ROAD SAFETY COMMITTEE

INQUIRY INTO IMPROVING SAFETY AT LEVEL CROSSINGS

Melbourne — 7 April 2008

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Mr R. Barnett, chief executive officer, V/Line Passenger.

The CHAIR — Thank you very much for attending today. Welcome to the public hearings of the Road Safety Committee's inquiry into safety at level crossings. All evidence taken at this hearing is protected by parliamentary privilege as provided by the Constitution Act 1975 and further subject to the provisions of the Parliamentary Committees Act 2003. Having said that, any comments you make outside the hearing may not be afforded such privilege.

As you can see, we are recording the evidence today, and will provide a proof version of the Hansard transcript at the earliest opportunity so you can correct it as appropriate. If you could just state your name and the organisation that you work for and proceed with your evidence, we may ask questions along the way.

Mr BARNETT — Absolutely. My name is Rob Barnett, I am the chief executive officer of V/Line Passenger. Today I am here to summarise V/Line's views on the very important issues of level crossings. Unashamedly our primary focus is on the safety of rail passengers, V/Line's employees and the employees of other accredited rail organisations in our role as the track manager for the regional rail network. I think it is important to preface my remarks by saying that the environment is changing on our road-rail interfaces. We see more road traffic, we see the characteristics of the road traffic as changing, and we see more trucks, bigger trucks, longer trucks. There are more passenger train services and less freight services on the rail, and we see changes in community behaviour. We see that more and more people are less inclined to take time and, I guess, behave appropriately around the issues of risk at level crossings.

V/Line supports a hierarchy of controls to improve safety at level crossings. The hierarchy is, in order of importance or impact: grade separation; crossing closures; full crossing protection, including lights, bells, booms and advanced warning signs; and reduction of specific location risks identified using the ALCAM methodology, leading to issues like vegetation clearance, improved signage, elimination of short stacking of motor vehicles et cetera. We believe in the reduction of road speeds at all crossings to a maximum of 80 kilometres per hour but preferably to 60 kilometres an hour at crossings without active protection. We believe in a reduction in heavy vehicle traffic around level crossings where possible. V/Line supports further education of road users to achieve behavioural change around level crossings. We support the enforcement of the road laws around level crossings. We recognise that the cost to deal with safety at level crossings is enormous. We believe that the work needs to be done using all of the controls that I previously mentioned, but given the relative costs of the higher level controls, such as grade separation, we believe that significant leverage can be gained from the lower order controls.

Again, putting it in context for the committee, I am sure you are well aware of the facts around level crossings. The number of level crossings in Victoria is now stated to be 1955, of which regional crossings are 1719. I note some of the numbers are changing. I think that the Victorian rail level crossing committee can talk to those, but it has just completed a recent survey, as I understand it.

The CHAIR — Just on that, I am not sure whether you would know, but does that include the occupational crossings as well?

Mr BARNETT — No, it does not; they were on top. Regional crossings constitute 88 per cent of all level crossings in Victoria. The number of boom barrier crossings is 358, of which 177 are in the regions. Crossings with flashing lights and bells constitute 399, of which 373 are in regional Victoria. Crossings with only stop signs are 160 in the state, of which 157 are in regional Victoria. Give-way signs are 1019, of which 996 are in regional Victoria.

If we look at our data anecdotally for V/Line collisions since 2004 until October 2007 — when we submitted our report to the committee — we had 26 collisions, in which there were 20 fatalities, including the 11 in Kerang in June 2007 and two at Trawalla in April 2006. V/Line is averaging approximately one near-miss incident every week. In total we have seen about seven level crossing incidents per year over the last two calendar years, so we are seeing an increase in the rate of accidents. I am open to questions.

Mr TREZISE — With the near misses, you have had the incident — what happens from there? I guess the loco driver reports the incident, and what happens from there?

Mr BARNETT — Correct. What occurs is that the — and it might not just be a loco driver, by the way. I think the committee had the opportunity to travel on one of our VLocities. Our driver will report that to train control. V/Line now, as the track manager, is responsible for train control. Train control will then liaise with the transit police, particularly if we get details about the motor vehicle that was involved. We meet monthly with transit and go through all of the data, and they actively pursue the motorists, if they can be found.

Mr TREZISE — If the vehicle can be identified, they are pursued?

Mr BARNETT — Yes.

Mr KOCH — What is the criteria for a near miss, Rob?

Mr BARNETT — A near miss from our perspective is any incident the driver thinks is relatively

close. If you talk to Public Transport Safety Victoria, a reportable near miss is when the emergency brake application of the train is applied.

Mr WELLER — So we have these near misses, and other than pursue the driver of the car, do we look at what we could do at the crossing to make it safer?

Mr BARNETT — Absolutely. As you are aware, I think, the Victorian level crossing rail safety committee collates all of the data from all of the accredited rail organisations. The information in the main comes from PTSV, or Public Transport Safety Victoria, and through that active programs are developed, looking crossing by crossing at how safety improvements can be made. Similarly, as a network manager we do the same thing.

Mr WELLER — How long does that take?

Mr BARNETT — As you can appreciate, the number of crossings is enormous, and the number of near misses is significant too. I think, again, the methodology that has been used in the more recent past is to try to move to a risk-based approach using the ALCAM model. One of the issues with the model, as I see it, is the overlay — the ALCAM model is to some degree what I see as a predictor. Of course we then get factual evidence from either accidents or near misses that needs to be overlaid, and that process is now happening at a national level to try and incorporate the two elements.

Mr KOCH — Rob, your near misses, do they relate purely to passenger or to freight also within V/Line?

Mr BARNETT — Our recent data is passenger. We have only been the track manager for the last 12 months, so some of the historical data around that from our perspective is a bit sketchy.

Mr KOCH — Okay. Have you any idea of what the freight side of V/Line might — is it comparable to your own statistic?

Mr BARNETT — Again, if we look at the relative number of services, on the passenger side we are approximately, in round terms, 1500 services a week. The freight numbers are much, much lower, so you suspect the relative proportion of incidents are in the same ratio.

Mr KOCH — V/Line inspects tracks every 10 to 14 — —

Mr BARNETT — Every day; we have people out there every day, but there is a cycle — —

Mr KOCH — No, that is fine. You have got permanent people checking tracks, but how often do they actually check the same track?

Mr BARNETT — They have a cycle. It depends on the traffic on that corridor and the class of track.

Mr KOCH — We were under the impression from a recent field trip that it was either 10 or 14 days.

Mr BARNETT — It is of that order.

Mr KOCH — All tracks on a cycle.

Mr BARNETT — Yes.

Mr KOCH — In relation to anything like long grass or mounds of ballast or dirt or what have you that give a sight problem or affect line of sight, how long before a correction takes place after those inspectors put in a report?

Mr BARNETT — If they are found by the local gangs, that would then be escalated through into their management system, and I would imagine that they are dealt with fairly routinely.

Mr KOCH — Can you come back to us on that and tell us? We are of the belief that some of these things, although they are reported, are not corrected for a greater period of time than we would see as reasonable, so could you respond in relation to that to the committee? That would be appreciated.

Mr BARNETT — Yes.

Mr KOCH — The other thing that I would like to raise on behalf of my colleague Terry Mulder, who is not here today, is in relation to livery colours on V/Line passenger trains particularly. Is there further work to be undertaken on that or does V/Line see the safest colours are currently being used? What is V/Line's position in relation to livery colours, especially from a safety point of view?

Mr BARNETT — There is an Australian rail code of practice with regard to what is called train conspicuity. V/Line is undergoing a change to its livery in order to be fully compliant with the code. By and large quite a few of our vehicles are compliant now. What is missing is mainly in the area of how much yellow is on the front of the rolling stock, and that is being addressed with a program over the coming months. We expect to complete the program early into the new calendar year. It is ongoing at the moment. You may have seen, if you travel on the V/Line network, there is a change going on in the appearance of the trains, and it is related to compliance with the code.

Mr WELLER — What about the freight carriages, are they — —

Mr BARNETT — We are not responsible for freight cars of course.

Mr WELLER — You are passenger; that is right, yes.

Mr BARNETT — We do not have a freight business; we are just the track manager. Again, it is up to the individual accredited rail organisation to adopt the code.

Mr LEANE — We have seen from the submission that they commenced in 2005 to install level crossing monitoring. How is that going, the rollout?

Mr BARNETT — With what is called remote monitoring — is that what you mean?

Mr LEANE — Yes.

Mr BARNETT — So that we can get information from the crossings as to how they are behaving; it is going pretty well. Certainly as a relatively new manager responsible for the track, a lot of good information comes from the telemetry that is very useful. It helps us react more quickly to issues that are uncovered either by the public or by our services.

Mr LEANE — There were 370-odd crossings with just lights. I take it they are part of the system that is being monitored as well?

Mr BARNETT — I would have to come back and give you specific details. My understanding with the system is as the crossings are being upgraded, all of the new telemetry is installed as well. You can imagine that if a crossing has lights, bells and/or booms, then there is information to be gained from the crossing. If it is only a give-way or a stop sign, there is not too much information to be gained.

Mr LEANE — I suppose something of interest is something I just heard this morning, the term wrong side failure, where the battery backup to the lights either runs out or fails as well at a point in time when the mains has gone down. Do you know of many instances of that happening?

Mr BARNETT — I have not heard of any instance of that happening, but there is a possibility, again, because the crossings are powered through mains electricity, if you have an instance such as occurred in the state recently of power being cut off for significant periods of time, there is a battery backup that over time will degrade.

Mr LEANE — As far as the booms are concerned, they come down anyway.

Mr BARNETT — The benefit of the backup is the system fails safe. Failing safe, what does that mean? If it is armed with a boom, it comes down.

Mr LEANE — You do not know offhand of instances where we have had wigwag lights and the backup power from the battery running out and them not operating?

Mr BARNETT — I have not heard of it since we have been the track manager. I was aware there was a program some time ago, I believe through Pacific National and the state. They were entering into a program to upgrade some of the battery supplies.

Mr LEANE — I imagine where you do have signals that do communicate, that would be an early trigger for the technician to get down there.

Mr BARNETT — That is what it is for. That is what the remote monitoring does: it provides a system of alarms back to Centrol, or to a central location, to give us indications that there are issues at a level crossing.

Mr LEANE — I imagine the technicians would have batteries on board themselves and all the kit.

Mr BARNETT — I suspect that is the case but I could not give you that definitively. The role of the technician is to go and investigate what the problem is and get the level crossing operating back to its normal state.

Mr KOCH — So the level crossing monitor does not actually tell you what the problem is; it just says there is a problem. So it could be wrong-side failure, it could be — —

Mr BARNETT — No, the level crossing — as I understand it; I am not a technical person on the electrical side — provides quite a bit of information about what is happening at the crossing. But I could come back and give you definitive feedback if you wish.

Mr LEANE — My understanding is, just from our trip, that it sends a series of different alarms that would tell you what the issue is. In an instance such as last week, when we had the bad weather and power down everywhere, do the servicemen get to the point where they hook up generators?

Mr BARNETT — Look, I am not aware of such cases at the moment — but you can imagine with the sheer number of crossings that we have that is a fairly big task.

Mr WELLER — Rob, in your presentation you spoke about taking trucks off roads where these crossings are. How realistic do you think that is?

Mr BARNETT — I think the issues around risks to safety at what we call the road-rail interface need to be carefully considered, particularly in many areas of regional Victoria. I think that we have a fine road network, and I just question whether we need to be exposing that level of risk at all of the crossings. One of the, if you like, administrative controls that really costs very little money is talking about restricting the traffic around the level crossing, and it is quite an effective control measure in regards to the safety outcomes that

will happen if there is a collision.

Mr WELLER — We are not going to say trucks cannot cross the railway line at the Murray Valley Highway?

Mr BARNETT — Clearly not the major locations. If we look at the Murray Valley Highway now there is a set of boom gates in place, so outside of grade separation we are probably at quite an effective level of safety, provided the motorists follow the road rules. Also at that location I think there is now an advanced warning sign — so it is almost as good as we have. But we would also advocate at locations like that that the road speed be reduced. The crucial issue around level crossings that we see, is that by and large, about 99.9 per cent of the time, the train is doing what it is supposed to do. The incidence of — —

Mr WELLER — I do not disagree with that, but how realistic is it that we are going to say, 'Trucks do not go up this road?'.

Mr BARNETT — Personally I think it is very realistic. If you go out into the local communities — which I am sure you folks know far better than I do, as representatives of the community — there is a growing angst around truck traffic in the communities.

Mr WELLER — In the communities that I come from if I were to say, 'Trucks aren't allowed up this road', among the people who use that road there would be a lot of angst.

Mr BARNETT — That might be the case but I think you will find, particularly in regional Victoria, which is the area that V/Line really represents, there is an increasing angst about the level of road traffic in the towns.

Mr LEANE — Rather than denying truck access, would it be easier to funnel a number of roads close by into one crossing?

Mr BARNETT — We agree. And they are the sort of administrative controls we are talking about. Again, we are advocating in many communities where there are multiple level crossings to have a close look at whether we can close some of the crossings and therefore reduce or eliminate the risk — but all in due consideration with the communities.

Mr KOCH — Rob, in relation to fail safe, recently I found myself at a level crossing with everything working but no train. I have to say to you a B-double truck coming the other way I do not think dropped 1 kilometre an hour and went straight over that line, red lights flashing, no boom, and left with red lights flashing. It was between Lismore and Cressy. Firstly, what sort of incidence is there in relation to these instances? And secondly, what is the science behind rumble strips? We have seen recently where rumble strips have been in place we have tragically lost road users. Could you background the committee a little bit on the science behind the rumble strip — or as an antidote?

Mr BARNETT — David, I think that is outside my expertise. The rumble strip is a road protection measure and I am a rail operator.

Mr KOCH — I appreciate that but I would have thought there would be some correlation between the rail and road user from your point of view. Although these things would be put in by a road authority, they would not be put in without dialogue with the rail user.

Mr BARNETT — Not necessarily.

Mr KOCH — I will save the question. You might be able to give us some idea of the incidence of fail safe.

Mr BARNETT — Again, the issues around the initial question I think you triggered are that there are instances where the crossings may go active when the train is not present, and there are situations where that can occur. We have already said that if the level crossing has a problem with its control system, it will fail safe. There are also instances of local vandalism where kids, particularly, will activate the crossings. We have several locations where it becomes part of the entertainment for the local children to place coins and other metal on the track to short out the circuits and get the crossing to activate. We deal with those issues on a continuous basis.

Again, I think you gave a good example that the lights were flashing so you slowed down and behaved — —

Mr KOCH — I stopped. I did not just slow down; I stopped.

Mr BARNETT — Yes. You behaved entirely appropriately. I had the same experience myself last week during the storms, when many traffic signals were not working throughout the metro area. What is surprising is that people behaved quite reasonably, and there were very few instances that I saw going home that night. But there are members of the community — and I guess from our perspective we get terribly concerned about the heavy vehicle traffic and how it behaves. To some degree I guess it is anecdotal evidence — we do not have a lot of hard facts — but typically what we are seeing is that in those organisations, perhaps not the larger organisations, but the trucks coming from smaller, medium-size companies, these folks are under pressure, and we see them taking shortcuts. It is disappointing but I think

what that means is we need to design systems to reduce risk to be able to manage the behaviour of some of these folks.

Mr TREZISE — Rob, do you have dialogue with the transport industry and with the trucking industry? I guess you do with larger organisations, such as Toll and Linfox. What about those smaller companies that are of concern to V/Line?

Mr BARNETT — Yes. I am on the board of the Australasian Rail Association, and we rely on discussions at the association level to try to talk to the trucking industry. Through the ARA we have many dialogues with those folks. I think we are starting to see some acknowledgement that this is a significant issue for them. We are relatively comfortable, from what I have seen, with the systems and training and the management of fatigue, drugs and alcohol and so forth, of the larger truck operators, which start to look like the systems we have in the rail industry. But that is certainly not the case for the medium and smaller owner-operators. I think, again, anecdotally, in a lot of the instances we have, the people responsible for those trucks come from that sector, the smaller sector.

Mr TREZISE — Because of course we have heard time and time again that these days it is not only that the truck driver is going to come off second best, but with B-triples for example, it is now the truck posing a threat to the train itself and of course the passengers.

Mr BARNETT — Absolutely. From V/Line's perspective, if I take a hard-nosed approach, relatively speaking when it comes to motor cars, we will win each time there is an incident. It is very unusual that someone on the train will be physically hurt, and very unusual, given the locations of the level crossings and the track geometry there, that the train will be derailed in a catastrophic fashion. We will invariably survive that incident, outside of the stress and trauma that the train driver, our crew and some passengers on the train may suffer, but when it comes to a truck it is entirely different, particularly as the construction of our trains over time starts to change. As you are probably aware, worldwide there is a shift away from locomotive driven passenger services more towards diesel multiple units. Our new trains — the V/Locitys — are pretty much the norm throughout the world. These vehicles do not have 150 tonnes of steel sitting in front of them when they have a collision. As you no doubt have all experienced, you are right there at the front. You can imagine what goes through the minds of our staff every day at every level crossing. It is frightening.

Mr WELLER — Rob, how much money does V/Line spend on research and development on technology for use at crossings?

Mr BARNETT — Very little. Again, if you look at why that is the case, V/Line is a franchise, as you may even appreciate. Even though we are a wholly-owned government entity,. we are treated just like any other franchise operator according to the director of Public Transport. We are very much like Connex or Yarra. We rely solely on our funding from the director of Public Transport and he does not fund us to do any research and development into this area.

Mr WELLER — Do you do studies of what is operating in other jurisdictions?

Mr BARNETT — Yes, we do.

Mr WELLER — Is there anything operating in other jurisdictions that could be used here in Victoria?

Mr BARNETT — In regard to what is happening at the level crossings?

Mr WELLER — Yes.

Mr BARNETT — By and large the closest analogies we find to the situation in Australia, certainly in regional Victoria where we operate, are in rural United Kingdom. I guess the further out you go into the network it looks kind of like that. In many other areas what we note is the absence of road-rail interfaces; grade separation is pretty much the norm in most places these days, particularly at the higher operating speeds. There is some development work going on of new applications. One of the key problems to some degree that we are seeing is that the cost of the implementation of these things is significant. Some of the lower cost applications that can be installed do not necessarily fail-safe and so that is an issue.

Mr WELLER — What you call a significant cost?

Mr BARNETT — Again, if you look at just booms, bells and lights, typically that can be of the order of half a million dollars a location. Look at the sheer number of locations we have. This is a big community issue. What we are talking about here is a significant legacy issue for all governments. This is not something that this government has put in place; it is not something the last government put in place. This has been here since rail was invented in this country. It is unrealistic to expect, given the huge budgetary issues we have not just in rail but also public transport, education and health, that this issue is going to be solved in 5 minutes. All parties need to recognise that. That is why we advocate this hierarchy of controls approach. There are things that we can do at relatively low cost to help attack risk and improve safety. Will they solve the problem? No; but they will improve the situation.

Mr WELLER — What are the low cost things that you can do?

Mr BARNETT — There are relatively low-cost technologies, that look like road treatments, using induction circuits to detect the presence of trains powering off things like solar power and so forth. The issue with these systems is that they do not fail-safe. If something happens to the system and it becomes unhealthy, it will not turn the lights on. So that is a problem. The community then expects, if it comes across a level crossing that has some sort of safety protection on it, that if it is not working it must be safe. That is one of the issues that we all have. Systems like this can be installed, as I understand it, for around $30 000 a location. So particularly in remote areas it would be a fabulous thing to do, but the downside is if something happens to the system it will not operate. Here you are as a local motorist, you will come across the system, it is not working so therefore there is no train.

Mr KOCH — What are the likely instances of that, Rob? I mean, it is a statement to make, but can you substantiate what you are actually saying there? I would have thought that was a very, very small risk and at $30 000 would be well worth taking the opportunity.

Mr BARNETT — When we took over as the track manager, the regulator — the director of public transport safety Victoria — wrote to us seeking our views on the technology. We absolutely support it, provided there is sufficient rigour around identifying the failure mechanisms and what their probabilities are.

Mr KOCH — Have you had any responses to that? Is it 95 per cent? Is it 99 per cent? Is it 87 per cent?

Mr BARNETT — We do not know.

Mr KOCH — It is a reasonable response from your organisation, I accept that. But does the industry have a safety area within the installation, be it 98 per cent, be it 99 per cent?

Mr BARNETT — At this point there is insufficient data around that particular device to make that judgement.

Mr KOCH — Those judgements will not be made until some installation takes place, I should imagine. Ultimately it has to be put on the ground and proven up.

Mr BARNETT — My understanding is that there is a trial for that particular device.

Mr KOCH — Under way?

Mr BARNETT — Not under our jurisdiction, but I understand there is a trial.

Mr LEANE — I would imagine — correct me if I am wrong — that trial would be trialling the detection technology and at this stage it is not detecting every time; is that it?

Mr BARNETT — I have not heard that. I think the issue, as I understood it, is more about the reliability and the failure mechanisms of the device. My understanding is that this is what is being termed the low-cost level crossing device, and that it was implemented or trialled some years ago. It is not new. It has been around for some years. I thought it originated in South Australia and I thought there was one location in Victoria where it was being trialled as well.

Mr LEANE — Do you know who is doing that, Rob?

Mr BARNETT — No, I do not. In the main, the department, DOI, is coordinating that effort and so you could probably find out through that department.

Mr KOCH — Rob, as the manager of regional rail, has V/Line identified how many low-use crossings that it sees could feasibly taken out of the system, and have approaches been made to local governments for that sort of information, which to me is really removing the responsibility? They in actual fact do not operate the railway line, but is there a list of those crossings in regional Victoria that V/Line is aware of that may fall into that category — low use, therefore remove totally?

Mr BARNETT — No, David, there is not. Essentially the way it is done at the moment, and my understanding again through the Victorian railway level crossing committee is that this approach has been changed; to some degree the state or the DOI has coordinated those efforts. There is about to be a program, as I understand it, involving the local government authorities — they have an organisation they belong to, the MAV — and there will be an active program where they will start to identify with groups like V/Line and Connex, I suspect more V/Line as distinct from Connex, areas for opportunities to close crossings. The issue to some degree is not just a matter of shutting the crossing. There are some issues around the cost of the road treatments that need to be put in place, and so forth. We appreciate it is not a trivial exercise, but again we think it is something that is worthwhile doing.

Mr KOCH — We would like to think some users might be involved in those conversations more so than just V/Line and LGAs.

Mr BARNETT — That is who the local councils are representing — their ratepayers. I assume they have their normal processes for making those decisions involving their constituents.

Mr KOCH — I refer to user associations.

Mr BARNETT — Okay.

Mr TREZISE — Just thinking about those road crossings — and obviously I am far from expert — but the risk is actually, for example, the vehicle crossing the crossing. So, for example, if you have 100 crossings and one truck going over each crossing, you have had 100 trucks cross a crossing. If you close all those crossings except one, you still have 100 trucks going over a crossing. I am concerned that there might be a false sense of belief that closing these crossings will solve the problem; if you close half the crossings you still have the same amount of trucks — you are just doubling the amount of trucks crossing at each crossing.

Mr BARNETT — I suspect that what it does is, if you reduce the number of crossings, your ability to then invest in high-order treatments of those crossings goes up. Okay? So instead of trying to put booms and bells at 1000 crossings, now I am only doing it at 500. It is quite a different investment equation.

The CHAIR — Are you aware of any jurisdiction that would use a non-fail-safe technology anywhere?

Mr BARNETT — At this stage I am not. As I understand it, there is the royal order of signalmen and this is completely abhorrent to them and they will not support such an approach. It is only people such ourselves, who are relatively laymen, who would say, 'Wait on, we need to balance the costs and the benefits'. Again, until recent times the industry would not even consider such a trial or a suggestion such as this. At least now it is on the table and being actively discussed.

Mr TREZISE — Has V/Line ever considered strobe lighting on its vehicles?

Mr BARNETT — In the recent times I have been there, no. When I have raised that — and I think it is one of the outcomes of the officer of chief investigators, again, for us to review that — by talking to more of the experienced operators in the industry, the discussion when it was previously reviewed was that it raised other concerns regarding safety. I guess there were sufficient negatives to offset the positives.

The CHAIR — Thanks very much for your time.

Mr BARNETT — Thank you.

Witness withdrew.