

EDUCATION AND HEALTH STANDING COMMITTEE

INQUIRY INTO THE CAUSE AND EXTENT OF LEAD POLLUTION IN THE ESPERANCE AREA

TRANSCRIPT OF EVIDENCE TAKEN AT ESPERANCE WEDNESDAY, 2 MAY 2007

SESSION ONE

Members

Dr K.D. Hames (Acting Chairman)

Mr T.G. Stephens

Mrs D.J. Guise

Mr T.K. Waldron

Mr M.P. Whitely

Dr G.G. Jacobs

Mr P. Papalia

Hearing commenced at 9.03 am

WATTERS, MR TREVOR

General Manager, Strategic Development, Magellan Metals Pty Ltd, examined:

SCOTT, MR PATRICK

Managing Director, Magellan Metals Pty Ltd, examined:

The ACTING CHAIRMAN: Ladies and gentlemen, to start with, there are a couple of housekeeping issues. Firstly, the microphones that we have before us are different from those that we are used to. We need to speak directly into them, as I am doing now. I need to make sure that everybody can hear me as we go, so please do not hesitate to put up your hand and say you cannot hear, if that is the case, any question or answer. Secondly, this is a committee of the Parliament, and it runs as Parliament would normally run, or, for those of you who have been to council meetings, it is similar to council meetings, which means that everybody is very welcome to be here, but nobody is able to participate in the inquiry. Therefore, I ask you all, please, not to call out or interrupt or submit your own questions during our questioning time. I hope you will all be able to cooperate with that today. The first part of the inquiry will be with Magellan Metals. They are the gentlemen on my right, and with them are their lawyers, and you will see their lawyers seated behind them. The other issue is that we have our Hansard reporters here on the left. The Hansard reporters will record everything that is said by us and the witnesses. If there is any noise made during those recordings, it makes it very difficult for Hansard to hear, so I just say to you again that you are welcome here, but please do not participate.

I now officially open this meeting of the Education and Health Standing Committee. There are some standard requirements that I must fulfil before we start. This statement is to the witnesses. I need to say the following. This committee hearing is a proceeding of Parliament and warrants the same respect that proceedings in the house itself demand. Even though you are not required to give evidence on oath, any deliberate misleading of the committee may be regarded as a contempt of Parliament. I have a series of questions that I need to ask you individually, perhaps starting on the left. Have you completed the "Details of Witness" form? You need to say it loudly so that Hansard can hear.

Mr Watters: Yes, I have completed that.

Mr Scott: Yes, I have.

The ACTING CHAIRMAN: Do you understand the notes at the bottom of the form?

Mr Watters: Yes, I do.

Mr Scott: Me too.

The ACTING CHAIRMAN: Yes, you need to speak into the microphone.

Mr Scott: Yes, me as well.

The ACTING CHAIRMAN: The point is, Patrick, that this is all for Hansard to record, and it has to be clearly audible. Did you receive and read and information for witnesses briefing sheet regarding giving evidence before parliamentary committees?

Mr Watters: Yes, I did.

Mr Scott: Yes, I did too.

The ACTING CHAIRMAN: Do you have any questions relating to your appearance before the committee today?

Mr Watters: No.

Mr Scott: Also, no questions.

The ACTING CHAIRMAN: I will just state also that we are in the preliminary stages of this inquiry - the information-gathering stage. Some of the questions that members will put to you may cover issues that are already dealt with in the written submissions that you have made. However, witnesses are asked to be patient as members would like the responses to be on the public record as the submissions have not been published at this time. We are also hoping to cover some of the concerns that have been raised in submissions by others. The committee has received your submission, and I ask now if you would like to make a statement relating to your submission.

Mr Scott: Yes, we would like to make a statement, if we may.

The ACTING CHAIRMAN: Please proceed.

Mr Scott: Mr Chairman, members of the committee, before answering your questions today, I would like to assist the committee by making a short statement outlining Magellan's position on the circumstances surrounding your inquiry. Magellan accepts that there has been a problem with the handling of Magellan's material here in Esperance. We treat this very seriously. That said, Magellan believes its product can be handled safely and in an environmentally appropriate manner. Any escape of our product into the outside environment is totally unacceptable. We maintain that the product has been transported and handled in accordance with the terms and conditions set upon us by the authority to mine that we have and our agreement with the port here. In our written submission, which we have delivered to you, we have gone through the points that we were asked to respond to, in particular, the form of product that we were permitted to transport through the port, the effect of moisture on the characteristics of the concentrate, the conditions under which the concentrate has been transported and handled, and the reasons that Magellan decided to put its concentrate through Esperance.

[9.10 am]

We were pleased that the committee was able to come and visit our mine yesterday, and we hope that the visit gave the committee an understanding of what we do and how we operate, particularly with regard to the serious issues of handling our product and the way we do it.

Magellan set before the committee yesterday examples of how we handle our environmental and health responsibilities at our site. We believe that this is something that we do in an appropriate manner, particularly with regard to the health of our workforce etc. Magellan is a young company and a relatively young operation. We believe that we have made, over time, significant improvements to the way that we run our operation. This is an ongoing process. We set standards for ourselves in our operation that are higher than the standards required by the legislative bodies here. Magellan takes all its responsibilities seriously, and we remain, as I said earlier, very concerned by the events here in Esperance. From the time that it became clear that a lead contamination problem had occurred here, we have sought to work with both the port authority and the various government departments. We have engaged a very reputable firm of environmental consultants to assist us and to assist the other parties doing the investigation - that is, Enesar - and we look really to develop the thing forward.

Finally, in this opening statement I would reiterate that we can move this product safely and in an environmental manner that is wholly acceptable. We just see that as something that we are going forward with. Thank you, Mr Chairman. My colleague Trevor Watters and I will be pleased to help provide whatever evidence you require.

The ACTING CHAIRMAN: Thank you. I will now proceed to the questions. We have a large number of questions, and some of our members will come in with additional questions as we go. Therefore, I would ask, because of the number of questions that we have, that you try to keep your answers as concise as possible so that we can get through as many as we can. I will also indicate that there may be some questions that we do not have time for. We will lay those questions on the table so that they will be incorporated in *Hansard*. We will send those questions to you and we ask that you respond within 14 days to the questions which we put to you and which we do not have time for today.

Firstly, we just want to get some background on Magellan Metals itself, so I will just ask you to provide the details of the ownership structure and any other mines owned that are owned and/or managed by the company.

Mr Scott: Magellan Metals is an Australian company. Basically, Magellan Metals has one principal asset, which is the Magellan lead mine that you visited yesterday. It has other exploration properties but no other operating mine. Magellan Metals 100 per cent owned by Ivernia Inc, a Canadian Toronto Stock Exchange listed company. Really, it is a very simple structure for a public company like that.

The ACTING CHAIRMAN: Does Ivernia own other mines other than Magellan Metals' mine?

Mr Scott: No, it does not.

The ACTING CHAIRMAN: So you are its sole source of income?

Mr Scott: Absolutely.

The ACTING CHAIRMAN: I guess that was my second question - is it the sole source of income - so I have covered that one. What experience does the senior management group have in mining, initially, and in lead mining in particular?

Mr Scott: We have got quite an experienced team. From an operating point of view, it is led by me. I am a mining engineer. I have never done anything else for, say, nearly 30 years now, I guess. In terms of different operations that I have been involved in, I was involved in lead mining up in the Northern Territory for a couple of years at the Woodcutters operation near Darwin, and also overseas in Iran. We have, as part of our company, Trevor, who will tell you about his experience himself in a second, but we also have Paul Cullen, the general manager, whom you met yesterday on site. He is a very experienced, particularly from working at Mt Isa, in lead and zinc processing, and so forth. We have, underneath that, the sort of range of professionals that you would expect to find running a mining operation and dealing with these products. There is an environmental superintendent, whom you met yesterday. We have ventilation officers and so forth. They are all really what you would require for a mining team. Trevor, you might talk about your experience.

Mr Watters: Yes, thank you, Pat. I was actually born in Broken Hill and spent most of my working life there. We lived there for 50 years. I am a metallurgist by profession. When I finished my time there, I was metallurgy manager for Pasminco, which was basically in charge of the metallurgical operations of both North Mine and the zinc mine, or CRA. I have had extensive experience in carbonate lead, flotation and preparation, as well as sulphide lead mineralogy and treatment. I had three years with the nickel industry in the goldfields before coming on to this project.

The ACTING CHAIRMAN: How long have you both been with Magellan?

Mr Watters: I have been with Magellan for eight years.

Mr Scott: And I have been working for Magellan for just about 12 months.

The ACTING CHAIRMAN: And Paul Cullen?

Mr Scott: Paul Cullen has been with us for all of four months now, I believe.

The ACTING CHAIRMAN: Could you please compare the lead product that is mined at Wiluna with that mined in other mines in both Australia and overseas?

Mr Scott: Yes. The product that we mine at Wiluna is a lead carbonate. It is a little different from most mines that produce a lead sulphide. In terms of its characteristics, one is coming from the top of an ore body where it is oxidised, whereas most mines are mining a sulphide product. That said, carbonate, as Trevor will be able to tell you, was mined extensively at Broken Hill up until about 10 years ago. It is not uncommon, but what is unusual is that Magellan is a pure lead mine. We do not actually produce a zinc concentrate or different metal concentrates; we produce one pure lead concentrate. It is a carbonate, which is not common but certainly not that rare either.

The ACTING CHAIRMAN: What particular characteristics does lead carbonate have that are different?

Mr Scott: Lead carbonate? Basically, it is more difficult to float in the process. We actually have to go through a process -

The ACTING CHAIRMAN: Sorry, not so much about the process but perhaps the effects, the actions of the lead itself, particularly with regard to human health.

Mr Scott: It is a bit more soluble than the sulphide product. Basically, when it is ingested, it is more likely that you will get lead into your system than with a sulphide product. What we have been told is that if you breathe the dust in of either a sulphide or a carbonate, basically you will get the lead from it in both cases.

The ACTING CHAIRMAN: You will understand that these early questions are largely just to get on the record matters that are already publicly available. Then we will get on to perhaps more difficult questions. Can you tell us where lead is mined, just briefly, in Australia and which ports it is exported from?

Mr Scott: I will give you a bit of an overview, if I can. Lead is certainly mined at Magellan. There is some lead mined, I believe, at the Golden Grove operation, which I suspect is exported through Geraldton. It certainly used to be. There is a lead-zinc mining operation on the Lennard Shelf area in Western Australia that goes out through Derby, I believe. There is lead mined in the Northern Territory - a lead-zinc operation at MacArthur River. There is lead mined over in Queensland at Mt Isa. There are various Century deposits, Trevor is telling me. There are a lot of lead-zinc mines over there. The largest lead mine in the world is Cannington's, a lead-silver mine - a BHP property in Queensland. There is Broken Hill, of course. Broken Hill either smelts its product or it puts it out through Port Pirie. There are quite a lot of mines, mainly lead-zinc, as I said. You will see them listed as multi-metal producers, but they are producing substantial quantities of lead.

[9.20 am]

The ACTING CHAIRMAN: I would like you to get on to medical problems, and I would like you to tell us what knowledge your company has of the medical complications of lead poisoning, I think relatively briefly. I know that there are lot of potential complications, but just tell us your company's understanding.

Mr Scott: Our company uses external people to advise us on things like that. We are not doctors; we are engineers or metallurgists. Yesterday, when you visited the mine, you will have seen and met with our occupational health nurse, and she showed you, amongst other things, the approach that we take to managing lead and the various levels at which we respond to lead in blood. She also showed you in some detail the approach that we give to our employees to make sure that they are fully informed in terms of the product they are dealing with and the likely effects at different times. Yes, we understand it well, but I am quite clearly not a doctor and would not go into a position of advising people on it.

Mr P. PAPALIA: From taking us around yesterday, you are obviously very aware of acceptable occupational levels of lead and any impact of lead on the workforce, but what about the impact of lead on the population other than the workforce, such as young children?

Mr Scott: We read the various reports as they become available, but we do rely on other people to advise us on these sorts of things. Yes, we are obviously aware of what is in the media and where it sits.

Dr G.G. JACOBS: Patrick, can you just outline the dust-monitoring program on site at the Magellan mine that we visited yesterday, for the record?

Mr Scott: I certainly can, but you will have to forgive me in as much as the actual specific details, which we showed you yesterday, I have not got here, so I will give it to you from memory, if I may. We have a large number of static dust-monitoring stations - 16 or 17.

Mr T.G. STEPHENS: You told us 16 yesterday.

Mr Scott: I am sure that is the right answer. We have a static dust-monitoring program at the mine, at various locations. We also have a high-volume dust-sampling facility there - I say "facility"; we have a unit that will do that, which is actually transportable, so we can move it to different locations. We have a ventilation officer whom we have employed only relatively recently - about three or four months ago - but who is totally engaged on carrying out monitoring the dust in and around the mine site. We also monitor soils at various locations around the mine, bearing in mind, of course, that our mine is a lead mine and there are high concentrations of lead in the soil there naturally. The ore body actually comes to surface, as we spoke about yesterday, and in some areas outcrops.

Mr M.P. WHITELEY: You mentioned that the biggest lead mine in the world was run by BHP. Do you know much about its transport chain and if it differs from yours, and how it does it?

Mr Scott: I do not have an enormous amount of detail on it, but I do know that they transport from the mine to Townsville. They have a ship-loading facility in Townsville where they take the ore out to other -

Mr M.P. WHITELEY: Do you know whether they use a kibble system, as you do, or do they use enclosed containers?

Mr Scott: Trevor probably knows.

Mr Watters: All I know about their system is that they did some overland transport to Port Pirie. I would have to check on this for you, but I do not believe they use a kibble system; I believe it is like a bulk carrier. However, I would have to confirm that for you.

Mr M.P. WHITELEY: How is it loaded onto the ships at the port?

Mr Scott: I know that there is a ship-loading facility at Townsville, but in terms of the detail of that, we would have to go away and get that information.

Mrs D.J. GUISE: Mr Scott and Mr Watters, can you confirm for us whether you ever visited any of those sites before your mine came on board? In terms of reaching your agreement with the Esperance port, and originally with the Geraldton port, did you first visit any of those other sites to see how the product was handled at the other end; in Queensland, for example, or elsewhere?

Mr Scott: Given Trevor's time with the company, I will pass this question over to Trevor.

Mrs D.J. GUISE: Thank you. That is fair enough.

Mr Scott: However, I can tell you that I have personally visited other ship-loading operations in various places.

Mr Watters: I have had a lot to do with Port Pirie over the years. I certainly did not make a point of going back to Port Pirie because of my close association with them over many years. I knew

what the systems were. For most of the life of the transport between Broken Hill and Port Pirie, it was shipped in uncovered wagons. A more recent addition, I believe, by Pasmenco, which was after my time there, was to put lids on those wagons. I also visited Geraldton a number of times. I did not actually see any lead loaded, but I saw how zinc and copper were loaded, and I was assured that lead was handled the same way. They had a separate bay in the shed for lead, and that is where our material was to go originally. We saw the kibble arrangements. In my experience with Western Mining at Leinster for a couple of years, we shipped kibble concentrates backwards and forwards, but that was nickel at that time. It was using Brambles in actually the same process.

Mrs D.J. GUISE: Further to that, did you sight the ship-loading and unloading facilities in those visits?

Mr Watters: In Port Pirie I did. All of the lead concentrate in those days was actually processed at Port Pirie, but the zinc concentrate, which contains up to two per cent lead, was loaded onto the wharves in stockpiles and then just reclaimed by a conveyor system onto ships for transport to either Tasmania or overseas.

The ACTING CHAIRMAN: Do you know if that is still the current system?

Mr Watters: I believe so.

The ACTING CHAIRMAN: Are you aware of any elevations of lead levels in any of the ports that are exporting lead?

Mr Watters: The Port Pirie instances are quite well documented. One of the complicating issues there is the large smelter that has been there since day one. They have done an enormous amount of work there. Once there was an issue to do with lead distribution around the environment and with the people, they did an enormous amount of work to bring that under control. I believe that at the moment it is quite well managed.

The ACTING CHAIRMAN: What do you mean by well managed? Are there still elevated lead levels in people within the towns that are exporting lead?

Mr Watters: In Port Pirie, I believe there are. There was some recent press on that. I do not have first-hand knowledge of that.

The ACTING CHAIRMAN: I have to say it surprises me a little, given that you both have extensive experience in lead mining. You are aware that there are elevated lead levels in those other communities. I am not aware of that knowledge being made available publicly during any of the application process. Would you like to comment on that?

Mr Scott: I think the key answer to that is that when the application was put in, it was put in basically on the assumption that what was being put forward was a safe and appropriate way to handle the product. From the documents that I have seen, in terms of the investigations and what Magellan as a company relied upon at that time, without hindsight, it certainly looked that what was being proposed here was very much the standard way of handling this sort of product within our industry.

The ACTING CHAIRMAN: I am a little surprised also about your lack of personal knowledge about the potential health or medical effects. Having starting this committee, it did not take us long to get onto the Internet and look at international research on the effects of lead poisoning. I do not know if you are aware of reports from America in 2004 suggesting a significant health effect in children and in pregnant women of levels as low as two micrograms per decilitre, which is below the internationally accepted level of 10 micrograms per decilitre. Are you aware of any of that research that has been done?

[9.30 am]

Mr Scott: Yes, we are aware. We subscribe to the sort of lead industry information systems that you would expect us to subscribe to. We basically operate to the standards that are set by the regulators. In fact, as I said earlier, we operate to a higher standard with regard to our employees and personnel who work at the mine. We are great believers that this a product that we can handle appropriately and safely. If regulations and things move on, we will change the way that we do things appropriately.

The ACTING CHAIRMAN: We will get on later to some of those things.

Mr T.K. WALDRON: I have just one follow-up question on that. Patrick, you mentioned that you are a young company. Did you base your standards on those other operations?

Mr Scott: To some extent. I think the key is that while we might be a young company, neither Trevor nor I would describe ourselves as young individuals. We have got a lot of experience. The company also - in saying this, I was not there at the time the applications were put in but I know - employed appropriate consultants to advise it as well, as did the Esperance Port Authority.

The ACTING CHAIRMAN: Half an hour has gone by, and there is a lot to go, so we will move on to the next section. We want to explore in some detail this issue of agglomeration. It was not a part of your original application for Geraldton, and, as we all know, you have approval to export lead carbonate in its current form from Geraldton. When that was changed to Esperance, in your letters of application you talked about changing to an agglomeration procedure to reduce dust levels. Can you talk to us about that? Why did you put that in and what happened to the agglomeration?

Mr Scott: Yes, I can certainly do that. It is dealt with in our written submission fairly fully. At the time that the submissions were made, it was certainly Magellan's intention to agglomerate the product, and we told both the Department of Environment and Conservation and the port authorities at both Geraldton and, subsequently, Esperance that we would be agglomerating the product and that it would be agglomerated to a certain sizing.

The ACTING CHAIRMAN: Can I ask for all mobile phones to be turned off.

Mr Scott: We do not resile from that. We certainly did make those representations. Subsequently, the mine started, and you have to remember that when you start a mine, before you have actually started to produce any product, you are working off pilot plant data, so there is very limited information as to exactly how something like a concentrate will perform. When they started the mine, they ran this agglomerator, which is just a screw conveyor, to load the kibbles. What they found was - I take you to the letter that is actually in our submission - that the agglomerator, one, was not particularly easy to operate, but, two, the effect of the agglomeration that was being done - because material was then put into a kibble and taken over the road system - was that the balls that were produced basically were shaken out, so it was a worthless process.

The ACTING CHAIRMAN: I just have to say that I wonder how you ever thought that you could temporarily convert something into an agglomerated, fluid-like ball and then expect it to get over that road without being shaken out in five minutes.

Mr Scott: I think the answer to that is that until they actually had the product from the mining operation proper, there was a view that the flocculants and other things that are used within the treatment plant, plus the moisture content of the thing, would actually hold together better than they did.

The ACTING CHAIRMAN: Why did you go to agglomeration in the first place? Did you have concerns about dust in its previous form?

Mr Watters: The whole idea of agglomeration developed only from an original strategy to feed the refinery. We needed to feed our furnaces with concentrate but also with reductants; that is, coke fines, fluxing agents such as sodium carbonate, and maybe some haematite fines. The best way to

do that, we thought at the time, was to use a screw feeder that would have actually had a water-cooled jacket on the head of it, and you poke that in the furnace and you get a blending of the products as they go in, and the agglomeration - and that is purely where that term came from - was going to be very useful in reducing the recirculation of dried fines around the bag-house circuit, which can go up to 15 or 20 per cent of the new feed coming into a plant. That was the idea of using a screw feeder, to blend these disparate products into the furnace. Once we decided that - hang on - we would need to do a lot more work on this refinery to finish the feasibility - we still had some technical difficulties - we then said, "Just a minute. This product, through a screw feeder, is coming together in these little loose agglomerates. This would be a good idea to help minimise dust." That is how the idea came about back on day one. It was not a conscious process decision stemming from flotation.

Mrs D.J. GUISE: Mr Scott and Mr Watters, in your submission you state that Magellan did represent that it was exporting the lead concentrate as moist agglomerates being approximately 10 millimetre balls or granules, and you have just advised us that you informed the Department of Environment and Conservation. Can we have a copy of that correspondence, please, because I do not believe I have it as part of your submission?

Mr P. PAPALIA: Yes, we do.

Mr T.G. STEPHENS: We do. It is there. We have it.

Mrs D.J. GUISE: We do? A letter to DEC advising it that you are going to -

Mr Scott: Yes.

Mrs D.J. GUISE: Okay. I want to check that that is in there. If that is the case, then clearly that process did not work. It became obvious that the agglomeration process was unsuccessful due to the product not holding together during transportation, and the decision was made to transport it in an unagglomerated form. Whom did you inform, and why, at that point?

Mr Scott: Basically, what occurred was that once it became obvious that the product was not worth agglomerating, if you like, we informed the port of Esperance. We have also made no secret about this at all. It is something that we have been quite open about. That is where we went.

Mr T.K. WALDRON: Were the Department of Environment and Conservation and the public informed officially at that stage that the nature had changed?

Mr Scott: I am not aware of whether we specifically informed the Department of Environment and Conservation or the public as such. Basically, from my reading of the documents, the actual licence that governs the mining operation talks about concentrate, which is what we were sending out anyway.

Mr T.K. WALDRON: My point is: did you not think that was warranted? There was not a concern that the public and the Department of Environment and Conservation should know about that change?

Mr Scott: I think we took the view that it was our obligation to advise the port authority here, and that beyond that we were operating within the terms of our licence. Frankly, the strong view was that the dust characteristics of this material were really about moisture, and agglomeration was, if you like, really almost a red herring.

Mr T.G. STEPHENS: You described the refinery process. Presumably, this is the process that was originally intended for the site of the mine itself.

Mr Scott: Yes, it was. Magellan was initially set up as a proposal, if you like. The initial concept was to refine lead at the mine and export lead as ingots.

Mr T.G. STEPHENS: Was it a serious intent of the company from the beginning to have a refinery process? In the original proposal that has come before us, the HHEMP, it says that the

project will utilise the sulfurisation, flotation and batch refining process to produce lead bullion from ore mined from open pits. Lead bullion has for me a concept of a product totally different from what we have now seen being transported. There would be a fear that what has been put before the government and the community of Western Australia has in fact changed dramatically, and perhaps there was never a real intent on the part of Magellan to be producing lead bullion?

[9.39 am]

Mr Scott: I think what we need to say is that, initially, in the early stages of conceiving this project, it was about lead bullion. Later, it became apparent that the mine could be made to work certainly without building a smelter immediately. The applications and all the discussion that was done with the various departments, with the public, and everything else, was about moving concentrate. Initially, it was about moving concentrate for a defined period of time and then switching over to building a refinery several years down the track. More recently, we have come to the conclusion that, actually, for both technical and other reasons, it just does not make sense to put a refinery up on that site.

The ACTING CHAIRMAN: The issue of agglomeration and subsequent conversion to ingots seems to have been made almost as an extra carrot, if you like, for getting approval. Do you believe that if you had not done that, if you had stuck to the original version of the application that you had to get it through the Geraldton port, which was as a lead carbonate product, not as an agglomerate, that you would still have been successful in getting a licence to export it through Esperance?

Mr Scott: I think the first thing to say is that with regard to transporting the material as a concentrate for a period of time and then switching over to lead ingots, our view is, and it always has been, that if we are going to move concentrate, it has got to be done safely. We are not talking about moving concentrate in an insecure manner for a number of years and then everything is fine and we are going to send out lead bullion. We would expect, and we certainly had the intent at the time, that our concentrate movement was done in a fashion that was wholly appropriate for the type of material that was being moved.

The ACTING CHAIRMAN: To answer the question, do you believe that if you had just applied for exactly the same sort of licence through Geraldton to be transferred to Esperance would have been successful?

Mr Scott: Personally, I suspect that we would have been successful.

The ACTING CHAIRMAN: You would have or would not have?

Mr Scott: Would have.

The ACTING CHAIRMAN: Would have been successful.

Mr Scott: Yes.

The ACTING CHAIRMAN: I have to say I suspect that that is the case as well, because later in these proceedings we will see that the facilities at Esperance, in your terms, are better than those in Geraldton where you had approval.

Mr Scott: That is absolutely right.

The ACTING CHAIRMAN: I want to get on to this issue of pelletisation of the material. I understand that that word does not appear in your application. Is that true?

Mr Scott: From my knowledge, no, it does not appear. From my knowledge, pelletisation does not appear and neither does pellets.

The ACTING CHAIRMAN: Where did that word come from?

Mr Scott: We really do not know. We suspect it came from the Department of Environment, but we are not sure.

The ACTING CHAIRMAN: Were you consulted about the use of the word pellet?

Mr Scott: I do not think so. I am saying that from the documents that I have. Trevor is telling me that he does not believe so either.

The ACTING CHAIRMAN: The information that we have been given was that certainly the Esperance Port Authority questioned it, that it was a word that was coined within the Department of Environment as part of that proceeding, and we accept that it was not your own application, nor was it the application from the Esperance Port Authority. I am concerned, though, that once that word was there, there seemed to be no action on your part to remove it, given that the use of the word pellet is fairly likely to be interpreted in a different way by the general population.

Mr Scott: I guess the only answer that we really have to that is that if pellet was an actual lead pellet, that was so far away from what we were conceiving to do that I just cannot see where and how that could have arisen.

Mr T.G. STEPHENS: In the submission from the Esperance Port Authority, we received the advice that the port authority had concerns about the use of the word pellet and that they approached Magellan about the phrase pelleted lead carbonate. They indicated within attachment 7, which I do not have access to, that Magellan replied to the authority that the product could be called either pelleted or granulated. Could you please make any comment on the submission we have received from the port authority?

Mr Scott: I am afraid I have not seen that submission, so obviously I am not really in a position to comment quickly other than that the word granulated is probably a better word than agglomerated or pelleted, really.

Mr T.G. STEPHENS: The product, in your view, could be accurately described as granulated?

Mr Scott: I think it could have been.

Mr T.G. STEPHENS: The reference to the word pelleted: would you say that the product could accurately be described as pelleted?

Mr Scott: I personally have difficulty with the word pelleted.

Mr T.G. STEPHENS: Magellan may or may not have advised the port authority that the word pelleted and granulated adequately described the product?

Mr Scott: As I said, I have not seen the correspondence.

Mr P. PAPALIA: There is an email from Trevor.

Mr T.G. STEPHENS: It is an email from Trevor, apparently. The date of the email is 11 November 2004, which has Trevor indicating -

The word pelleted is as good as any, granulated would also work, but your call.

Cheers, Trevor.

Mr Watters: That is correct because we did not see any distinction between the use of the word pelleted, the use of the word granulated, or the use of the word agglomerated. They all conjured up to us the same quality of particles.

Mr T.G. STEPHENS: What about bullion, is that the same?

Mr Watters: No, no, that is lead bricks.

Mr M.P. WHITELY: If I gave you three options, if I gave you pelleted, granulated and powdered, which one would you consider the most accurate?

Mr Scott: I would always call this product concentrate.

Mr M.P. WHITELY: But if I gave you those three options, which one is the most accurate?

Mr Scott: Probably granulated. The thing about powdered is that actually there is a fair level of moisture within this and powder to me means dry.

Mr M.P. WHITELEY: Wet powder. I will give you three options: pelleted, granulated and wet powder.

Mr Scott: Personally, I have difficulty with wet powder because that does not mean anything to me.

Dr G.G. JACOBS: Mr Scott, can you give us some mining or metallurgical definition of these terms, and why is that important? And tell us what you know about the differences in the generation of dust, because that is the issue we have here, with that form of product and that ability or the propensity to produce dust on handling?

Mr Scott: I think in terms of detailed definition we can go and research and come back to you.

Dr G.G. JACOBS: Could you tell us what a pellet is and what, in fact, granular is, and, in fact, give us a definition from a mining perspective.

Mr Scott: From a mining perspective, my view would be that pellets would be something that was dry and relatively single-sized. Agglomerate tends to mean that it is a more moist product, but not always. Granulated really means that it is in granular or grain - and when I mean grain, I mean mineral grain-type form. All these terms are really rather loose. They can all be brought to a defined conclusion by definition. In other words, you can say that it has got to be of a particular size and so forth, a particular moisture content, a particular strength. The real key to all of these products, if you like to call them products, is that whether they product dust or not depends upon the way they are handled. You can produce pellets, and if you move them lots of times, and if you transfer them lots of time, they will degrade, they will attrite and they will product dust. We have actually looked recently at briquetting our product. This produces a very solid little briquette. But if you start moving it and dropping it from conveyors and things, it breaks up and it produces dust too. There are lots of terms, but the real nub of the matter really comes down to what is the product in terms of how much moisture is in it and how much dust it will produce. That is where we see, very clearly, that that is where the issues really lie, from our view.

[9.49 am]

The ACTING CHAIRMAN: I think we are going to have to move on from this topic because we just have 25 minutes left. The licence approval from the minister required that a health, hygiene and environmental management program would be developed - and that was developed - and it would address the review of existing storage and ship-loading facilities prior to the facilities being used for lead concentrates. That is at the port of export. I ask: was that done?

Mr Scott: Yes, it was done in conjunction with the port here. In particular, Magellan relied upon some of the information that was provided to it. There is reference in the port's documentation, in terms of their environmental management plan, of detailed inspections done by Dames and Moore, which is a very eminent firm of consultants, and in the Riseborough report as well. I think if you read that through, people who are more expert than us have done significant work looking at these facilities.

The ACTING CHAIRMAN: We have received other submissions from local residents; two in particular talk about the issue of escape of dust from the export of nickel well before you started exporting lead. In particular, this one says -

10 yrs ago our house & yard have been covered in large amounts of iron ore & nickel dust with the foul smell of xanthate regularly since then.

He rang the Environmental Protection Authority. People came out and tested the material at his place and it was found to be high in lead and nickel. We have other reports that confirm difficulties

with the escape of dust from the port well prior to your export of lead. Were you aware of those difficulties that the port had prior to the export of lead through the port?

Mr Scott: I think the answer to that is that, at the time the licences were applied for and approved, we looked at the detail that was supplied to us. The systems here appeared to be appropriate. The consulting organisations certainly were saying that it was appropriate and a good facility. It looked, to us, better than Geraldton.

The ACTING CHAIRMAN: Sorry, Mr Scott, that was not my question. My question is: were you aware of problems with dust escaping to the port when you were making your application to export through that port?

Mr Scott: I think the better answer to that is: with our particular product, it was believed that this port could export our material without the escape of our dust.

The ACTING CHAIRMAN: Again, you have not answered the question. Were you aware of dust escaping - iron ore and nickel dust - from the port prior to the export of lead?

Mr Scott: Yes. I think the answer is that these ports -

The ACTING CHAIRMAN: I was waiting for that answer.

Mr Scott: I appreciate that.

The ACTING CHAIRMAN: I know that is the correct answer. I then ask: what did you do about that?

Mr Scott: We relied again on inspection and the characteristics that we believed were our product and the way that the port told us that it was going to handle the product that this could be done properly here.

The ACTING CHAIRMAN: I get back to the requirement by the minister. It requires that you had involvement in the inspection of the port facilities to ensure that lead dust cannot escape. You knew that there were prior problems. I presume that you sought some rectification of those problems and made some effort to try to work out what was the cause of those problems. Is that true?

Mr Scott: Yes. I think you can look at the Riseborough report that has been included in these submissions as a clear work-through of what was believed at the time to be the issues between ourselves and the port in terms of the environmental loading of our product.

The ACTING CHAIRMAN: What did you think was causing the problem with the port that was leading to iron ore and nickel dust escaping, and what changes did the port make to fix that problem so that the same would not happen with lead?

Mr Scott: I think, first of all, the iron ore does go out through a separate facility. We certainly had no information on that.

The ACTING CHAIRMAN: Sure. Nickel is the same, though; talk about the nickel.

Mr Scott: Nickel goes out through a common facility. Our view would be that the dust characteristics of the nickel would be different from the dust characteristics of our material. It is different material.

The ACTING CHAIRMAN: More or less likely to -

Mr Scott: That depends very much on the moisture content.

The ACTING CHAIRMAN: They both are required to have the same moisture content, as I understand it. Seven to nine per cent, is that the range?

Mr Scott: I do not know much about nickel, to be quite frank, in terms of nickel concentrate.

The ACTING CHAIRMAN: I can inform you that it is the same. Why did you think it was different if you do not know much about it?

Mr Scott: Because, whether they have the same moisture content or not, the moisture content and the way that this product dusts - our product, not anybody else's - if it has the right moisture in it, it is relatively dust-free.

The ACTING CHAIRMAN: The same applies to nickel.

Mr Scott: Again, I rely on your expertise.

The ACTING CHAIRMAN: I guess that is the point. Here you are exporting something that is far more dangerous than nickel, that has already got out into the environment with the facilities as they had them and yet it seems that you did not make much effort to either find out the characteristics of the nickel to see why it was going out, and to expect yours to be different. Why was that?

Mr Watters: Back when we first starting talking to the port we were most impressed with their systems and what was happening. There was some mention of escapes of iron ore dust in the past. The port informed us - basically, demonstrated - that they had resolved the iron ore dust issues. I believed that to be correct. Regarding incidences of any nickel dust escaping from the port, they said they were isolated events and they had an action plan in place to address all of those. But on top of that, their monitoring systems that Pat just referred to were going to demonstrate the efficacy of those various steps that they had in mind. Now, I do not have that history in front of me at the minute, but I am quite happy to take it on notice.

The ACTING CHAIRMAN: Sure. We would like whatever documents we can get.

Mr P. PAPALIA: The Environmental Protection Authority report on Magellan's proposal in September 2000 stated that the proponent, that is you, had agreed to participate in a joint sampling program to establish ambient air quality and marine sediment limits for the port. Did that happen?

Mr Scott: In Esperance?

Mr P. PAPALIA: Yes. Well, actually, initially, the documentation was for Geraldton, but then the entire application was transferred to Esperance, so I am assuming the same requirement applied to Esperance.

Mr Scott: I think we took it that the same requirement did apply and really proceeded on that basis. Magellan took the view, particularly after seeing the various expert consultants' reports, that the dust monitoring and marine sediment monitoring that was already in place and proposed and run by the port was appropriate. We basically, essentially, relied on their systems.

Mr P. PAPALIA: You did not do a new baseline sampling prior to the commencement of operations?

Mr Scott: I do not think we did a baseline sampling but, of course, that sampling would have been ongoing anyway.

Mr P. PAPALIA: The sampling that you accepted from the port authority, did it indicate there was nickel dust contamination in the town?

Mr Scott: To be frank, we would not have had a real interest in nickel at the time, but we will have seen whatever was there.

[10.00 am]

Mr P. PAPALIA: You were just accepting that the processes they had in place to detect dust emissions were acceptable for your new operation; you did not go and do a new ambient testing?

Mr Scott: No, but we did rely on external consultants' reports telling us that those sampling processes, procedures and things that they had in place were appropriate for our product.

Mr P. PAPALIA: I have a fundamental problem that I believe that you were aware that there were nickel dust emissions into the atmosphere and contamination in the town and that, regardless of that, you then went ahead with planning to use exactly the same process for loading lead, which, as you are aware, is far more toxic, without any real assessment of whether they had put in place better procedures or better equipment or changed the process, other than some consultants' report that you read.

Mr Scott: I think the better answer to that is probably that our product is different and we were confident with the information we had at the time that this was appropriate.

Mrs D.J. GUISE: Under the licensing agreement you are required to have a health, hygiene and environmental management program in place. The document that we have before us is dated August 2004, revised November 2004. This document deals with the port option review, things such as transport route and, of course, risk assessment in terms of emergency response. This document refers to Geraldton as being investigated, but Esperance as will be. I think this follows up the member for Peel's question: can you tell me if you have a current document that you are required to, and what the date of that document is; and, if you do not, why not?

Mr Scott: I have just been asking where various documents are. They are telling me that on tab five to the folder that we have provided there is the licence that fully picks up on Esperance.

Mrs D.J. GUISE: But do you have a current health, hygiene and environmental management program document that deals with Esperance as a fact, rather than what will be, which is how the current document is presented to us?

Mr Scott: In actual terms with Esperance written into the document in solid terms, no, but our view is that the principles implied certainly went from one document to the other.

Mrs D.J. GUISE: Has this document, as it currently sits, ever been made public, as is required?

Mr Watters: Yes, I believe so. I believe the HHEMP was made public as part of the consultative environmental review, and as such should be in all the libraries.

Dr G.G. JACOBS: Mr Scott, in the issue of exporting lead through the port of Esperance, there is no doubt that you did refer to the historic nickel dust gauge sample results in annual reports that have been submitted by the port for some time. Were you aware of some of the high results in those dust monitoring gauges for nickel? Also, were you aware that of the tanks that had been sampled historically, there were high levels in many of those tanks for nickel, in our rainwater tanks?

Mr Scott: Yes, I think the company was aware that there had been sampling of rainwater tanks and that there had been high levels of nickel in some of the tanks. My understanding is that some of those tanks had been washed out over time by the port authority, but, given the length of time that nickel was exported through the port and the various changes that would have been made over that time, it was really quite a difficult thing to determine as to whether that was something that was of real immediate concern or not.

The ACTING CHAIRMAN: Again, we are pressed for time. The member for Wanneroo has a series of three questions.

Mrs D.J. GUISE: Would you comment on the proposition that lead carbonate is a brittle substance that forms extremely fine particles which can be readily dissipated into the air and water and is prone to particle size degradation when handled?

Mr Scott: Yes. With lead carbonate, as in the concentrate that we are exporting, basically, again, it really very much depends upon the moisture content that is put with that carbonate as to how it behaves and how it disperses. At the correct moisture content, and also with the flocculants that I was referring to earlier, that we add at the mine as part of the process, it is possible to produce a concentrate that really is quite easy to handle. It may be worth saying that until very recently, the

feedback that we have been getting for the handling of our product here is that it was the preferred product, rather than the nickel that the port was handling.

Mrs D.J. GUISE: Would you be able to comment on the proposition that wildlife and stock are unable to differentiate between lead carbonate and calcium carbonate, which exists in the natural environment and is a source of calcium required by nearly all living species?

Mr Scott: I think there are toxicologists and things that will be able to provide you with much better detail than I can, but I do know, and I have read, that lead in the system will replace calcium.

Mrs D.J. GUISE: Would you be able to comment on the proposition that when consumed by birds the chemical composition of the lead carbonate alters and, once excreted, it has an increased water solubility as it decomposes to a lead oxide form?

Mr Scott: Again, that is chemically beyond me.

Mr T.K. WALDRON: Mr Scott, in closing your opening address you made the remark that you were confident that you can produce and move this substance safely. Can I ask you to explain how you can do that and why you did not do it that way from the beginning?

Mr Scott: To answer the last bit of the question first, we firmly believed when we set this up that what we proposed to do was appropriate and it was a correct way of moving this concentrate. Since we have had the issues that have occurred down here, we have taken the view that we would like to actually fully control the process of where our material might get any exposure to the environment. As such, what we are proposing to do is to actually export this concentrate in a lined container with a sealed liner and then a sealed container and then we would load that container on the minesite and actually inspect it, have an external agency inspect it, to make sure that it was totally free of any possible contamination and had been loaded appropriately. Basically, the material would remain in that liner inside that container until it arrived at the smelter where they would unload it and obviously process it.

Mr T.G. STEPHENS: The ore body that is loaded onto the ships: once it is on the ships it is your product; you retain ownership of it on the ships?

Mr Scott: Yes, we retain ownership until it actually arrives in China.

Mr T.G. STEPHENS: The ore body is in your hands, as the beneficial owners of it, from the point of production through to its delivery at the refinery.

[10.10 am]

Mr Scott: Certainly until its delivery at the port of discharge.

Mr T.G. STEPHENS: That is all of the ore body.

Mr Scott: I am a mining engineer. You cannot call it an ore body. It is a concentrate, but, beyond that, yes.

Dr G.G. JACOBS: Mr Scott, who does your testing for lead levels on your workforce? Can you tell us the laboratory? Can you also tell us what is the time frame for the results; that is, what is the turnaround time for those results and how long do they take to get back?

Mr Scott: I would like to come back to you on that. I do not have that information with me. It does not take very long. We get our results back in what - two weeks? We need to come back on that.

Dr G.G. JACOBS: Can you provide that for us?

Mr Scott: Yes, we can.

The ACTING CHAIRMAN: I would like to have that provided, but I noticed that somewhere in the records there was a dust sample sent and a result was back three days later. I guess we are making the point more for our next group that we will be talking to.

Mr Scott: There is a difference between the lead in blood, which I think Dr Jacobs was asking, and the dust sample.

The ACTING CHAIRMAN: Yes, I would really like to know about the lead in the dust monitors, because, as you know, there have been problems with time taken to test the lead dust collectors around Esperance. How long does it take to get your results back for your dust?

Mr Scott: We would have to get back to you.

Dr G.G. JACOBS: Could you be mindful that you also have the personal respiration pumps that are worn by your members, as we saw and had explained to us on site yesterday? How long do those results take to come back? In fact, can you submit some of the results to us for us to get an idea of those results and limits etc?

Mr Scott: We can certainly do that, but it will have to be obviously after.

The ACTING CHAIRMAN: Again, just for the record, I am fairly confident that this is what I read, but we will confirm that when we get your answers: I am fairly certain that your test results took only three days to come back, which is a fairly fast time. I want to talk about the dust itself. You may not be aware, but my understanding is that when the ore body is loaded onto the ship -

Mr Scott: The concentrate.

The ACTING CHAIRMAN: The concentrate. Sorry. When the lead concentrate is loaded onto the ship - am I allowed to call it a ship? - or the vessel, they stop work when there is obvious, visible dust present. In all your testing procedures that you do for lead, particularly in your obvious management procedures that we saw yesterday at the port, is it visible dust or invisible dust that you are largely concerned with?

Mr Scott: The answer to that is obviously both, but if you see visible dust you can be certain that there is invisible dust there too. The converse is not necessarily true.

The ACTING CHAIRMAN: I just want you to make that point to me very clearly because obviously that is the issue to do with loading. If there is no visible dust, it does not mean that there is no lead dust present, does it?

Mr Scott: That is certainly correct, but again, if there is no visible dust, you could be a lot more confident that there would be low levels of stuff that you could not see.

Mr P. PAPALIA: We have already established that you accepted the Esperance Port Authority's environmental management system, plan or program as being robust and suitable for monitoring the export of lead concentrate, yet in the port authority's dust gauge monitoring reporting procedure document it states that a dust monitoring method does not have a high degree of accuracy. In email correspondence between you and the port, that point is made again on 18 November 2004. It says that they are not sure that they are extremely accurate as they are said to perform poorly in windy conditions, which Esperance has; however, they give them an indication of whether they have any trends in increased dust deposition. How did you determine that that sort of accuracy of dust monitoring was suitable for monitoring toxic materials like lead?

Mr Scott: Again, I come back to external consultants, but we did rely on people with better expertise than ourselves. That said, that sort of dust monitoring does provide a trend and, if analysed properly, it will provide you with the sort of information that you need.

Mr P. PAPALIA: Did you ever consider consulting with the Department of Health for advice on better monitoring techniques?

Mr Watters: I do not recall going to the Department of Health in the particular case of Esperance, but basically, when we put our CER in front of the Department of Health in terms of Geraldton, they made a number of comments about the CER but there was no reference to the efficacy of dust monitoring in the Department of Health.

Dr G.G. JACOBS: Following on Dr Hames' question about ship loading, I have a port user who has - in fact, I am not sure that you are aware of this, but over the past 18 months, on good authority he suggests that if the wind blew back over the port amenities, buildings and car park, the feed conveyors were set back to 700 tonnes per hour, but if the wind blew away from the berth, the conveyor would be set at 1 100 tonnes per hour, with the increase of material residue dust. Are you aware of that operational matter? I will be asking the port authority about it later on today.

Mr Scott: Dr Jacobs, I am not aware of the details of the port operation like that.

Mr T.K. WALDRON: I know you spoke to the port authority at the start of the operation. Is that correct?

Mr Scott: Not me personally, but Magellan did, yes.

Mr T.K. WALDRON: How often since that time has the company inspected the Esperance port facilities?

Mr Scott: I personally went down and inspected them when I started to work for Magellan. We have frequently sent people down to observe our ships being loaded, so there is a reasonable interaction between our company and the port.

Mr T.G. STEPHENS: Mr Scott, the approval process through DEC took only six weeks from application to the change in the port's licence. Did your company or any of your officers seek support from, employ or subcontract this exercise of seeking approval through to any political lobbyist?

Mr Scott: Yes, I can answer that quite categorically: the answer is no.

Mr T.G. STEPHENS: Your company did not use any political lobbyist?

Mr Scott: No.

Dr G.G. JACOBS: Following on from that, I asked the Premier this in the Parliament: was there any issue about employing Mr Burke or Mr Grill in any of your dealings? Did you employ either of those men as a lobbyist or in any other role?

Mr Scott: We can answer that quite categorically: we did not.

The ACTING CHAIRMAN: We are just coming to the end of our time. I have a final question that I will put to you in a second, but I indicate prior to that that, as stated, we will go through questions that have either occurred to us since or that we did not have time to ask. We will put those to you in writing. They will be tabled so that they will be incorporated in *Hansard*, and we would ask that you answer those within 14 days and, similarly, provide any other material that you volunteered today to provide. My last question is: what responsibility does Magellan Metals take for the escape of lead concentrate from the Esperance port?

Mr Scott: Magellan, as I said at the beginning of my opening statement, is very concerned about the situation. We do believe that this stuff can be moved in the proper manner. In terms of responsibility, I think we really need to wait until we have seen everything that comes through.

The ACTING CHAIRMAN: Thank you, gentlemen, for your attendance. It may be that we will have further questions that will require us to call you before the committee again prior to finalising our report, but we will obviously let you know and make arrangements with you.

I have a final statement that I am required to make. Thank you for your evidence before the committee today. A transcript of this hearing will be forwarded to you for correction of minor errors. Please make those corrections and return the transcript within 10 days of receipt. If the transcript is not returned within that period, it will be deemed to be correct. Thank you, gentlemen.

Hearing concluded at 10.20 am

EDUCATION AND HEALTH STANDING COMMITTEE**QUESTIONS FOR HEARING
TUESDAY, 2 MAY 2007****MAGELLAN METALS PTY LTD**

1. Please provide details of the Magellan Metals ownership structure and any other mines owned and/or management by the company?
 2. Is the Wiluna mine site the sole source of income for the company?
 3. What experience do the senior management group have in mining? In lead mining?
 4. Please compare the lead product mined at the Wiluna mine with other mines in Australia and overseas.
 5. Is lead mined elsewhere in WA and Australia and from which ports is it exported?
 6. What is the difference between lead carbonate and other forms of lead?
 7. What knowledge does your company have of medical problems caused by lead poisoning?
 8. Series of questions re agglomeration:
 - original approval;
 - change to Esperance;
 - who used the term 'pelleted';
 - is Magellan of the view that it was required by the approval to produce agglomerate?;
 - why did agglomeration fail?;
 - what was the response from the Esperance Port?;
 - were DEC aware of change?;
 - give details of presence during DEC inspection;
 - give details of fluid content of lead concentrate for export.
 9. The licence approval from the Minister required that a Health, Hygiene and Environmental Management Program be developed that would:
 - (5.) Address the review of existing storage and shiploading facilities ... prior to the facilities being used for leads concentratesWas that done?
 10. Was the document relied on by Magellan to confirm the variation to the HHEMP made public, as was a Ministerial requirement of the HHEMP? (Attachment No. 5 to Magellan submission)
 11. How often were the Port facilities inspected by your company after export commenced?
 12. The 2004 Technical Report on the Magellan Project by F Sibbel for Invernia stated (at p. 29) that "*a fine grind*" of the ore was essential "*for full liberation of the lead carbonate*". Does
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this mean that dust would be a more significant problem in managing the Magellan lead carbonate?

13. Would you comment on the proposition that lead carbonate is a brittle substance that forms extremely fine particles which can readily be dissipated into the air and water and is prone to particle size degradation when handled?
 14. Would you comment on the proposition that wildlife and stock are unable to differentiate between lead carbonate and calcium carbonate, which exists in the natural environment and is a source of calcium required by nearly all living species?
 15. Would you comment on the proposition that when consumed by birds the chemical composition of the lead carbonate alters and once excreted it has an increased water solubility as it decomposes to a lead oxide form?
 16. The 2004 Technical Report referred to earlier refers to agglomeration and pelletisation of the product after its moisture content was reduced to less than 7.5%. (pp.30,41). It refers to granules of less than 10mm being produced for shipment based on test work completed by Jacmor Engineering, Nalco and Lakefield Orestest which confirmed the “design and reagent parameters for the agglomeration” (p.30).
 - What was the reagent used?
 - What did the testing find?
 - We have been told that the lead carbonate did not arrive at the Port as agglomerates but in the consistency of wet cement, and note you make a similar point in your submission. Would you describe the agglomeration process as unsuccessful?
 - What did you do as a result?
 - The Committee would like all documents related to these tests.
 17. I note the report’s reference to the ‘historically low treatment charges’ (p.45) for smelting lead in China - the purchaser of Magellan lead, and the permanent closure of smelters in North America and Australia (p.45). Why would the building of a refinery at Magellan have been economically sound in these circumstances?
 18. Do you think Magellan’s proposal to build a refinery in two years may have reduced the rigours with which the proposal to transport lead carbonate as an interim arrangement was assessed by relevant government agencies?
 19. What has caused the delay in establishing the refinery - which was originally proposed to be operational by early 2006 (p.41)? I note from your submissions that Magellan has now decided not to proceed with the refinery, on the basis it was not feasible. However wasn’t this evident at in September 2004 when the technical report was produced?
 20. You aware that the Magellan operation was described by the Ivernia CEO, Mr De’ath, as “*unique without model anywhere in the world to draw parallels.*”? What does that mean?
 21. Did this affect your management of the environmental risks of the project? Should it?
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22. In the same broadcast Mr De'ath referred to the possibility of moving product in double sealed containers loaded onto ships so there would be no re-handling of the product off the mine site. Why was this process not adopted in the first instance?
 23. In its submissions Magellan accepts that there is a problem at the Port in the handling of its product - but also states that it has complied with all the conditions which have been imposed. This indicates that it was these conditions which created the problem. Is that a correct interpretation of Magellan's view? Why were these conditions inadequate, in Magellan's view, to prevent the lead pollution at Esperance?
 24. Were you aware that the Esperance Port Authority had a history of failing to contain iron and nickel dust on site prior to the export of lead?
 25. The approval process through DEC took only 6 weeks from application to the change in the Port's license. Did your company, or any of your members seek support from, employ or subcontract Mr Brian Burke or Mr Grill? Any other political lobbyist?
 26. What responsibility does Magellan Metals take for the escape of concentrate from the Esperance Port?
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