that would be fine.

15 MR GRIFFITHS: Because some of the earlier ones pre-dated the ARPANSA Act, so the regulatory frameworks are slightly different.

COMMISSIONER: Yes, that would be good.

20 MR GRIFFITHS: With the most recent shipments, it tends to start with engaging a specialist nuclear logistics firm. So with spent fuel shipments you are transporting to another country. So some of the specifics that apply to the return and particularly around the choice of the cask, don't apply to spent fuel shipments because you are just shipping to someone else so you are engaging somebody to provide those services and those services only. You don't need to have a dual purpose cask which is essentially what the reprocess residues are coming back, we need to have a means of both transport and storage.

25 So for spent fuel shipments, as I said, it starts with engaging a supplier, generally an overseas supplier, we don't have that capability within Australia. Specifically to procure a suitable cask, both for internal transfers if we require them, and we will need that for the spent fuel shipments from OPAL. We will need a separate cask to unload material out of the storage pool which will then be transferred into a larger transport cask. So a lot of it comes down to pragmatic decisions that we choose people that either we worked with before, or people that have a good reputation and can work with us in order to help us down select what the specific transport casks, for example, that we would need.

30 As I said, many of these specialist nuclear logistics companies would manage the whole of that process or would have that ability to (a) supply a cask, and also to be able to engage a specialist maritime transport component and also manage the heavy haulage aspects of road transport within Australia. But overall the responsibility and obligation will rest with us as the licensee.

35 COMMISSIONER: So you're responsible for developing the transport plan - - -

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MR GRIFFITHS: Yes.

COMMISSIONER: - - - to the port of embarkation.

5 MR GRIFFITHS: Yes. So, for example, with a spent fuel shipment we have
already started planning for our next shipment which will be in 2018 which
started last year. So a lot of the planning is internal. So we understand what
we need to do in terms of the regulatory framework, who we need to get prior
10 approvals from, and at the moment we are speaking to people within the supply
chain that are overseas that can assist us with answering the questions and
developing the plans that we need to develop.

For us, I guess spent fuel management is just an extension of what we do every
day. Every activity that we carry out as part of our nuclear licences, we need to
15 underpin that with robust safety assessment processes to satisfy ourselves
primarily that (a) we're compliant with the Australian regulations, international
regulations as required, but primarily both the risk both from normal operations
and foreseeable accident conditions is as low as reasonably achievable.

20 So for spent fuel management, as I say, that's just an extension of that, and as
I'm sure ARPANSA would have explained this morning, this is covered by the
robust framework for transporting radioactive material and primarily it comes
back to the design of the transport container which is designed to protect the
inventory against the normal rigours of transport and for something like a spent
25 fuel container, a type (indistinct) container to provide that protection against
the most severe accident conditions.

COMMISSIONER: The lack of permanent storage means that the OPAL fuel
will be reprocessed as well.

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MR GRIFFITHS: Yes. We have two options currently for OPAL. We have
the option under the research reactor take back program which is operated by
the US of shipping to the US - sorry, any spent fuel that is irradiated before, I
believe it's May 2017, is available to be taken back under that program. That
35 would be a process that it would be stored in the US and we wouldn't get
anything back. The other option is to engage with a supplier for reprocessing
facilities, and we're considering both those options. Essentially it would be
whichever one offers the best value to the Australian taxpayer.

40 MR JACOBI: I just want to pick up in terms of the overall - in terms of
process management.

MR GRIFFITHS: Yes.

45 MR JACOBI: You identify logistics, supply and contract, and I'm just

interested, and perhaps if we can - at what point in the exercise consideration of the cask comes in and how that is driven by both the needs in terms of the fuel that you are going to need to transport, and then how the regulatory approval process with that is managed.

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MR GRIFFITHS: Yes. A lot of them come down to practical decisions in terms of the availability of a cask. There aren't maybe so many of these available, and particularly for spent fuel this wouldn't be something that we would ordinarily buy. So it would be something that would be as part of the overall contract that will be supplied by the vendor. So we need to look at availability of casks and that is certainly an issue, I think, for the OPAL spent fuel that's coming up because there are a number of shipments that are occurring around the world. So we need to make sure that whoever we engage can provide us assurance of the availability of a suitable cask. A suitable cask would take in the specifics of our fuel. Is the cask going to be of a suitable dimension to accommodate the spent fuel elements that we have? So again some of those down selected criteria tend to drive you down a certain path.

MR JACOBI: Is it also driven by the modality at the other end, that is at the point in which you are going to have the reprocessing activity performed?

MR GRIFFITHS: Essentially, but a lot of them are multi-modal, so they will be designed for road, rail and shipment. But if there were any specific restrictions on the use of a particular cask, then yes obviously that would be a factor.

MR JACOBI: Is that affected by the approval process for validating task - so we understand from speaking to ARPANSA that they need to be validated in Australia.

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MR GRIFFITHS: Yes.

MR JACOBI: Would that affect the decision?

MR GRIFFITHS: Not really. If there was a cask that is particularly suitable and doesn't have the validation within Australia, then we would go through that validation process, and that is exactly what we have had to do for the AREVA TN81 transport container that we're receiving the reprocessed residues back from AREVA, and that was a process that AREVA as the cask manufacturer had to apply to ARPANSA with our support to try and get the validation. So the Type BU is certified in this case, or the case of the TN81 by the French Nuclear Authority. ARPANSA have an obligation to ensure that they can validate that competent authority approval from France for application of that TN81 within Australia.

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MR JACOBI: Putting aside the physical constraint of the cask, I'm interested in the point in the process that the transport plan itself - we heard about transport plans this morning in evidence - about when the transport plan comes to be developed.

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MR GRIFFITHS: The transport plan, for example for the return of waste, we started developing that earlier this year. So for us that was slightly different to a spent fuel shipment in that we needed to develop new licensed facilities for actual storage of the returned waste. So as with all our nuclear projects, this was just another - a project plan was developed and at some point we knew that we'd develop the transport plan. For us we needed to have engaged an external supplier of the transport logistics within Australia, and when they were on board then obviously they're a key component to developing the transport plan.

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15 So we covered the nuclear and the radiological aspects which are largely underpinned by the cask validation and the certification, but we needed their input into how the transport was going to occur. So the transport plan was submitted over the July-August time to ARPANSA for their consideration, but at that point we needed to be providing them, as you would understand, with specifics as to who was going to be conducting the transport, how the package was going to be handled at the port, where the specific port was. So it was only once some of those contractual arrangements had been finalised that you can then start developing the transport plan.

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25 And as with the majority of these, they will go through a concept phase, so we would have an idea as to which port we'd like to use. A lot of those would be driven by the nature of the transport itself. Some of the ports that are close to Sydney are fully containerised, so they only handle ISO containers. Obviously our transport didn't fit with those ports. So we had a concept as to how we would have to handle certain transports, but it's only once we've really determined the who and the where that we can develop the transport plan.

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MR JACOBI: So in terms of sequencing am I right to understand that once one conceives of the idea that one wants to transport nuclear material, one starts at the level of logistics provider - - -

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MR GRIFFITHS: Yes.

MR JACOBI: - - - and moves from there through some initial thinking about cask and cask use - - -

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MR GRIFFITHS: Yes.

MR JACOBI: - - - and proceeds from there to think about the transport safety plan because that will require to have built in it some of those earlier steps?

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MR GRIFFITHS: Yes. And I think maybe the next transports - everyone might be slightly different. You know, if for example ANSTO is looking at bringing back waste from the UK and we use exactly the same transport flask then some of the order in which we do things would be slightly different. So we would know, for example, that that cask had been through a validation process. There might be some other priorities for us.

There have been some changes within the commercial framework and the arrangements with the specific ports that we've used, so those were operated at the New South Wales state level then they applied, so that was a change that we have only realised really through the return of waste process that wasn't in place when we were shipping fuel out. So it's really working out exactly what we need to do, who we need to engage with, and then as part of the project management process working out which are the priorities.

MR JACOBI: In terms of the sort of time periods involved in preparing a transport safety plan, perhaps we can contrast the position with respect to sending out spent fuel and bringing back reprocessed waste. What sort of time frames are involved in preparing a transport plan?

MR GRIFFITHS: Something of the order of maybe six months, but it wouldn't be six months continuously. You know it would be a case of - the transport plan largely brings together the work that will have been done in the background. So we will have conducted rigorous risk assessments through the loading of the cask, through the on-site handling, and at a generic level the issues related to transport.

So we will have undertaken those risk assessments which will feed in ultimately to the transport plan, but also support numerous other approvals that are required under Australian legislation, for example whether it's a controlled nuclear reaction under the EPBC Act. If we're applying for a waiver for that, then obviously that would need to be supported by risk assessments. But those same risk assessments would then form part of the transport safety plan as well.

COMMISSIONER: Could I just move off the spent fuel for a minute and talk about the activities within ANSTO? I imagine there's an enormous amount of transporting of nuclear waste and products. Can you just give us an outline of exactly what it is in terms of transportation within ANSTO that occurs? What's a general sort of activity?

MR GRIFFITHS: We will be shipping nuclear materials fairly frequently around ANSTO on a - and indeed from ANSTO. Our main movements, Commissioner, would be related to the transport of nuclear medicine.

COMMISSIONER: Right.

MR GRIFFITHS: So we produce 10,000 doses of nuclear medicine a week and deliver those to hospitals either by road transport or road transport to
5 Sydney airport for overseas dispatch.

COMMISSIONER: That process is well-understood with that number of activities.

10 MR GRIFFITHS: Yes, it is. It is very different from the handling of spent fuel, and is an activity that tends to be done with panel vans rather than (indistinct) but the same requirements apply in terms of the transport regulations, and in terms of the approvals from ANSTO, but they would tend to be covered by a blanket approval rather than the specific approvals that will be
15 required for a spent fuel shipment. In terms of our on-site movements, we collect radioactive waste from production facilities, and to a lesser extent from OPAL and transport those to waste condition facilities that are managed by my team.

20 If it is concluded that that waste is actually radioactive waste, it goes up to our low level waste store. We also move spent uranium filter cups, which are intermediate level waste, which are specifically related to the production of (indistinct) and as part of every production run a certain amount of additional intermediate level waste will be produced. So again, we have a specialist team
25 that would manage that. They use transport flasks which are - essentially provide the same sort of purpose as a Type B container, but they're not validated as such because they don't go on the public roads. But they are assessed as part of the overall safety case under the waste operations licence.

30 COMMISSIONER: In some of the evidence from submissions that we've received, evidence has been put forward that there are one or two incidents per year ANSTO in terms of the handling of nuclear waste and activities. Is that correct in terms of your general incidents of managing that? What I wanted to get a sense of was just how many movements might there be in a year.
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MR GRIFFITHS: Off the top of my head, Commissioner, I would be guessing in terms of the number of movements, but it would be in the hundreds.

COMMISSIONER: Hundreds?

40 MR GRIFFITHS: Particularly just around waste, probably there may be an order of magnitude above that in terms of the shipments that we send out. As part of our safety culture, we aim to be a learning organisation. In order to do that, we encourage our staff to submit event reports for anything that is out of
45 the ordinary. So yes, we would collect that sort of data that will be related to

transport, but we - I'm not aware of anything that we have had to report to ARPANSA, and we have a very open reporting culture with ARPANSA in terms of transport.

5 COMMISSIONER: What would you have to report to ARPANSA if something went wrong, for instance? What would be the magnitude of - - -

MR GRIFFITHS: The - specifically to ARPANSA, we have to report anything that would be deemed to be a nuclear or radiological accident. So
10 that would be anything that's above 2 on the INES rating. So essentially it would be - an example of that would be if somebody received a radiation exposure that was at or above the legal limit, or again if there was the potential for that to occur. We also would report anything that would be a breach of our licence conditions, and we tend to inform ARPANSA before we've made our
15 own internal determination, simply because it's the regulator's duty to determine whether we're in breach or not, not for us.

So as I say, if we're in any doubt, we provide information to ARPANSA. In terms of maybe some of the reporting issues that we were to put in, may in all
20 likelihood be operational events rather than safety events. So if, for example, as part of a transport of intermediate level waste from one facility to our intermediate level waste store, there was an issue with the flask at the other end and we were unable to adequately lower the consignment, we would report that as an operational issue.

25 There wouldn't be any safety related issue, but again we would track those as part of a process to see whether there's any trends, whether it's an issue that the maintenance regime that we have for the flask would need to be reviewed, or whether we need to invest in a new internal transport flask. So we haven't had
30 any events that - in the time that I'm there that have been serious during transport, but as I say, in order to try and capture things at the very lowest level, we encourage all our staff to report so that we can make a thorough analysis of any more serious potential that we can rectify.

35 MR JACOBI: I just want to come back very quickly to the safety plans, and I notice that there have been about eight shipments of spent fuel overseas since about the mid-90s. I just wanted to pick up the extent to which the plans - there's been some replicability in the plans and the extent to which the planning has been aided by an earlier plan being prepared.

40 MR GRIFFITHS: Absolutely. I think the - particularly with the shipments that went out between 99 and 2009, I think we had six or seven shipments through that time period. The transport plans would have been largely the same, but would have depended on - I guess the only difference is would have
45 been whether we shipped out through Port Botany or Port Kembla. But the

bases of the transport plans would have been the same, would have been informed by the previous one.

5 In the previous answer, one of the things that we want to be is a learning organisation, so at the end of any shipment, even if it's been, as all ours have been, successful and safe, we will always review to see could we have done anything better? So at the end of one shipment, there would have been learning opportunities that we could have applied either with our communications, or with our relationships with either our supply chain or the 10 multiple agencies that supported us through that. But yes, essentially a successful transport plan you would - why would you not use that as the basis for the next shipment?

15 MR JACOBI: Can I just pick up - specifically when we were speaking about (indistinct) we've asked about the extent to which you make a radiophysics assessment or a radiological assessment of the potential risk to the community. I'm just interested how that's done, and what information is included in the plan that addresses that particular risk.

20 MR GRIFFITHS: Largely a lot of it comes back to - in the case of transport, the sort of things that you're discussing with ARPANSA in terms of the testing and the validation of the package design. So these are what we would refer to as deterministic. You try to work out what is the most credible, foreseeable, severe accident that that package could be subjected to, and ensure that the 25 package design - the design basis for that package would ensure that there would be no release of radioactive material from that package.

30 So that forms the basis, really, of the radiological assessment. That tends to be the way that I've applied that in the past in the UK framework. If something has a Type BU certificate, then largely that underpins your radiological risk assessment because it's difficult with say something like the TN81 which is coming back from France. The design basis of that was to withstand the impact of a fully laden F16 fighter jet. It's difficult to think of something more credible than that as a severe accident and if it withstands that without any 35 release of radioactive material then essentially that provides the main control for public transport.

40 For normal operations we look at the road routes, what the potential exposure for people would be, and that would come down to something like a combine breaking down which might - sorry?

MR JACOBI: Not assuming an accident condition, do you make a real world measurement - - -

45 MR GRIFFITHS: Absolutely, yes.

MR JACOBI: - - - of the level of radiation outside the flask?

5 MR GRIFFITHS: Yes, absolutely. That is a key requirement of the transport regulations. So for any movement of radioactive material that we conduct at ANSTO, if it's moving from one building to another, it would have that. If it's a package, if it's a consignment of radioactive waste, we will monitor the outside for contamination and for radiation. As part of the information package that accompanies each package, there will be a consignor's certificate. 10 So if we're shipping out spent fuel, for example, we will be the consignor. We will undergo multiple checks at a number of different points on the outside of a transport flask for both contamination and radiation. All that would form part of the package of information that would travel with that transport. As an example, the transport data file that's coming back with a waste from AREVA 15 is about that thick with measurements that have been carried out on that individual flask.

MR JACOBI: Are you able to - and it may not be possible - given some of the spent fuel transports that you've made, are you able to explain in practical 20 terms what a measurement is assuming normal operation and running conditions?

MR GRIFFITHS: Yes.

25 MR JACOBI: About what the - we've asked this of ARPANSA this morning - about what the level of radiation is outside the flask if you're perhaps standing at the surface or you're standing a metre away.

MR GRIFFITHS: In terms of the bounding conditions in the regulations, it is 30 less than two millisieverts an hour on the outside of a transport package. To put that in context, the average annual dose to people in Australia is about that sort of level. Generally with shipments of this kind the dose rate would be even lower. So we're receiving reprocessed residues from France. The inventory of the TN81 is equivalent to 1181 spent fuel elements that were over 35 there. The dose rate on the outside of the TN81, at the surface of it, is about 10 microsieverts an hour, so a few orders of magnitude below what the limiting criteria would be. At the distance of a metre it's about three microsieverts an hour. So you would have to stand in that position for about six hours in order 40 to get the equivalent radiation dose of a dental x-ray.

MR JACOBI: If we move off the issue of radiation safety and come to the issue of security approvals. The Commission understands that you're required to obtain approvals from ASNO and I'm just interested where in the overall process that you might either go and seek to obtain an export approval or an 45 import approval from ASNO.

MR GRIFFITHS: The export approvals tend to be sort of fairly close to the time of shipment so you know precisely what the inventory is going to be. We would run these in parallel largely, although there is some overlap between
5 ARPANSA's safety and security role. So ASNO and ARPANSA are very interested in the separate transport security plan, which is looking at the security arrangements around that specific requirement. The export approvals really go a lot to the management of safeguarded material so that we know exactly what materials are being exported from Australia and to where, and
10 that lines up with government policy on where radioactive material can go - essentially to friendly countries and to countries that have signed up to the non-proliferation agreement.

MR JACOBI: I also understand with respect to ASNO that it's necessary to
15 provide risk assessments associated with security and have them approved.

MR GRIFFITHS: Yes.

MR JACOBI: Can you explain again where in the process you might go about
20 starting such a security assessment and then what sort of information it needs to address.

MR GRIFFITHS: Similar to the transport plan, the thinking about them starts
25 very early and our operations at ANSTO not only have to be underpinned by rigorous safety assessments for everything that we do but similarly we go through a similar process of risk assessment from a security point of view. So there will be some generic issues that would feed into a transport security plan and we would have our specialist security team that would develop that. There are some differences in relation to the security plan because they rely on threat
30 assessments that our security team would get from their connection to the likes of ASIO or other Australian government agencies that are experts on working out what the particular threat of an individual scenario would be, but again it would be from the security point of view of people who may want to disrupt the shipment, all the way to people who would either want to try and hijack
35 the material or to sabotage the transport.

So there is some overlap between the safety consequences and the security consequences, but the likelihoods of particular events would be different and would be subject to a different determination.
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MR JACOBI: Again, in terms of the period of time that it takes to prepare such a plan, what are you looking at in terms of the preparation of a security plan?

45 MR GRIFFITHS: Around about the same, that that would be something that

we would probably start thinking about six months ahead. Again an answer similar to your previous question, if there is no reason for those arrangements to change then again the previous transport security plan would form a good basis of any future - - -

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MR JACOBI: Does that depend also on the shipper and presumably the route of transport and - - -

MR GRIFFITHS: To an extent. For example, the shipment that's coming
10 back from France, even though that is the responsibility of AREVA until it enters Australian waters, we were quite specific in asking them to avoid certain regions, such as the Gulf of Aden and down the east coast of Africa, which they were more than happy to do. But that was really the extent to which the security plan determined the maritime route. In terms of the transport route by
15 land, we work extensively with multiple agencies, both federal and state, and the transport route essentially is determined by New South Wales Police.

So again, going back to the transport safety and the transport security plan, they tend to be finalised fairly close to the point at which the shipment is being
20 made because it's only at that point that you've got sufficient information to provide to both ASNO and ARPANSA to answer their specific questions around the route.

MR JACOBI: I want to pick up as well that I understand from an answer you
25 gave earlier that the transport of spent fuel might well be a nuclear activity for the purposes of the EPBC Act. I'm just interested, will that always be the case or is that something that will always need to be addressed?

MR GRIFFITHS: Specifically at the moment it is one of the triggers as a
30 controlled nuclear action. We have made the case for the return of waste and the transport of radioactive waste is also another trigger, but we've made a case for a waiver largely based on the fact that it is a Type BU container so therefore the potential for any significant environmental consequences as a result of the transport accident were negligible. We have received not advice
35 or a determination from the Department of Environment that it's a not controlled nuclear action if carried out in a prescribed manner, so they've given us essentially a list of conditions that we need to comply with in order for it not to be considered a nuclear action. Again, that will be an option that is available for a spent fuel shipment, but ultimately the determination is by the federal
40 minister for the environment.

COMMISSIONER: I just want to pick up just one final matter, and that is we understand that it's necessary to get an export permit - - -

45 MR GRIFFITHS: Yes.

COMMISSIONER: - - - and I'm just wondering what is the purpose of that.

5 MR GRIFFITHS: Again, it's to ensure that the material that is being exported from Australia is going to countries and for a use that lines up with Australian government policy. Essentially, if nuclear material or even radioactive material is being exported, then the obligation on the person who is making that consignment is to ensure that it's being controlled through that process, and I think that's just a reasonable legislative control to ensure that organisations 10 such as ourselves, or if it's a private industry, exporting such material are complying with all required obligations.

COMMISSIONER: Can I return to the issue of accidents, and, again, to some submissions that we've received. There was the report of an accident in 15 December 1980 where there was a truck accident and a spillage of what was purported to be dangerous radioactive material. I understand some police officers and other people were apparently ill, leading to a doctor to claim that this was a cover up by ANSTO. You obviously would have known about this activity. Can you just run through what happened with the spill and what the 20 consequences were?

MR GRIFFITHS: Yes, Commissioner, I can certainly tell you what I am aware of. I wasn't aware of this, obviously, at the time, that was 35 years ago, but it came to light again in, I think, 2012 - - -

25 COMMISSIONER: It did.

MR GRIFFITHS: - - - when there was a bypass being constructed around Kempsey close to the sight of the accident, and we were contacted by the roads and maritime agency in New South Wales who were part of that and asked 30 what we knew about it. We did quite an extensive amount of research, and essentially it was absolutely nothing to do with AEC or ANSTO at the time, it was a mixed load that was being transported using a private vehicle, Lorry, that was sadly involved in a fatal car crash. My recollection is that it was carrying 35 a mixed load of pesticides, lead, DVT, some Chinese food stuffs and two sealed radioactive sources, one was amorous in 241 and was (indistinct) 137.

Our investigations shows that it was a geotechnical company that were exporting the source through the Port of Brisbane, we believe, for repatriation, 40 that they were at the end of the life and they were asking the supplier to take them back. The only involvement that AEC really had at the time was that we were asked for help, and there was a senior technical officer who happened to be on holiday in Port Macquarie at the time we broke his holiday to go and give some advice to the police.

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As a result of the event in 2012, as part of our relationships with state agencies, three of my team deployed to Kempsey to do some reassurance monitoring, there was no sign of any radioactive contamination at the site which supported what we subsequently found out, which was that sealed sources, which are in
5 essence designed against similar criteria for a Type B container, were immediately loaded onto another Lorry and continued their journey out through the port of Brisbane. Again, that substantiates, I think, what ARPANSA was saying this morning about the robustness of these transport containers.

10 COMMISSIONER: So there was no evidence of leakage of the - - -

MR GRIFFITHS: No. I read the reports at the time of the local doctor and I found that pretty hard to believe, based on my knowledge of radiation protection, but I think the subsequent investigation that was carried out within
15 New South Wales also cited evidence that the Department of Health had deployed a doctor and I think there were some other medical investigations that were undertaken that did not provide any substantiation of the link to radiation exposure, but there were, you know, other dangerous goods that were being carried and I think some of those had been buried at the site, that the radiation
20 sources - there was no evidence of any leakage, which is what I would expect from the transport of sealed sources like that. They weren't buried on the site, they continued their journey almost immediately on to Brisbane.

COMMISSIONER: Thank you for that.

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MR JACOBI: There's two final issues. You mentioned the obligations of ANSTO aren't delegable to your contractors, and I'm just interested in how issues of insurance with respect to transport are managed in that context.

30 MR GRIFFITHS: The insurance aspects have probably been the ones that have been the most tricky. As you've mentioned, there are a suite of regulatory approvals that were required, there was a lot of planning that needs to be put in place. All those are largely within our control and are relatively business as usual for us. The contracting aspect, again, have been sort of fairly
35 straightforward, apart from the issues around insurance and indemnity, because a lot of the companies that we deal with their insurance companies would specifically exclude class 7, which is radioactive material.

We've had that with our primary principal transport contractor and also with
40 the port that we plan to use. As a government organisation, we have our own insurance cover which originally we used to source from a specialist nuclear insurer. We now have just extended our normal arrangements with Concur as the federal insurer, so we have access to a certain amount of insurance. Above that capped level, we also have access to the government deed of indemnity, so
45 we've had a number of conversations with our insurers and with the AGS to

work out how we extend our cover to cover our Commonwealth contractors.

5 It's been a lot of time for our legal counsel and a lot of work from the point of view of Concur and AGS, but we have successfully applied our coverage to our Commonwealth contractors. That was, I guess, an interesting process and one of the changes that have occurred between 2009 and 2015, as I was saying, for example, the ports have essentially been privatised, so their access to similar insurance arrangements under New South Wales government have changed now to requiring a more commercial insurance.

10

MR JACOBI: You express in terms of the haulage, I think, in the ports, I gather it doesn't apply to the shippers. They've got their own insurance arrangements.

15 MR GRIFFITHS: Yes, and, again, there is a specific nuclear liability as to whether it rests with Australia or whether it rests in the case of the material that is being returned with France, and that is, again, a legal aspect that needs to be worked out as part of every shipment. I think, in essence, the shipments don't really pride a significant challenge in terms of overcoming huge technical
20 obstacles, but there are a number of logistical, contractual and legal aspects that need to be addressed, and the more often you do it the easier it gets and the more familiar it gets.

25 MR JACOBI: The final thing I want to come to is the issue of the extent to which the committee are informed or are provided information about your activities. I'm just interested to understand what really are the lessons you've learned from having done nine shipments about the way that you communicate information with the community.

30 MR GRIFFITHS: You can never do enough, essentially. I think every time we do a shipment we do more engagement and more communication, but there will always be people who feel that they've not been communicated with. In the case of the intermediate level waste that's been returned from France, we set up a website about two years ago. Right at the start of the project, we
35 realised that communication was going to be a fundamental aspect to that, and we had a separate communications project running hand in hand with the technical issues, so, as I said, we went as far as having a website communicating with our local council.

40 As part of our licensing process, ARPANSA ran their own separate community engagement and public information sessions. Closer to the time of the shipment, we've engaged with all federal and state MPs along any possible route that the transport could go, and as far as possible we've tried to be as open and transparent as we can, bearing in mind that there are certain aspects
45 related to security that we are then asked by our partner agencies not to

disclose.

5 COMMISSIONER: Mr Griffiths, thank you very much for your evidence,
again. We very much appreciate the work you've put into this. We will
adjourn, now, until 1645.

ADJOURNED

[3.23 pm]