

# **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 FOUR**

##### **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**

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**Hearing commenced at 2.20 pm****PEARCE, MR BRIAN NORMAN****Councillor, Shire of Esperance, examined:**

**The ACTING CHAIRMAN:** The 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 contempt of Parliament. Have you completed the "Details of Witness" form?

**Mr Pearce:** Yes.

**The ACTING CHAIRMAN:** Do you understand the notes attached to it?

**Mr Pearce:** Yes.

**The ACTING CHAIRMAN:** Did you receive and read an information for witnesses briefing sheet regarding giving evidence before parliamentary committees?

**Mr Pearce:** Yes, I did.

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

**Mr Pearce:** No.

**The ACTING CHAIRMAN:** Please state the capacity in which you appear before the committee.

**Mr Pearce:** I am representing the Recherche Advisory Group, and I am a member of that committee, nominated by the shire.

**The ACTING CHAIRMAN:** And you are also a councillor?

**Mr Pearce:** Yes, of the Shire of Esperance.

**The ACTING CHAIRMAN:** Thank you very much for that. We may refer to some of the points made in your submission that we would like to put on the public record. Thank you for coming to do a presentation for us today. It is a bit intimidating in some ways to be up here on the floor, but I can assure you that you are very welcome and we hope to make this a relaxing experience for you. We have received your submission, as you know. Could you begin by speaking to that, and describing your group?

**Mr Pearce:** Thank you very much, Mr Chairman, ladies and gentlemen, and members of the committee. The Recherche Advisory Group, or RAG, was established in 1998 following the revelation that there was almost no scientific data available on the marine habitat on the Recherche Archipelago. The ultimate aim of RAG is to develop a community-driven management plan that can be used to guide the future use and development of the archipelago. The membership consists of members from environment; local government; recreation and tourism; business, including fishing; community, including indigenous groups; and education. Our aims are to encourage sustainability in the management and use of the Recherche Archipelago by fostering scientific research, raising awareness through education, and involving the community in the development of a management plan to maintain the pristine environment of the Recherche Archipelago because of its rich bounty and unparalleled beauty that attracts tourists from all over the world. Esperance, as a major regional centre, provides economic and social services to the far-reaching community

**The ACTING CHAIRMAN:** Would you like to make an opening submission, or is that what we have just heard?

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**Mr Pearce:** One thing I would like to comment on is that we have no responsibility to the conservation arm of the Department of Environment and Conservation. Our main concern is to the environment arm, even though the two are joined as one. The conservation arm of the Department of Environment and Conservation has always been supportive and done the right thing by the archipelago and the area in general. However, we have a problem with the environment arm of the department, and its lack of attention to this problem. In particular, as the president of the shire made reference to earlier, some 18 months ago, we were promised an environmental officer for the shire who could look after the information and the requirements of this town with regard to the amount of minerals etc going through the port. We demand that something be done immediately so that a person is on hand and does not come down here wearing the wrong clothes so that he cannot observe what is going on.

I would like to read from a file note that you have - a chronology report from the shire - called item 41. It is a file note from the environmental officer, Troy Doncon. On Sunday 11 March, 2007 the shire environmental health officer, Reza Rassard, and the environmental health assistant, Troy Doncon, attended the Esperance Port Authority to accompany the environment officer, land and water quality branch, Grant Hymus, for the purpose of observing the heavy metal ore concentrate unloading procedure. The Esperance Port Authority CEO, Colin Stewart, was present with two other senior port officers. The rail carts containing the mineral ore concentrate are large square bins constructed of steel, with an open top. The opening is covered with a synthetic canvass that forms a seal on two edges of that container. It is only on two edges, so two are left exposed. The bins are lifted off the rail cart by a heavy machine and lowered to allow a worker to unroll the canvass covering. The procedure occurs on a concrete surface and in the open air. Some dust is trapped in the canvass covering as it is rolled up to open up the bin top. A visible amount of dust collects on the concrete surface - see photograph Esperance port 003, which I do not have. A water wash-down procedure collects this dust and washes it into a sump pit. The sump has a series of weirs to allow the contamination and subsequent collection of the mineral ore concentrated sediment. The water is transferred to a secondary sump and is finally dumped into the harbour as described by a port authority officer. This water has been in direct contact with both the nickel and lead minerals ore that is handled at the train unloading carrier. The bin is tilted to an upright position while situated above the hopper - this is in the shed - and under the dust extraction hood. The machine is then reversed out of the hopper shed. An empty bin was observed to billow a substantial volume of dust into the open air once outside the shed. The bin is lowered to allow the worker to roll the canvass cover over the top of the bin. Ore concentrate dust is observed to be generated by unrolling the canvass from ore material trapped within the rolled canvass. The emptied and covered bin is then placed upon the rail carriage. Ore concentrate is visible on the edges and ledges of the bin structure. Upon the bin placement onto the rail carriage, airborne dust is generated and is readily visible. The lead mineral concentrate is transferred from the hopper to a storage shed by a series of conveyor belts. This storage shed has a number of holes in the outer walls in the corrugated iron sheet. The stored lead concentrate is subsequently transferred to the awaiting ship via an enclosed conveyance system. The conveyor belt enclosure covering is physically damaged in a number of areas, and photographs were taken of that - see Esperance port 033, 0334 and 035. This is one of the concerns we have; that is, that the concentrated lead and nickel are washed into the port from the storeroom.

[2.30 pm]

There is ample evidence over the past four to five years that there has been continuous contamination of the port with regard to the water. We have documentation in which the guidelines for nickel are 21:52, yet the port has 660:5 900 milligrams per kilogram. With regard to lead, the guidelines are 50:220, yet the port testing in the sediment was 3 600:29 000 milligrams per kilogram, or 132 times the level in the sediment compared with what is acceptable.

We have a responsibility as a group to look after the environment with regard to the water of the archipelago to keep the pristine requirement that is there. This includes the water right up to the

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berths at the wharf, because that is part of the archipelago. I think I might leave it there. There are questions about how to support the operation for procedural skip spills; how often do these occur; how are these spills cleaned up, including emptying of the wash-down sump and returning the [inaudible] to the mine; and does the port deny that spillage is washed into the sea? There have been so many rumours. I run my son's ice-cream van at Twilight Beach, which is one of the main beaches that people come to. In December last year, a person came to me and told me that there had been a major spill at the port, and it had gone into the harbour. That was lead. I asked the person if I could use their name, which they refused, because of their position. That was generally accepted. When the birds started dying in December, it appears that it took until March for the Department of Environment and Conservation and the other people who did the testing to find out whether the lead had been responsible. It was not until the first or second week of March that this was confirmed. To me, it seems a long time.

One of the other queries I have is was there any testing for arsenic, because arsenic is notorious for being in lead concentrate. In particular, from the information I have from miners who worked in the Wiluna area in the early days of mining up there, a lot of people suffered from boils and carbuncles because of the amount of arsenic in the minerals that were being moved out of that area. This is one of the things that I do not think has been addressed. I cannot remember anyone saying that the birds or any other things have been tested for arsenic. If arsenic is part of the nickel concentrate that is going through this area, and there is a spillage, is arsenic in the nickel and the lead that is coming through the port? This is one thing that we need to be looking at, because arsenic is a major problem in health. A young man from here who is doing his PhD is looking into the health risks in relation to nickel and the by-products and other products that can be found in the nickel concentrate. Thank you, Mr Chairman

**The ACTING CHAIRMAN:** Thank you very much. That was excellent. I have been passing along the pictures of the shed that you referred to.

**Mr Pearce:** I think you were given a copy of the report with our attachment.

**The ACTING CHAIRMAN:** Yes.

**Mr Pearce:** One thing that is of concern is the second paragraph: during the inspection, the Esperance Port Authority was found to be compliant with all conditions of its licence issued under the Environmental Protection Act 1986, except for condition G2, which is being handled by a separate correspondence. It goes on to explain that. I think you have a copy of all that.

**The ACTING CHAIRMAN:** Yes, and we have raised the issue about that inspection and that report.

**Mrs D.J. GUISE:** Mr Pearce, I am interested in the area where the rail comes in with the covered kibbles and then goes to the hopper. You have referred to that in light of that letter - I think it was item 41 from the council. Given your knowledge of that documentation, and obviously of what happens at the port, do you know for how long the uncovered kibbles are left in that unloading area once they have offloaded the lead carbonate to the hopper? I am interested to know for how long they are there once they have been uncovered in the first instance to go to the hopper, and then as they come back to the railcar.

**Mr Pearce:** Unfortunately, I am not privy to that information. I would say that it would be a short period. One of the things that concerns me greatly is that if it is coming down in a powder form and not a pelletised form, as we understood the licence required, and if these covers are going from side to side rather than from end to end - I am not sure exactly how they go - they would cause a flapping in the transport, which in turn would cause dust to be generated all the way through.

**Mrs D.J. GUISE:** Thank you. We were able to see those yesterday

**The ACTING CHAIRMAN:** Thank you. As we have just heard in terms of the issue of arsenic, the lead concentrate has very little arsenic; it has only trace recordings of arsenic. However, that is

not to say that it could not be involved in the nickel. We were not aware that that was a possibility, so we will check with the Department of Health to see whether that is possible.

**Mr Pearce:** I understand that at the Ravensthorpe nickel project, which is operated by BHP Billiton, there is one area of nickel there that is very highly concentrated with arsenic, and they are not going to mine that.

**The ACTING CHAIRMAN:** Thank you for that. This was the technical report on the Magellan project by F and A Sibbel in September 2004. I gather one of the features of this particular lead mine is that it is particularly low in arsenic compared with other lead mines throughout the world. However, that does not mean it could not be an issue with nickel. As I have said, we will check that with the Department of Health.

**Dr G.G. JACOBS:** Thank you, Brian, for coming here today. In your opening remarks you talked about involving the community in the development of a management plan to maintain our pristine environment. Where are you up to in the development of a management plan for Recherche Archipelago and the bay?

**Mr Pearce:** Thank you, Dr Jacobs. Some of the marine experts from the University of Western Australia have been down here to do intensive research into the archipelago and what it has to offer. It is one of the most pristine areas in the world, and we want to keep it that way. One of the things we need to do is to make sure that we are getting no pollution into our water in the harbour so that it generates into the archipelago. One of the things that concerns me is that we were advised not to eat fish caught one kilometre from the loading facility at the port. I have never seen a fish that stops one kilometre from the jetty! Perhaps there are signs down there saying, "Please don't go any further; you are within one kilometre"! The report came back that they had found only one fish that was contaminated. The questions we have been asked to address to you are: what species of fish have been analysed; have bottom-feeding fish been a focus; will the study be continuing on the assessed bioaccumulation; and were volunteers used in the collection of fish samples, and, if so, what protocols for catching the fish were given; what qualified marine biologists were consulted for advice on which species to collect; is it our advice that gill or purseine nets should have been used to capture ethnic species close to No 2 berth and the sump overflow?

**The ACTING CHAIRMAN:** You have put to us a series of questions. Of course it is not our role to respond to questions that people put. Our role is to question departments and authorities and so on. However, we will, and have, made use of the questions that you have put to us to ask those of the relevant people who made those decisions, so thank you for those questions, and we are making use of them. I was fishing the last time I was here, just a couple of months ago, but hopefully my lead levels are okay!

**Dr G.G. JACOBS:** On the issue of the development of the management plan, RAG has been established since 1998, nearly nine years ago. I have been hearing about the development of a management plan, but it has not actually come to any fruition. I am wondering whether, if you had had a clear management plan, you might now have been in a position to be more intimately involved with this incident of pollution, and perhaps even prevention.

[2.40 pm]

**Mr Pearce:** Well, at the present time I do not have anything like that, but John Fothergill I understand is in the audience here. I will make inquiries at our next meeting so that we can put in another submission attaching any management plan that we have, and what we believe needs to be done about the archipelago.

**The ACTING CHAIRMAN:** Thank you, Brian. For the benefit of the people here, you will have noticed that sheets have been placed on the chairs to tell people that we have extended the submission period to 25 May. If anyone wants to make further submissions prior to that date, feel free to do so.

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**Mr T.K. WALDRON:** Mr Pearce, you talked earlier about dust on the edge of the kibble. Are you talking about before it goes into the hopper, or after it comes out? Is there still residue there?

**Mr Pearce:** It is after.

**Mr T.K. WALDRON:** Are you saying the residue is still there? We were told today that they do not wash down the kibbles; therefore, when they are transported back, that dust comes off.

**Mr Pearce:** Well, the report is put in by the shire environmental officers. The machine is then reversed out of the hopper shed. The emptied bin was observed to billow a substantial volume of dust into the open air once outside the shed. It goes on to talk about the cover. The concentrate observed was generated by rolling the canvass cover back. The emptied and covered bin is then replaced with a rail carriage. Ore concentrate is visible on the edges and ledges of the bin structure. That is after it has been replaced back onto the rail truck.

**Mr T.K. WALDRON:** And then that rail train goes out of town?

**Mr Pearce:** That is right

**The ACTING CHAIRMAN:** I want to get back to the issue of how you expected the lead to be pelletised. To the best of our understanding, the use of the word "pelletised" was not advertised by the department, the mining company or the port authority. Where did you get the concept of the word pelletised, and when would you have gotten that concept?

**Mr Pearce:** In speaking with staff members of the port - they were people who went to Wiluna to inspect it, with senior staff from the port, I understand - their recommendation was do not touch it. They were of the understanding that the lead was to be pelletised. The first train load that arrived down had been pelletised, and it had broken down into a powder form again because the process had not worked properly and there was possibly not enough moisture in it. I understand from the staff members that with the second load that came down, alterations had been made to the procedure, and it came down as a glug and was unable to be easily handled. The process from there on was that it was just left as a powder form

**The ACTING CHAIRMAN:** When did you first know about the change from the so-called pelletised form?

**Mr Pearce:** Only in December last year.

**The ACTING CHAIRMAN:** When you use the word pelletised, what do mean by that word?

**Mr Pearce:** Well, I would say in a ball form that would not produce any dust into the atmosphere or into the community at large, so that it was contained within itself and would be a safe product to transport.

**The ACTING CHAIRMAN:** You were not expecting a hard ball, lead pellet like a shotgun pellet, for example?

**Mr Pearce:** No. I was thinking it would be contained within a structure that would have a coating, more or less, to hold it together while it was being transported

**The ACTING CHAIRMAN:** The company used the word "agglomerate" for that, even though it was reported as being pelletised. I was saying that when I use the word pelletised, I think of a small, hard substance. However, the company used the word differently. In fact, the dictionary describes pelletised as any small, round substance like a wax pellet, for example. Can you tell us when you first knew that lead was going to be exported through the Esperance port?

**Mr Pearce:** To be perfectly honest, I think the shire president made reference to it being in the local paper - a headline in the local paper. However, we do not always buy the Tuesday paper, and sometimes we miss getting the Thursday paper, too, so, honestly, I did not realise that lead was going through the port until we started to have problems with birds dying, and then I was advised that we had had this spill, so it would have been December last year

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**The ACTING CHAIRMAN:** So it would have been seven or eight months after they began shipping it?

**Mr Pearce:** Yes. I have spoken to a lot of people who did not know that it was going through, even though people say it was advertised in the local paper, and there was an open day at the port, because we do not necessarily read every report that is in the paper, and we do not always get the local paper. Unfortunately, I wish I had done that now.

**The ACTING CHAIRMAN:** Yes, I can understand that.

**Mr P. PAPALIA:** It may be worth reiterating, Brian, that the majority of your questions were put to Magellan, and particularly to the port authority. The answers will be available in Hansard. Whether or not you were here when those questions were put -

**Mr Pearce:** No, I was not. I was here for part of Colin Stewart's presentation.

**Mr P. PAPALIA:** The answers are on the public record.

**Dr G.G. JACOBS:** Brian, you mentioned the lack of - and rightly so - formal studies that have been done on the issue of nickel and its effects on the human body. You mentioned a PhD student who is doing some work on this. Could you provide some details of that person, because we might want to talk to him about some of these issues?

**Mr Pearce:** Do you want his name?

**Dr G.G. JACOBS:** Is it in order to be given the name of the gentleman who is doing the PhD on the effects of nickel?

**The ACTING CHAIRMAN:** I do not see why not. It depends on whether that person wants his name to be given to the committee.

**Mr Pearce:** I will provide that to Dr Jacobs privately, and he can bring it to your committee if he wishes.

**The ACTING CHAIRMAN:** I think we should ask the person first.

**Mr Pearce:** Yes. I have some e-mail addresses on the effects of nickel on health throughout the world. These are quite comprehensive on what is going on. I remember one company in one of the European countries that has quite intensive information on the effects of nickel on people.

**The ACTING CHAIRMAN:** There is also information on various websites - I have a file here somewhere - about the effects of nickel. Obviously the effects of nickel are nowhere near those of lead in terms of severity rating, but it is still of concern that those levels are so high. The issue now is where to from here. The mining company is obviously going to be talking about what it can do instead. As it turns out, this mine is the only mine of this Canadian company, and its sole source of income, which has now obviously been stopped, so it will be looking for alternatives as to what to do with the lead ore. There has been talk about putting it in sealed containers. The impression I get is that the people of Esperance have been turned off lead for ever. I would like to hear from you, as a member of the public, as to your view on lead exports through the Port of Esperance. If the company were to come up with an alternative, sealed system from woe to go, do you think the community of Esperance would wear that?

**Mr Pearce:** One of the things that was raised at the public meeting we had here, where there was quite a large number of people, is that I believe a motion was put forward, and that had to be counted twice, to get the decision that they were against lead going through the port. I think the community at large is split 50-50 about whether lead should go through here, so long as it is in a sealed container, and no contamination can get out into the community. I think we are fortunate in lots of ways, yet unfortunate in others, that it took the bird deaths in Esperance to bring forward that there is a problem. We are fortunate that those birds died in one way, yet it is sad in another, because they gave us a warning, when we were not getting a warning from the people who had a

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responsibility to advise the public that they were in danger. I believe the port and the Department of Environment and Conservation both neglected their job, and they have something to answer for

**The ACTING CHAIRMAN:** Thank you. There being no further questions, I thank you for coming. A transcript of this hearing will be forwarded to you for correction of minor errors. Please make these corrections and return the transcript within 10 days of receipt. If the transcript is not returned within this period, it will be deemed to be correct. Thank you very much again for your attendance.

**Hearing concluded at 2.52 pm**

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