

EDUCATION AND HEALTH STANDING COMMITTEE

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

TRANSCRIPT OF EVIDENCE TAKEN AT PERTH MONDAY, 30 APRIL 2007

SESSION TWO

Members

Dr K.D. Hames (Acting Chairman)

Mrs D.J. Guise

Dr G.G. Jacobs

Mr P. Papalia

Mr T.G. Stephens

Mr T.K. Waldron

Mr M.P. Whitely

Hearing commenced at 11.30 am

SKITMORE, MR PETER

A/Manager Environmental Regulation, Department of Environment and Conservation, examined:

ATKINS, MR ROBERT PHILIP

Director Environmental Management, Department of Environment and Conservation, examined:

TAYLOR, MR KIMBERLEY JAMES

A/Deputy Director General, Environment, Department of Environment and Conservation, examined:

McNAMARA, MR KEIRAN JAMES

Director General, Department of Environment and Conservation, examined:

MELL, MR DAVID

Manager Nature Protection Branch, Department of Environment and Conservation, examined:

The ACTING CHAIRMAN: We will get started, ladies and gentlemen. I am required to read to you a standard pro forma before we start. This committee is a proceeding of Parliament and warrants the same respect that the 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 need to ask these questions, starting from the left with you, Peter, and then working through just to make it easier for the Hansard reporter, as Hansard needs to record this. I have a question that each of you needs to answer. It goes a bit silly, I guess, because you need to say yes in turn, but that is the way this works. Have you completed the "Details of Witness" form?

Mr Skitmore: Yes, I have.

Mr Atkins: Yes, I have.

Mr Taylor: Yes, I have.

Mr McNamara: Yes.

Mr Mell: Yes.

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

Mr Skitmore: Yes.

Mr Atkins: Yes, I have.

Mr Taylor: Yes.

Mr McNamara: Yes.

Mr Mell: Yes.

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

Mr Skitmore: None.

Mr Atkins: No.

Mr Taylor: No.

Mr McNamara: No.

Mr Mell: No.

The ACTING CHAIRMAN: I need you to state individually the capacity in which you appear before the committee.

Mr Skitmore: Manager of Industry Regulation Branch.

Mr Atkins: Director of Environmental Management Division.

Mr Taylor: Acting Deputy Director General of Environment.

Mr McNamara: Director General, Department of Environment and Conservation.

Mr Mell: Manager, Nature Protection Branch.

The ACTING CHAIRMAN: I need to advise you that we are in the preliminary stage of this inquiry, the information-gathering stage. Some of the questions members will put to the witnesses may cover issues that are already dealt with in the written submission that you have given to us. However, witnesses are asked to be patient, as members would like the responses to be on the public record and the submissions have not been published at this time. We are also hoping to cover some concerns raised in other people's submissions that have been given us.

The committee has received your submission and I ask first whether you want to speak to that. I say at the start that time is of the essence. We have limited time in which to go through all the departments. I say also that where we are unable to ask questions that we have listed before us, they will be tabled before the committee and printed in *Hansard*, so those questions that we do not have time to ask will become a public record, and we may well ask you to come back at a later stage of the inquiry if we have further questions. So, Keiran, I will hand over to you.

Mr McNamara: Thank you, Mr Chairman. I would like to make some opening remarks. I want to begin by saying that the department obviously regards what has happened at Esperance as very serious. We have put significant effort into responding to the issue and we are committed to keeping the community informed. We have done this through media statements, interviews and responses to reporters' questions, as well as fact sheets and placing updates in *The Esperance Express*. We will provide all that material to the committee following this hearing. We have also attended the public forum on 26 March and the public information day on 14 April, both in Esperance; set up a 1800 information line; and advertised an email address for people to contact us.

I would like to outline DEC's role, the progress in our investigations in Esperance, and some preliminary recommendations. Further detail on each of these points is in our written submission. I will begin by saying that the onus is on those licensed to work with hazardous materials, such as lead carbonate, to do so in accordance with their licence and the Environmental Protection Act. However, the department also has a responsibility to oversee that this is done and we recognise that we have not done this adequately in this case. In general terms, the department's functions under the Environmental Protection Act are to assess and decide whether or not to grant licences and works approvals; to set environmental conditions to prevent, control, abate or mitigate pollution; to carry out inspections and monitor compliance; and, as required, to take enforcement action. We currently regulate about 2 500 premises across Western Australia. Our industry regulation program has around 75 staff, covering both professional and administration positions. The industry regulation program is funded from net appropriated fees, licences, works approvals and

registrations. These fees vary widely, but the annual licence fee for the Esperance Port Authority is currently \$1 125. We are reviewing our regulation of the Esperance Port Authority and Magellan Metals for environmental approvals. While these rules are not yet complete, we have identified that there were inadequacies in our regulation in a number of areas, including our inspection frequency and effectiveness, the licence conditions for monitoring and our responses to monitoring reports. The department assesses the environmental risk posed by different premises to determine how often the premises should be inspected. The nature of the loading and unloading systems at Esperance port contributed to it being assessed as a medium-risk premises, and it was scheduled for compliance inspections every three years. The rail transport of lead carbonate to the port began in April 2005 and the first shipment was loaded in July of that year. Formal licence inspections of the port were conducted in May 2005 and February of this year.

The Environmental Protection Act places significant obligations on those dealing with potentially polluting materials. These include requirements for occupiers of prescribed premises to hold a licence; to seek works approvals and/or licence amendments before carrying out any work or altering the method of operation or altering the type of materials used; to comply with licence conditions; to notify the department as soon as practical of the discharge of any waste it has or is likely to cause pollution; and the act makes it an offence to cause pollution or allow it to be caused.

[11.40 am]

These obligations are set on individuals and companies to prevent pollution. The department's regulatory capacity is dependent to a degree on licensees acting responsibly and abiding by these obligations. While the department's investigations are still continuing, based on information we have gained to date, we consider the pollution was clearly avoidable if DEC had been made aware of the dust issues that were being experienced with the material, particularly during loading. The port authority also has not adequately carried out or reported on its monitoring. The department is investigating whether offences have occurred under the act, and will take appropriate action if possible offences have been found to have occurred.

Turning to the bird deaths, the mass bird deaths in Esperance last December sparked an investigation by the department, of course. While the focus now is very much on lead, initially there was no indication of what killed the birds. It took time to test for and rule out what seemed to be the most likely causes, such as bacterial or viral infection. When chemical analysis was carried out for pesticides and heavy metals, there was no reference point for the levels found and we had to collect and test a controlled group of birds. Around the same time, the Esperance Port Authority's annual report to DEC for 2005-06, which was sent to the department on 31 January this year, showed dust monitoring results for lead that were well above the historic levels. A wide range of samples have been taken to find out how the birds that died came in contact with lead, and the results of this indicative testing have been released in the public interest. Test results have also been reported to the Department of Health, and we have liaised closely with the Shire of Esperance and the Esperance Port Authority. While the majority of the samples tested are below trigger levels for further action, the lead has entered both the town and the port's marine basin. A more systematic sampling program is underway and a health and ecological risk assessment will be carried out jointly by the department and the Department of Health. I have also announced that DEC will commission an independent review of the department's audit and inspection processes for the Esperance port to identify where improvements are needed. While the department is still collecting evidence - and I do not wish to prejudge the outcome in relation to the Esperance Port Authority, Magellan Metals or, of course, this inquiry - the department's written submission makes 14 preliminary recommendations that address strengthening DEC's regulatory program and procedural improvements, staff training and improved resourcing, as well as recommendations that DEC should reinforce to licensees their obligations to report potential breaches of conditions and that port authorities should be required to prepare and implement environmental management plans

to ensure that all activities within their area do not cause pollution. The department might wish to revise or add to these preliminary recommendations during the course of the inquiry.

In conclusion, we have provided a detailed written submission. We are, of course, happy to continue to assist the inquiry with further information as required. I want to reiterate that the onus under the law is on those licensed to mine, transport, store and ship lead to do so without causing pollution. However, the department is concerned at the deficiencies that have been revealed in our own procedures, and we are committed to putting in place the measures required to fix them. Thank you.

The ACTING CHAIRMAN: As stated, we have a large number of questions to ask. It will not be possible for us to get through them all in the time that we have, so we will deal with as many as we can. I ask that you keep your answers relatively brief in response. We will work our way into some questions. To start off with, we are talking about the role of DEC. There is confusion in some circles because the name has changed. Can you briefly explain where DEC has evolved from, its relationship to the former Department of Environmental Protection, how that evolved and what the responsibilities are?

Mr McNamara: I will try to do it briefly. The Department of Environment, as it was commonly known, was formed by the amalgamation of the Water and Rivers Commission and the former Department of Environmental Protection in 2001. In late 2005, the government decided, and acted on the decision, to separate out the Department of Water and the former Department of Environmental Protection. In the middle of last year, 1 July 2006, the Department of Environment and Conservation was formed by the amalgamation of the Department of Conservation and Land Management and the Department of Environment, which is, as I say, the old Department of Environment minus the water function. DEC is the amalgam of the Department of Environment and CALM.

The ACTING CHAIRMAN: We have just heard from the Department of Health regarding its role in this procedure. Concern has been expressed about the ability of the Department of Health to make contributions, and particularly the final result once contributions are made. I note that in the original submission that was sent by your department to the Minister for the Environment of the day, Hon Cheryl Edwardes, there is no reporting of the potential health effects of lead in making the minister aware. There were requirements about health issues, such as water management and dust management, but there was nothing to make the minister aware of the potential serious health effects of lead once it was out in the environment. Did you get submissions from the Department of Health about those; why would you not include them in making the minister aware of the potential serious side effects of lead contamination; and do you believe that it should be different in the sense that the health department should play a much greater role in that advice process?

Mr Taylor: The health department was consulted and it did have input during that assessment in 2000, but we do acknowledge that the environmental impact assessment process does not adequately cover for health risk assessment and that there is a need for a more formal health risk assessment process to be done separately from but parallel to the environmental impact assessment process. Historically, it has been tacked on almost on an ad hoc basis, but there needs to be a much more formal structure and, we believe, statutory basis for doing health risk assessments. Having said that, the health department was consulted and the Minister for Health did sign off on the conditions that were applied to the Magellan process in 2000.

The ACTING CHAIRMAN: In fact, I have a copy of the letter sent to the Environmental Protection Authority by the health department. It is dated 11 October 1999. It has a number of dot points that refer to dust control, its being covered in kibbles, drinking water, the national code of practice for the safe use of inorganic lead at work, the final approval subject to detailed specifications being lodged with the public health department for the Shire of Wiluna, septic tanks, sewage treatment and rehabilitation. In the Department of Health's submission by the acting

director of environmental health, there is nothing detailing the potential significant effects of lead. In fact, you would think in some ways that lead was treated and regarded no differently from iron ore dust, for example.

Mr Taylor: I would not agree with that. I believe that lead was recognised as a significant issue as part of the assessment. That was the basis of the condition to require a health, hygiene and environmental management program, and that was included as a condition of the project. The health department was consulted regarding that condition. The Minister for Health of the day wrote to the Minister for the Environment as part of the statutory consultation process that takes place. There is an obligation on the Minister for the Environment to consult with other relevant ministers. The minister did so at that time. The Minister for Health wrote to the Minister for the Environment on 5 November stating, in effect, that the health, hygiene and environmental management plan was an appropriate condition and that the health department should be consulted as that was prepared.

The ACTING CHAIRMAN: Keiran, are you personally aware, prior to the birds dying, of the potential medical effects of lead contamination in the environment? Did you have personal knowledge, or are you aware of your department having detailed knowledge, of the medical side effects of lead poisoning?

Mr McNamara: I am certainly personally aware, even though my history is not in the Department of Environment, of the seriousness of lead poisoning and its health effects. I have attended ministerial council meetings at the national level for the past 15 years or so. There was a very prominent issue in South Australia a decade and more ago. I am well aware of that and I am absolutely confident that the senior staff and many others throughout the former environment department and now DEC are well aware that lead is a substance that causes serious problems and needs to be treated very seriously.

[11.50 am]

The ACTING CHAIRMAN: Presumably you have looked back over those original approvals you were given. Do you think that the potential damage was given adequate weight by the department of the day?

Mr McNamara: I do not have a view to express beyond what Mr Taylor has already answered. The issue was certainly dealt with through the due process by the Environmental Protection Authority, which has made a separate submission to this inquiry. There was consultation and, as Mr Taylor has said, it received a formal sign off with the Minister for Health of the day. It was given due attention. We might say of many things before this inquiry that in hindsight we could have looked at them more closely.

The ACTING CHAIRMAN: I refer to the inquiry into the Bellevue hazardous waste fire of 2002 in which it was recommended that the environmental impact assessment process in the Environmental Protection Act be expanded to incorporate a health impact assessment, where appropriate, and involve the Department of Health in that assessment. That is on page 8 of that report. Does your department now involve the Department of Health in appropriate environmental health assessments, and why is there no reference to that in the current act?

Mr Taylor: We do continue to consult with the Department of Health when health issues arise in an impact assessment. As I said earlier, there is not a formal statutory process for that to occur. We think that that is a limitation within the existing system. The Department of Health has previously put out a discussion paper identifying a number of things it believes need to be looked at in terms of its legislation. Certainly a formal health risk assessment is a matter that both departments would strongly support in terms of it having a firmer formal statutory structured process. The Environmental Protection Authority, in its submission, has made a recommendation regarding that.

The ACTING CHAIRMAN: I guess the point I make is that five years ago there was an inquiry into what happened at Bellevue, and that committee made a strong recommendation that that should happen. Have you got any idea why it did not then appear in the legislation?

Mr Taylor: No, I do not have any specific reason as to why it has not occurred.

The ACTING CHAIRMAN: Just a couple of quick questions regarding two numbers of employees. You might have already covered it, so we will be brief. Is it true that in 2006 there were only five full-time audit officers in the department, who monitor approximately 490 projects?

Mr Taylor: That would be generally correct.

The ACTING CHAIRMAN: Is it true that the department employs more officers on the approval process? Is that because the department's industry regulation program is funded solely from revenue from fees, with no separate allocation to consolidated funds?

Mr Taylor: There are two approvals under the Environmental Protection Act. One is what we refer to as the part 4 environment impact assessment process approvals. There are no fees charged for that at all, and there are no fees associated with the issuing of statements. There are no fees generated at all for audit and compliance with those. In terms of part 5, licences and works approvals, they have a fee attached to them, and that funding is net appropriated. We have more capacity to do audits with respect to part 5 approvals. We do not have any net appropriation as such for the auditing of approvals or statements under part 4 of the act.

Mr McNamara: I might add, the sum total of our effort in monitoring and compliance should not be equated to the fact that there are five staff in the audit branch. It is the totality of the industry regulation resources that is relevant. As I said in my opening remarks, there are about 75 positions in that division, both regionally and centrally in Perth.

The ACTING CHAIRMAN: Okay. I will move on now to Esperance. I want you to provide for the record the actions of DEC personnel following the deaths of birds. I want you to briefly run through the timings so that we have that on the public record.

Mr Atkins: I can pick that up from when the bird deaths began to occur in early December. The department sent samples of birds to the Animal Health Laboratories for analysis on 20 December for a general screen. The Animal Health Laboratories came back to us on approximately 30 January and advised that elevated lead levels were discovered in birds but that it was not known whether that was out of the ordinary or not, and it requested that some control birds or background birds be sampled to provide a comparison. That was after extensive screening was done to look at other causes of death. At the time the birds died in December, there was no indication of what the cause of death might be and so the birds were scanned for a variety of avian viruses and environmental toxins, such as algal toxins, and a range of pesticides. When all of those results came up as negative, a general heavy metal scan was done on the samples, which showed that the lead levels were higher than the other metal levels. Background samples were then provided to the Animal Health Laboratories. By the end of January, the department also received a complete monitoring report from the Esperance Port Authority, which indicated elevated dust recordings from the February 2006 and May 2006 readings. Following that, the department then conducted a full compliance inspection of the port. Also, by the end of February, the department had undertaken a fairly detailed analysis of the air quality monitoring report provided by the authority. It also, at that time, received a rainwater tank report from the Esperance Port Authority and a week later, on 6 March, we received confirmation from the Animal Health Laboratories that it considered that the birds had died from lead poisoning.

The ACTING CHAIRMAN: Robert, I think I have asked you a question that has too long an answer. That is no reflection on you. We will have that answer in writing. Did you want to make a final comment?

Mr Atkins: The final comment is that, on 15 March, the department proceeded to issue a section 73A pollution prevention notice on the port authority to cease all handling of lead products.

Mr McNamara: When the Animal Health Laboratories' results were received on 6 March, the officer who was the recipient of those was not at work on that day. On 7 March we became aware of it, including at my level. We went into a very active round of discussion with the Department of Health, the Esperance Port Authority, the Shire of Esperance, the Department for Planning and Infrastructure and with ministers. We had issued a media statement, including advice from the Department of Health about the public health risk issues, on Friday, 9 March.

Mrs D.J. GUISE: I wanted to clarify if I have read the submission correctly. Can you confirm whether or not the review of the Esperance Port Authority's licence was already under way following the air monitoring results showing that dust was leaving the port? I believe you had those results at the time those bird deaths took place. Is it correct that you were already reviewing the licence at that time? Can you confirm that for me? My reading of the submission indicates that that is the case. I want to know whether I have read that correctly.

Mr Atkins: I believe we decided to undertake the licence review in January 2007, the date of which I would have to confirm.

Mrs D.J. GUISE: I will go back and perhaps you can confirm that for me.

[12.00 noon]

Dr G.G. JACOBS: A prevention notice was issued on the port on 15 March. The obviously high dust monitoring levels in February 2006 and May 2006 did not engender any response. In fact, those levels go in an annual report from the port that is given to you. The concern from the community is, in fact, what happened between October and March. You would have received the report with those results in it in October-early November but it took you from 5 to 15 March to put a prevention notice on the port. You would have known those results probably three months before because it was in the report. The prevention notice Peter put on the port mentioned that the reason for suspicion, or something of that wording, was that, in fact, the dust monitoring results had exceeded the levels, or had been very high, since May 2005. Those response times I suggest to you were perhaps quite slow.

Mr Taylor: The monitoring report we received on 30 October was deficient. It did not have the February 06 data in it. It had the May 06 result in there. That was one sampling point in the whole year's results, and one high result does not necessarily mean that there is a dust problem.

The ACTING CHAIRMAN: What was that result?

Mr Taylor: It was about 25 -

The ACTING CHAIRMAN: It was high lead dust.

Mr Taylor: It was high lead dust. We asked for a complete report and it was not until, I think, 30 January that a complete report came in with all the results, including the February 06 result. As Keiran indicated, we recognise there have been inadequacies in our processes, and one of those is clearly the time frame taken to respond to those reports. We acknowledge that, but, at the same time, if a complete report had come in on the due date as required by the licence, it would have greatly assisted us in determining that there was a pattern of high results and -

Dr G.G. JACOBS: May I -

The ACTING CHAIRMAN: Order! Can we just clarify this? You were aware around October that one of the dust collection samples had high lead levels. Subsequently, birds died in large numbers but in that initial testing it never occurred to anyone that lead might be the cause. Is that what you are saying?

Mr Taylor: Lead was considered to be one of the options and we were looking, I guess at that stage, for any obvious spill of lead because we felt that we were looking for something obvious that could be linked to the bird deaths, even when it was found out that the likely cause has been the dust in trees and the birds flying through the trees. This is an exceptionally rare event. We could not determine it had occurred anywhere else. The scientists are still saying to us, "Gee, that is an unusual event." and "Are you sure that that's happened?" There was not necessarily any clear causal link immediately apparent to us during that period. We accept on reflection that there should have been greater attention to looking at the linkage between the result we had at the end of October-early November and the subsequent findings.

Mr M.P. WHITELEY: Whose failure was it to provide you with the February 06 data; was it the operators?

Mr Taylor: The port's failure. The licence required the port to carry out the monitoring and to report it by the due date. Not only did it not report it by the due date, it did not get the results back from the February 06 monitoring until the end of January 07. We believe that if it had carried out the monitoring adequately, it should have got those results, probably by March 06 and drawn it to our attention, and we think that the issue would have been clearly avoidable.

Dr G.G. JACOBS: Despite that, however, if the February 06 dust monitoring gauge at the DG 4 Taylor Street tea rooms was actually missing, in May 06, DG 3 and DG 4 - Bostock Street and Taylor Street tea rooms - were obviously in excess, quoted in milligrams per square metre for 30 days. Irrespective of the February result, that should have perhaps alerted the Department of Environment and Conservation before 15 March.

Mr Taylor: We agree with that. The officer got the report - I do not want to cast aspersions on the officer - and said it was inadequate. His reaction was to ask for a final report. It should have been looked at more closely and we accept that.

The ACTING CHAIRMAN: Was that officer the same officer who collected the dead birds and sent them for processing?

Mr Taylor: No, it would have been at our Albany office, whereas the bird deaths were occurring at our Esperance office.

The ACTING CHAIRMAN: I note that the birds were left in storage for roughly two weeks after they had been collected. Given the large number of bird deaths and the lack of any apparent cause, do you think that was appropriate?

Mr Mell: If we go back to early December, the first bird deaths recorded were actually silver gulls and that was on 7 December. Subsequently, a different group of birds began to be recovered from around Esperance that had died of unknown causes. Retrospectively, we can see that the gull deaths were totally unrelated to the deaths of what were honeyeaters, wattle birds and yellow-throated miners. At the time, which was 13 December, there were a large number of wildfires in the Esperance district. All the Esperance staff were fully occupied responding to wildfire suppression. Birds were collected and placed in a freezer. The Esperance district office was subsequently advised that, for histological purposes, frozen specimens are not suitable. They were asked to collect fresh specimens. Between 21 and 29 December fresh specimens were collected and subsequently sent through to the Animal Health Laboratories. At that point, there was still no indication as to the cause of death. The first response was: is it some form of viral or bacterial outbreak. The first things the animal health laboratory under its protocol must look for are things like avian influenza and Newcastle disease.

The ACTING CHAIRMAN: Given that, I think, approximately 4 000 birds in total died in that first instance, if no further birds had died we would never have known there was a lead pollution issue in Esperance.

Mr Mell: We did actually extract the lead results from that initial group of eight birds that were tested. We have never actually collected 4 000 birds. That is an extrapolation of the number of birds found around the town. It is a number that is often quoted but it is not a confirmed number.

Mr McNamara: We certainly would have known about the lead issue at Esperance even if the birds had not died, when we got the full year's report from the Esperance Port Authority on its monitoring.

The ACTING CHAIRMAN: Perhaps, but given that there had already been elevated lead levels in your dust recordings at two sites well away from the port, I would have thought it was a fairly significant event. Answer that question first, because I was leading to a different issue.

Mr Taylor: When we did get the final report, which still took us three or four weeks to review, the officer wrote a very direct letter to the port authority saying that there was a need to urgently upgrade its air monitoring system because of the significant concern that we had detected associated with the result, so having got the final report, we took very strong action to address the issue. We were in the process of addressing what was a clear escape of lead from the port at the same time, in essence, that we got the confirmation on the bird results.

The ACTING CHAIRMAN: You said this was an event you had not heard of anywhere else in the world. I will be asking this also of Magellan Metals: is lead carbonate a unique substance? In your experience, is exporting it as a carbonate undertaken anywhere else in the world?

Mr Atkins: We do not know. It is a natural ore body so I would assume it is exported in that form elsewhere, but it is certainly not exported in that form elsewhere in Western Australia.

The ACTING CHAIRMAN: Would you have thought that that was a reasonable thing to know before approval was given?

Mr Taylor: The advice we got from both Magellan and the port was that it would be exported in a moist pellet-like form. We believe that if had been done in that form and if the monitoring had been done adequately or, even if Magellan and the port authority had, in accordance with their legal obligations, notified us of the change of form, again, we think it could have been quite readily avoidable.

The ACTING CHAIRMAN: How do you know that if you do not know how it is exported anywhere else in the world?

Mr Taylor: Again, it is about managing dust from it. If it is in a moist, pellet-like form, it should be manageable in terms of avoiding dust. They would have been handling the product, seeing the product and the extent of dust associated with it. They had plenty of opportunity to see that and report it and to notify us and to do the things that should have occurred under the act.

[12.10 pm]

The ACTING CHAIRMAN: We will get to that area later; we have a lot of questions relating to it. Are there any questions relating to this particular area before we move on?

Dr G.G. JACOBS: Before we move on to the form of the lead carbonate and the issues of agglomerates versus pellets, can you walk us through the isotope fingerprinting process which told you that the lead in the birds was the lead that was exported through the port? I believe that process took another six weeks.

Mr Atkins: It is a process using a ratio of isotopes of lead, of which there are four, which can type individual ore bodies. It is a process that is not done by very many laboratories. There is one in Western Australia and one attached to Macquarie University that has an association with the CSIRO. It is a radiological technique. It takes time to prepare samples and send them across to that particular laboratory. Initially, we had to source competent organisations to do that. That is why

that took some time to do. The initial priority for the department was to identify the source and cut off the source of lead contamination entering the town.

The ACTING CHAIRMAN: I wanted to get on to the next section, but before I do, the member for Peel had a question on an earlier area and I forgot to give him the call.

Mr P. PAPALIA: You said in your submission that you had concerns about the techniques you used for monitoring. As early as August 2005 you approached the Department of Health. You received that advice in September. It went to Catherine McCallum. You acknowledged that it was critical advice that suggested that more comprehensive monitoring was required and that dust risk assessment was also needed, but due to staff changes and departmental rearrangements at the time and a communications failure between regional and central groups, this critical advice was not acted upon. You said there was not a continuity of licensing officer during this period. Can you explain what that means?

Mr Atkins: In August 2005 the regional office took a decision to review the licence. It wrote to the health department directly and gained advice back from the health department that you quoted. The regional office then sought advice from head office on how to go about a licence review. The department was in the process of reviewing how it should licence and regulate ports generally around the state, mainly for dust issues. The regional office was advised that it should await the outcome of that review before proceeding. Unfortunately, the person providing that advice to the region was not aware of the health department advice and the matter rested there. Soon after that, that officer left the organisation and the case was not picked up. It is clearly a communication issue and one of experience as well.

Mr P. PAPALIA: That advice from the Department of Health was very specific - that dust monitoring techniques being employed were not adequate.

Mr Atkins: It was quite specific. That dust monitoring should enable a comparison to the national environmental protection measure for airborne dust. That was the basis of that advice. The depositional dust monitors still determine whether there is dust leaving premises. Depositional dust monitors are not able to be compared to a national standard for environmental protection but they do tell you whether you have dust leaving the port area. The monitoring result that we received in January of this year bears that out.

Mr Taylor: Irrespective of whether the monitoring was put in place, the depositional gauge monitoring should have continued. It was more than adequate to determine that there was significant lead escaping from the port area and should have been able to alert the port that action needed to be taken.

The ACTING CHAIRMAN: I will jump forward in our order of questions because I want to particularly cover this area of pelleted versus agglomeration versus carbon dust.

Mr T.G. STEPHENS: The document provided by your department dated 16 November 2004 from Chris Gunby to the Esperance Port Authority states that the licence is for pelleted lead carbonate. Could you please advise what is meant by "pelleted" and why is that term being used, as it is not in the application?

Mr Taylor: Associated with the application was a letter from the Esperance Port Authority that clearly made reference to Magellan's advice that as a further measure to prevent dust emissions, the lead carbonate will be produced in moist small agglomerates, or balls, less than 10 millimetres thick. That was the same advice that Magellan provided directly to the EPA. Because it was a small, spherical agglomerate, it was deemed to be a pellet-like material. There was communication with the port authority and Magellan. While they said they could also call it granulated, they said that pelleted would be a reasonable way to describe it.

The ACTING CHAIRMAN: Do you not think that is misleading in the sense that that was the formal application that was put through? A lead pellet through an air rifle is certainly not moist and it is certainly not granulated.

Mr Taylor: I would take the term “pellet” to be a small spherical -

The ACTING CHAIRMAN: Hard object.

Mr Taylor: I would not describe it as hard myself. The word was run past both the port authority and Magellan, and they said that that word was as good as anything. I understand that the port has maintained on its website since that time - or until a few weeks ago when they took it off - that the products that they ship included pelleted lead carbonate material.

The ACTING CHAIRMAN: If you asked the average person in the street who has seen a shotgun and lead pellets contained within a shotgun, that would be the interpretation most people would put on lead pellets.

Mr Taylor: The key thing the department assumed was that they would be in moist, small -

The ACTING CHAIRMAN: Agglomerates. Why did it not say that?

Mr Taylor: From the information that has been put to us, it was not intended that we should have a substantial dust component. If they were saying to us that it will be in the form of agglomerates, but it will have a substantial dust component as well, we would have reacted to that information. What was put to us emphatically by both the port authority and Magellan was that it would be in these small moist agglomerates. We used the term “pelleted”. When we asked them, they said they did not disagree with that term.

The ACTING CHAIRMAN: Why did you use the term “pellets” when it was not in the application from Magellan Metals? The word was not in the application from the port. Who chose to change “moist agglomerate” to “pellet”?

Mr Taylor: The licence officer. The licence officer asked the port authority and Magellan whether that was a reasonable phrase. Magellan came back and said, “That’s as good as any for us.”

Mr T.G. STEPHENS: In the letter to Mr M. Jeffries of the Department of Environment dated 8 October 2004, Magellan Metals stated -

An additional processing step that has now been included in the flow-sheet is the agglomeration of the concentrate into 10mm granules. The process is simple and will significantly reduce the risk of rogue dust emissions during handling and ship loading.

Was that process undertaken?

Mr Taylor: That is part of our investigation. Information has been put to us in meetings. This is not part of our formal evidence at this stage. We understand that that was probably implemented for a short period but it may have ceased some time after they started railing material to Esperance. We have not formally taken evidence or specific information on that at this stage.

Mr T.G. STEPHENS: The department did an inspection of the Esperance Port Authority while the shed was loaded with the lead product. The date escapes me.

Mr McNamara: May 2005.

Mr T.G. STEPHENS: That question of whether it is pelleted, as per the words chosen by your officer, or an agglomeration would become reasonably obvious in an inspection.

[12.20 pm]

Mr Taylor: The officer did not enter the storage loading areas due to occupational health and safety issues and not having the appropriate safety equipment. Notwithstanding that, the information, as far as we can ascertain from our files, is that the port did not notify us in any way that the material was in a different form.

Mr T.K. WALDRON: Just on that, Mr McNamara, you stated earlier in your opening address that the problem could have been avoided if you had been notified. Is that what you said?

Mr McNamara: That is one of the things I said, yes.

Mr T.K. WALDRON: So if there was an alteration to the substance and you had been notified, you could have done something about it. Why does your department not check on that from time to time? Is there no requirement on you to have someone check on what is happening?

Mr Taylor: Yes. We endeavour to undertake inspections to the extent of the resources we have. In this case our inspection frequency was about once every three years. At the same time the act has a specific obligation. The law says that people who are handling this material should notify us.

Mr T.K. WALDRON: So they did not notify you of any change?

Mr Taylor: From our records to date, no, we have not been able to ascertain that we were notified. I mean, it is not hard to notify us.

Mr T.K. WALDRON: Who should have notified you, the port or Magellan?

Mr Taylor: Both Magellan and the port.

Mr McNamara: I have also said that we recognise through this whole experience there have been deficiencies. Our submission does identify that there was that inspection in May 2005, but that the officer did not go inside the relevant enclosures for occupational health and safety reasons.

Mr T.K. WALDRON: So when that happened, did you go back and meet those health and safety reasons so you could get in?

Mr McNamara: Obviously not. I think clearly one of the things that we need to look at in terms of our own procedures is where we are dealing with materials that raise the issue, staff are appropriately clothed and equipped to carry out such inspections. That is clearly one of the things that we -

Mr M.P. WHITELY: Did he even ask the question, though: is it being transported in that form?

Mr T.G. STEPHENS: Why would it be an occupational health and safety issue if it was not in the form that was required under the licence? You would not have gone in there because presumably an occupational health and safety issue had arisen because it was not pelleted. You knew that and it was in breach of the licence arrangements.

Mr Taylor: You still would not go into sheds of that nature.

Mr T.G. STEPHENS: Even if it was pelleted?

Mr Taylor: I do not believe so, no.

Mr M.P. WHITELY: Did he or she even ask the question?

Mr Taylor: No, we do not believe so.

Mrs D.J. GUISE: Mr McNamara, in the original submission with regard to the export of lead carbonate concentrate from the Geraldton port, it was designated that there be an initial moisture content of eight per cent and this was to be transported in a covered kibble from the mine site to the port. That is a 670 km journey by road. That was the original plan in terms of the licence approval. It seems to me that there is an opportunity in reassessing that licence approval for the change to the Esperance port for the transportation of this concentrate to be reinvestigated because it is a different mode of transportation and a considerable length further. Can you tell me what investigation was taken at that point for the approval to change from Geraldton to Esperance in terms of the required moisture content of the lead carbonate, if any?

Mr Taylor: The EPA and the department relied heavily on the advice of Magellan and the port authority, as I say, that it would be this moist agglomerate or pellet-like material. The actual

transport was in ways deemed to be safer because it was largely by rail and rail was deemed to be a safer form of transport than road because there is less opportunity for accidents and spill and it was going to be contained in what was put to us as covered kibbles. It was actually seen as a low risk of spill or accident to be carrying it by train.

Mrs D.J. GUISE: No reinvestigation of the moisture content required in the carbonate given the different length of journey?

Mr Taylor: In fact, they were moving from what was referred to as filter cake to agglomerates, so again they actually put that as a significant improvement in the likelihood of dust being generated because they were moving from a filter cake to these small round agglomerates.

Dr G.G. JACOBS: There is a serious issue of definition here. Is the agglomerated form purely reliant on moisture or do we add anything else to the process?

Mr Taylor: Can I suggest the issue of agglomeration and pellets is a somewhat semantic issue. What was put to us was clearly that the material would be in a non-dusty form. Whether you call it an agglomeration or whether you call it a pellet, the inference was that it would be contained in a sphere which would be largely moist and would not have a significant dust component. What has eventuated is that the product at the end of the day still had some spherical elements associated with it but it had a significant dust component. The information that was put forward, which I believe Magellan and the port authority both clearly understood, was that what they were seeking approval for material which was largely in a moist sphere and it was implied that there would not be a significant dust component associated with it.

The ACTING CHAIRMAN: Given that assumption, and given that you had monitors in March 2006 showing elevated dust levels of lead, did that not tweak your interest?

Mr Taylor: Sorry, could you repeat that question?

The ACTING CHAIRMAN: Given that in March you found elevated levels of dust in a monitor, did that not tweak your interest? Here you had a moist agglomerate that you thought was being exported that should therefore have no dust whatever and yet you had dust levels at a monitor.

Mr Taylor: In March this year?

The ACTING CHAIRMAN: In May 2006.

Mr Taylor: We got the May 2006 results at the end of October - 31 October 2006 - and yes, we should have taken more immediate action at the time.

The ACTING CHAIRMAN: I would like to refer to something that we have had through a submission. It says the DEC conducted another lead licence inspection on 1 February 2007, which, as with the previous inspection, involved an initial inspection meeting to discuss compliance with licence conditions followed by a site inspection. In response to a specific request by DEC, this inspection site tour occurred whilst the authority was loading the lead shipment. We have had submissions from local residents saying that when the dust is loaded, because there is not adequate sealing of the ship, a cloud of dust can be seen above the ship. Surely, at that stage your staff would have twigged that it was not an agglomerate. In fact, DEC subsequently informed the authority on 14 February 2007 that it was "found to be compliant with all conditions of licence 5099/10, except for the obligation to report environmental monitoring data, which was being handled via separate correspondence".

Mr Taylor: The officer undertook that inspection to determine whether excessive dust was coming off. Excessive dust was not detected associated with that loading on 1 February. We also had high-volume air sampling in place at that time and the high-volume air sampling did not detect any excessive dust associated with that February 1 loading. Subsequently, as part of our evidence gathering, we have gone and got hold of, or got access to, all of the loading logs from the Esperance Port Authority, and to my understanding the loading log for that loading did not indicate an

excessive dust issue, but we have seen now a considerable number of other logs from loading which indicate significant dust issues occurring and the port being aware of those.

The ACTING CHAIRMAN: Did he not see that it was dust being loaded?

Mr Taylor: There was nothing in the loading log to indicate that a dust issue occurred. Our high-volume monitoring did not indicate any dust associated with that particular loading.

[12.30 pm]

The ACTING CHAIRMAN: That is not the point I am making. He would presumably have been aware of the original application calling for pelletised lead, and you are stating that you believe that that is the same as an agglomerate. Surely he would have seen in that loading process that it was not an agglomerate.

Mr Taylor: He would have been inspecting from some distance. He would have been looking for visual dust. There was nothing in that loading which caused him excessive concern -

The ACTING CHAIRMAN: The committee will be inspecting the port and the facilities. Are you saying that we would not be able to see that substance anywhere along its route from the loading facility to the ship?

Mr Taylor: From where the officer was, he has advised us that he did not note the nature of the material. As I understand it, he did not enter the shed, he did not enter the conveyer system and, as I understand it, he watched it from a distance. As I say, the port's log itself did not indicate any significant dust incident at that loading, although its other logs have indicated significant dust issues at certain loadings.

Mrs D.J. GUISE: I just want to come back to this. Your submission, on page 23, clearly outlines that the inspection and audit in February 2007 was primarily aimed at observing whether excessive dust was being caused during loading. Again, due to occupational health and safety reasons, the inspector did not seek to enter the storage or loading facilities. No excessive dust was observed during the lead carbonate loading. It would be a bit hard to observe it if the officer is not there. Can you tell the committee exactly where this officer was?

Mr Taylor: I cannot at this time, but I can provide that information.

Mrs D.J. GUISE: I need to know, Mr Chair, how on earth the department, following the inspection, found that the port authority was in compliance with its licence, if it was not able to observe loading and storage facilities.

Dr G.G. JACOBS: The issue I raised about the agglomerate is that if the agglomerate is purely produced by a particular moisture content, whether it be eight per cent or 12 per cent, I suggest to you that by the time it leaves Wiluna, is transferred at Leonora and comes 950 kilometres to Esperance, any moisture that it had in it would probably have dissipated, the product will have dried, and it would not be an agglomerate. That is why it is very important to understand what the difference is between moist agglomerate and a pellet.

Mr Taylor: We are still investigating that. We have records of all of the moisture contents of the material as it was received at the port from the rail loads and also the moisture contents as it was being loaded onto the ship. There is a very fine moisture limit in terms of the loading requirements. If it is too moist, the ships will not receive it because it has effects on ballasting. If it is too dry, it has an effect on the loading regime. We understand, in fact, that at times it was too moist and it actually had to be sent back to the mine. However, the records we have show that the moisture level, certainly in the early days, was slightly above nine. It varied down to seven. There was still moisture associated with certain agglomerates, but what seems to have been a failure is that there was an excessive amount of dust generation which was no longer a part of the agglomerate. Although there was still agglomerate there, it now had a significant dust component and we believe

that that was not consistent with the nature of the approval, and that is what should have been notified to the department.

Dr G.G. JACOBS: Was there any water applied to the product between Wiluna and the loading of the ship?

Mr Taylor: The port had facilities to provide some dust suppression to the actual loading itself. We are still investigating that. They indicated to us that they tried certain materials; it did not appear to work. We have heard anecdotally that they tried mixing different shipments in the shed so that they had a dry load and a wet load. We have heard anecdotally that they were mixing it in the shed - again, operations that would not have been consistent or intended as part of the approval, but that we were not notified of.

Dr G.G. JACOBS: May I humbly submit, though, that you should have been checking this? Is it not your role to check that these things are happening or not happening?

Mr Taylor: Yes, we should do more checking of all facilities.

The ACTING CHAIRMAN: The member for Wagin had an earlier question.

Mr T.K. WALDRON: You mentioned, Mr Taylor, that sometimes it was too moist, the ship would not take it, and it was actually sent back.

Mr Taylor: That is what we have heard anecdotally. We are still in the phase of going through our investigation, collecting all the information the port has had for some time -

Mr T.K. WALDRON: What happened if it was too dry?

Mr Taylor: Again, we have heard anecdotally that the port said to the company, "Don't keep sending us this material; it's too dry," and yet it seems to have continued. We are still collecting our evidence and information, but it seems to be matters which were generally under the control of the port to manage the dust. I accept Dr Jacobs' strong assertion that we should have done more inspections and we accept that we should have done more inspections.

Mr T.K. WALDRON: Should the port have notified you about the issues it was having, and did they?

Mr Taylor: We believe it is clearly in accordance with the intention of the act and the intention of the licence to notify us when there is a change of operation or materials.

Mr T.K. WALDRON: That did not happen?

Mr Taylor: As far as we have been able to ascertain from our records at this stage.

The ACTING CHAIRMAN: I will go to the member for Wanneroo for a question, but before I do, can I ask that, as you are obviously proceeding on further information gathering, that you make the information available to the committee as you collect it?

Mr Taylor: We will for the part of the evidence that could lead to prosecutions under the act, and, with respect, we would obviously like to talk to the State Solicitor's Office with respect to information that we provide, but we are aiming to be as open as we can and to provide all the information that we can to the committee.

The ACTING CHAIRMAN: We might pursue that further.

Mrs D.J. GUISE: I ask you to pursue some questions in relation to the licence to export lead. Is the department aware that the Magellan mine relied on a particularly fine grind of the ore mined to liberate the lead? Are you aware of that, Mr McNamara?

Mr McNamara: No.

Mr Atkins: No, we are not aware of that.

Mrs D.J. GUISE: No-one there? Okay. Do you think that factor should have been relevant to the environmental impact assessment and conditions placed in the management of the product, in hindsight, perhaps, since you were not aware of it in the first place?

Mr Taylor: Grinding of material would occur in the processing of ore, and the conditions at the mine should aim to minimise lead emissions at the mine itself, but the primary risk associated with dust at the mine would be associated with occupational health and safety issues for the miners and the operators.

Mr Atkins: If I could just add to that, in terms of how it is mined is one issue, and I guess Mr Taylor mentioned that in terms of on-site occupational safety. It is the responsibility of the miner to have that material in an appropriate form before it takes it off-site and rails it to its port of export.

Mrs D.J. GUISE: I think it is heading towards this: 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-sized degradation when handled? Does that go without saying?

Mr Atkins: Again, it is the responsibility of the proponent to work that material into a fit state to be moved off the mine.

Mrs D.J. GUISE: 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?

Mr Atkins: I cannot comment on that.

Mrs D.J. GUISE: 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? Any comment?

Mr Mell: We are not chemists, but from my discussions with the Animal Health Laboratory, I would make two points. One is that there were differing views with respect to the water solubility of lead carbonate; the written advice is that it is insoluble in water. We have subsequently been advised by DOCEP that it does not take much of an adjustment in the pH to change that solubility. Secondly, very little is known about the processes or the chemical changes that occur in the gut of animals, but what we do understand is that they vary from species to species, so there is a huge range of variation of response, depending on whether the animals are mammals or birds. There is a difference of response between species and even between individuals, and it has a bearing in terms of the processes of digestion.

[12.40 am]

Mrs D.J. GUISE: Thank you. I do not want to put you all on the spot, given your level of knowledge, but we want to put them on record so that you can respond further. Would you comment on the proposition that the land-based dust monitors used at the Esperance port are inadequate to monitor the emissions into the environment of Esperance because of the strong winds; the fine particulates of lead carbonate can disperse into higher atmospheric layers before descending some kilometres away. Given what you now know, do you have a view about the land-based dust monitors being adequate for Esperance?

Mr Atkins: The land-based dust monitors did provide and have provided basic information on escapes of lead carbonate from the port area, as indicated by the results in the port authority's annual report. The issue is that those results were not made known to the port authority and from the port authority to the department in a timely fashion.

Mrs D.J. GUISE: I understand that the port and the proponent have the responsibility of lodging with you a dust management plan. Is it possible for that to be provided to the committee?

Mr Atkins: Yes, it is.

The ACTING CHAIRMAN: We need to move on because we are fast running out of time. In fact, we have gone beyond the time allocated.

Mr T.G. STEPHENS: I will be very brief. You mentioned an investigation that could lead to prosecutions. Is that the prosecution of any other party other than your own agency?

Mr McNamara: Yes.

Mr T.G. STEPHENS: Can it lead to the prosecution of officers of your agency?

Mr Taylor: The Environmental Protection Act provides defences under the act if a prosecution is undertaken. If a person is charged with, say, causing pollution, if he can demonstrate that he has taken all reasonable and practical measures to prevent that pollution, and they have done it in accordance with conditions, then they are matters that the court can take into account. The act is constructed in a way that people have an opportunity to provide reasonable defences. The court will determine at the end of the day whether they are culpable. There are no provisions in the act that relate to a prosecution of the department. We understand that any of our actions would be covered by things such as the Civil Liability Act, and they would be matters -

Mr T.G. STEPHENS: You are supervising the company and the port authority in reference to them doing their job. After your inspector does his job and after the agency has done its job, who inspects you?

Mr Taylor: I will give an analogy. We believe that is like somebody saying that they were speeding at 145 kilometres an hour and because there was no radar, the police are to blame for the accident. The act provides that the people who are handling the material have a clear legal obligation under the act not to cause pollution. If they cause pollution, there are defences. However, I would not have thought that a defence is that the regulator -

Mr T.G. STEPHENS: I will interrupt you. You received a letter from the Department of Health that for whatever reason you did not answer. The Department of Health never received a response. The letter was dated September 2005, alerting to you significant health concerns. Who holds you accountable for your processes of handling the alarms?

Mr McNamara: I am the director general of the department and I am accountable for the performance of staff at the end of the day. My accountabilities are through the minister to the Parliament, as you are aware.

Mr T.G. STEPHENS: Is there any risk that in the process of prosecuting others that as an agency you are hiding your own inactivity behind the prosecution of others?

Mr McNamara: I have the responsibility of administering the Environmental Protection Act, which includes a responsibility to investigate alleged offences subject to normal policy that governs prosecutions and enforcement to prosecute offences where appropriate. That is a judgement that I am required to make about other parties. That is not the mechanism by which one deals with the performance issues of one's own staff.

Mr Taylor: There seems to be a misunderstanding that the department's performance is a material defence under the act for causing pollution. As I say, there are clear defences under the act as to what people can use as a defence. One is that they take all reasonable and practical measures to avoid that pollution. Yes, if they comply with those conditions, they can use that as a defence. However, they cannot say that the department did not inspect us, therefore we can use that as a defence.

Mr T.G. STEPHENS: You inspected them and then gave them an approval after you had been down there on a particular date and after you had not looked at the facility and then you renewed their licence.

Mr Taylor: If they have information like that and if it leads to a prosecution, they are able to use whatever defences there are under the act.

The ACTING CHAIRMAN: We have been given information such as a series of improvement notices on the mine operators about their performance at the mine. Certainly, we have received information to suggest that the department should have been aware in the very early stages of the mine's development that there were serious issues about the mine's operation in terms of fulfilling all the requirements of the licence. There were licence problems with the mine when the mine was opened. Then we get to the stage at which your department has received submissions from people complaining about dust issues in Esperance - I refer not to lead dust but to nickel and iron ore dust - on repeated occasions. On the one hand we have a mining company that is not meeting the requirements of its licence repeatedly in the early instances. I gather that the conditions set by the minister were not met when the mine first started. Then there are issues of there already being dust problems in Esperance that you know about and yet that same system is approved for something that you have admitted you know is an extremely dangerous substance without any change to loading at those facilities and without any proper checking of that for a period of three years afterwards. You were aware all along the way you were dealing with a company that had a history of non-compliance with requirements of its licence and a port that was having issues with non-compliance with its licence; yet you still recommended approval. The process that it took to give that approval from when it was made by the port to approval was six weeks from November through to the final approval by the minister. I am talking about 28 September through to the final approval by the minister to sign off in late December; in fact, even shorter than that for the change in the port licence conditions. That went from 28 November to 16 November. Over a period of just two weeks you changed the port's licence authority and then the minister approved her section of it four weeks later. How could you do that knowing the history of non-compliance by the company and the port?

Mr Taylor: I would like to check the dates. What letter are you referring to? Is it the Magellan letter -

The ACTING CHAIRMAN: The port application was sent to you on 28 September 2004. It was signed by Colin Stewart, chief executive officer. That was an application to amend the licence that relates to the bulk handling of lead carbonate. The next letter, dated 16 November, is from Chris Gunby to the Esperance Port Authority. It reads in part -

Further to your licence amended application dated Tuesday, 28 September 2004, please find enclosed conditions which now apply to your *Environmental Protection Act 1986* Licence.

To that there are attachments. The first states that the licence is issued to the Esperance Port Authority for storage and ship loading of iron ore, nickel concentrate, pelleted lead carbonate etc. That is just over two weeks later that it went from application to approval of the licence.

Mr Taylor: Sorry, that is the twenty-eighth of the ninth to the sixteenth of the eleventh. That is about six or seven weeks.

The ACTING CHAIRMAN: Sorry, you are right. But nevertheless -

Mr Taylor: We would advertise it for three weeks to get comments.

The ACTING CHAIRMAN: Yes, you are right. Then it was ticked off by the minister - I know it is a different process - on 29 December. It would seem to me that that time period was extremely short with the company that you were aware was having problems and a port that you were aware was having problems.

[12.50 pm]

Mr Taylor: We believe we acted on the information that we had before us. On the issue of the mining company, they had commenced some construction before they had finalised some

management plans. With the rate of development that has occurred in the state over the last few years, there have been occurrences where companies have started work before all of the management plans had been put in place, but that was not necessarily an indication that they caused any harm or pollution at that time. The improvement notices that you referred to, as I understand, are probably improvement notices which were issued by the Department of Industry and Resources some time during 2005. We are not notified of those, and they would not have been material at the time that we were considering the applications. Even though the formal request from the port authority came in on the twenty-eighth of the ninth, and we issued the approval on the sixteenth of the eleventh, we were aware of the proposition before that. We were aware that the port had issued media releases. We were aware that the port had gone to its port community consultative committee. So there were things which were happening for a period of time before we actually got the licence application. But I come back to it, and we appreciate we are sounding defensive, but we relied very, very heavily on the advice that we got from Magellan and from the port regarding the nature of the material.

The ACTING CHAIRMAN: I guess that is my point: why would you rely so heavily on advice -

Mr Taylor: We -

The ACTING CHAIRMAN: I will just finish. Why would you rely so heavily on advice when you were aware of problems with both the company and the port?

Mr Taylor: In hindsight we clearly had too much trust in both the mining company and the port to abide by the legislation and to notify us of any changes in the situation.

Dr G.G. JACOBS: The issue of the amendment was in fact needed because in fact the original plan to send lead through the port of Geraldton had changed to Esperance. So in order for that to happen through the port of Esperance, there needed to be an amendment. The nature of that amendment is really the issue, because the nature of the amendment will add lead carbonate ore to the other bulk products that go through the port of Esperance. But the issue that is missing in the amendment is the actual form which that lead carbonate takes. In the preamble in the amendment, it mentions the addition of lead carbonate in pelletised form but nowhere else - nowhere else - in that amendment does it mention anything about the form of lead carbonate. It talks about lead carbonate but it does not talk about the form. How do you believe that that sort of breakdown would have occurred, because in fact that is really the nub of the second point in the terms of reference: how did we get lead carbonate, how did Esperance get powdered concentrate instead of pellets?

Mr Atkins: Our understanding is that the initial shipments were in pelletised agglomerates, as the mining company indicated it was going to ship it. Some time late in 2005, that changed. The reasons for that change and how it changed are still being investigated by us, but we understand that their initial shipments were according to specifications, and for some reason those specifications changed.

The ACTING CHAIRMAN: Can we reasonably assume that, given that the approval that was given for the export of lead at Geraldton had nothing to do with agglomerates, that was an additional statement that was made on the application for Esperance? So the approval that you gave for Geraldton was as lead carbonate dust - not as pellet, not as ingots. There was earlier talk of developing it into ingots, but then the company said they were not sure when that was going to start. So your assessment was done based on the fact that it would be as a form of dust.

Mr Taylor: It was as a moist filter cake. That was the way it was described in the assessment.

Mr T.K. WALDRON: A moist what?

Mr Taylor: A moist filter cake, which is sort of a product from the end of the grinding and milling and associated -

Mr T.K. WALDRON: A filter cake was mentioned before and I was not sure what you meant by “filter cake”.

Mr Taylor: It is just, as I would understand it, a moist -

Mr Atkins: Moist compressed.

Mr Taylor: - compressed residual that you would get out of crushing rocks, putting it through machines to take out the lead bit and you would just have it bound to particles.

Mr T.K. WALDRON: Which is different from agglomerate.

Mr Taylor: Yes, and the strong argument to us was that the agglomeration process would - I quote from Magellan - something like significantly reduce the opportunity for dust to occur

Dr G.G. JACOBS: Does that agglomeration process involve the addition of any chemical to agglutinate those particles or are we just talking about water?

Mr Taylor: We understood it was going to add some chemical as an adhesion to form that agglomeration.

Mrs D.J. GUISE: Unless I have missed something, it seems to me that the lead carbonate was going to be transported in the same form whether it went to the Geraldton port and ultimately to the Esperance one. However, I note that the EPA expressed concerns that the facilities and procedures at the Geraldton port - and I am quoting - would not be adequate to prevent spillage. In the event of spillage during transfer from sheds and ship loading, there is potential for lead to be mobilised into the air as dust and particulates are washed into the marine environment of the port contaminating sediments. They are going to be transporting the same way, as much as I understand, so therefore I assume that the investigation of the facilities and the procedures at the Esperance port that was undertaken was the same for the Geraldton port. Given what the EPA stated, can you explain to me the major differences that you then found between the two ports that led to the licence being granted for Esperance?

Mr Taylor: Not specifically. We can get further detail on it but, again, we were working on the clear understanding that the facilities at Esperance were clearly of a better standard than Geraldton's with respect to storage and handling of those materials.

Mrs D.J. GUISE: If you can provide the answer to that question, I would appreciate it.

The ACTING CHAIRMAN: We are just about at the time to finish and I want to get this out. I have a comment here, and I cannot say who this submission is from. That will come, obviously, later in the week. There was an inspection done of the lead product upon its arrival - not by yourselves but by someone else who is an authoritative body, I might add - which revealed that the small moist balls had degraded during transport such that the product resembled damp concentrate. However, there is little difference between the degraded product and that shown to members during a previous visit to the Magellan mine, which means that while people were saying it was drying out along the way, this was the first train, so this was right at the very beginning. What was happening was they said it was drying out along the way, but that same group that inspected it at the Magellan mine site said it was not much different when it left. So there were obvious difficulties with that agglomeration. So, because people from your authority were inspecting at both ends - they were certainly inspecting the mine and its compliance in the first instance - was it never noticed, the nature of the ore, as it was being shipped out of Magellan Metals?

Mr Taylor: Not to my knowledge.

The ACTING CHAIRMAN: That being the case and the agglomerates did not agglomerate too well and dried out, the reality is that if that company had decided to export this product through Geraldton, we would now be facing the same sorts of problems in Geraldton that we are facing here in Esperance; is that a reasonable assumption?

Mr Taylor: If the material contained a significant amount of dust at the point of loading, and if the loading facilities were not properly managed then, yes, that is likely to have occurred.

Mr McNamara: As I say, that would obviously depend on the Geraldton Port Authority and how they went about the operation.

Dr G.G. JACOBS: Mr Chairman, could we talk about some of the seabed benthic pollution issues?

The ACTING CHAIRMAN: We are not going to get time because we have to wind up here to start our afternoon one. We do have a number of questions on benthic lead levels. For those who do not know what benthic lead levels are, they are in the molluscs on the seabed and the invertebrate organisms on the seabed that consumed lead and that are then subsequently consumed by other organisms, such as fish and so on. One last question relating to the subjects we are doing is from the member for Wanneroo.

[1.00 pm]

Mrs D.J. GUISE: I note that DEC has a pollution response unit and I have noticed in your fact sheets that your testing source for lead is the Esperance town centre, along the rail line, the school ovals etc. Can you explain what this unit's role is in terms of the marine environment of the port? Do you share any responsibility at all with the Department for Planning and Infrastructure marine pollution unit for the port of Esperance; and, if so, can you outline what that relationship is? If not, have you entered into any dialogue or correspondence at all with the marine pollution unit that exists within DPI? If you do share joint responsibility, who takes control? Sorry; there are a number of questions there.

Mr Atkins: Our relationship with the Department for Planning and Infrastructure's marine pollution unit is in respect of marine oil spills only. The pollution response unit of the Department of Environment and Conservation was established to respond to environmental pollution incidents and was being used in this incident in that way to undertake environmental scans and testing as you have described.

Mr M.P. WHITELEY: This is a general question with regard to your ability to inspect elsewhere. Clearly, occupational health and safety concerns restricted your ability to do your job properly at Esperance. How general is that? Where else does that present a problem?

Mr Atkins: We license approximately 860 premises around the state. Many of them are major refineries and large and complex institutions. All those facilities have no-go areas without people having gone through proper training and equipment, and that goes for the employees of the companies that run those facilities. There are restrictions in many premises that we regulate where we cannot go and cannot undertake inspections in treatment vessels, storage facilities and the like.

Mr M.P. WHITELEY: Does it constitute a problem, though? It obviously did in Esperance. Are there other examples that you are aware of?

Mr Taylor: We are not meeting our target timelines for inspection, and we have acknowledged in our submission that we think that even our targets are too great and that we need to carry out more inspections.

Mr M.P. WHITELEY: However, if you cannot inspect, that is the point -

Mr Taylor: Under current resources we cannot.

Mr M.P. WHITELEY: Even if you had more resources, you could not send people to have a look.

Mr Atkins: There are certain types of places within facilities that you cannot go without proper training and proper equipment. With a lot of these industrial processes, you need to have an intimate knowledge of the industrial process, and a regulatory agency like ours will never be able to retain sufficient staff with sufficient expertise to understand all those processes, so you are relying

on the advice and disclosure of the companies that you inspect and you are relying on undertaking sufficient inspection of a premises to determine that it is complying with its licence.

The ACTING CHAIRMAN: Tomorrow we are going to inspect the port. We will be there for just two hours. During that time we will follow all the procedures required to do a proper port inspection, including safety procedures and wearing proper clothes and entering the shed. Frankly, if your inspector could not do that in two hours, he had a problem. Do you want to make a closing statement?

Mr McNamara: I was really going to continue on from the last answer.

The ACTING CHAIRMAN: I do not think that issue needs further coverage. Do you want to make any closing statement?

Mr McNamara: I reiterate that we are here to assist the inquiry through the remainder of its investigations as much as we can and to provide further information as required. We do acknowledge that there are some lessons in this one and some things that we need to rectify. However, the issue is not solely one of the department's performance by a long way.

The ACTING CHAIRMAN: Thank you, gentlemen. There are questions that we have not had an opportunity to ask. We will put those to you in writing. We will also table them so that they will be incorporated in *Hansard*. We ask that you return those to us within two weeks. I make the point again that we may ask you to come back as we develop further questions through our inquiry. 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 these 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 1.05 pm

EDUCATION AND HEALTH STANDING COMMITTEE**QUESTIONS FOR HEARING
MONDAY, 30 APRIL 2007****DEPARTMENT OF ENVIRONMENT AND CONSERVATION****Role**

1. Does DEC ever consult with the Health Department over potential health effects of developments?
2. Does DEC believe that this should be a routine procedure?
3. The *Inquiry into the Bellevue Hazardous Waste Fire Inquiry* of 2002 recommended that the Environmental Impact Assessment process in the *Environmental Protection Act* be expanded to incorporate a health impact assessment where appropriate and involve the Department of Health in this assessment (No 8). Does your Department now involve the Department of Health in appropriate environmental health assessments? Why is there no reference to this in the Act?
4. The Department of Health letter of 21 September 2005 to Ms Catherine MacCullum recommends dust risk assessment amongst other measures. Did anything happen as a result of this letter? Who else received/saw it in DEC?
5. The DEC submission (p.13) states that due to staff changes and departmental rearrangements at the time and a communication failure between regional and central groups, this critical advice (from the Department of Health regarding the type of monitoring required) was not acted upon. What actually happened? Who knew about the Department of Health letter and when?
6. Does DEC believe it bears any responsibility for the lead pollution in Esperance?
7. Is it true that in 2006 there were only five full time audit officers in the Department who monitored approximately 490 projects?
8. Is it true that the Department employs many more officers on the approval processes? Is this because the Department's industry regulation program is funded solely from revenue from fees etc with no separate allocation from Consolidated funds?

Esperance

9. Please provide details for the record of all of the actions of DEC personnel following the death of birds in the Esperance region including all timings of action taken.
 10. After dead birds were received by the Department in early December do you think it is acceptable that they were left in storage for about 2 weeks before being sent for testing as to the cause of death.
 11. Was any advice given by the Port regarding the elevated lead dust recording and if so,
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on what date?

12. What date did the Chemistry Centre find prominent lead levels in the tissues for the dead birds sent to Animal Health Laboratory on 21 December 2006?
13. When were the results of the tissue sampling of the control group of dead birds available?
14. Please briefly outline the results of lead testing.
15. What further testing is intended?
16. Is it true that there a Departmental officer was only recently appointed to the Esperance area?

Other sites

17. Will the Department be testing lead levels in Wiluna and Leonora?
18. What about along the railway track - including Norseman and Kalgoorlie?

Lead poisoning

19. What blood level does the Department regard as acceptable?
20. Is the Department aware of potentially significant health problems, especially to pregnant mothers and children, of marginally elevated blood lead levels?

Pelleted v. agglomerated

21. In the document provided by your Department dated 16/11/04 from Chris Gunby to the Esperance Port Authority it is stated:
Par 1, p1 of 8 that the licence is for "pelleted" lead carbonate – what is meant by pelleted and why has that term been used as it is not in the application?
 22. Are you aware that the application from the Port, and associated media publicity about the proposal, referred to agglomerated lead carbonate?
 23. Does the Department view 'pelleted' as significantly different to agglomerated in this context? Why?
 24. In the letter to Mr M Jeffries of the Department of Environment dated 8 Oct 2004, Magellan Metals state "an additional processing step that has now been included in the flow-sheet is the agglomeration of the concentrate into 10mm granules. The process is simple and will significantly reduce the risk of rogue dust emissions during handling and ship loading." Was that process undertaken?
 25. Given the implied risk of dust emissions in the statement, was agglomeration made a condition of the approval given just 6 weeks later?
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26. We have been told that the process was a failure, with the lead carbonate being more like wet cement. Are you aware of that? Would it be of concern?

Approval and variation of the Magellan project

27. Are you aware that the Magellan operation has been described by the Ivernia CEO, Mr De'ath, as "unique without model anywhere in the world to draw parallels."? Should you be?/What does that mean? Would this impact on the management of an environmental impact assessment? Should it?
28. What is the responsibility of DEC in relation to the transport of hazardous materials such as lead carbonate?
29. Did the Department not have any concerns that the lead carbonate was proposed to be transported in "covered kibbles" and not in sealed containers?
30. Did the Department require any cleaning of the kibbles prior to their returning to the loading facility? If these were not cleaned after being emptied did the Department require them to be covered for the return trip?
31. The Magellan HHEMP states that these will be recovered prior to being sent back - who monitors this?
32. Was there any expectation that a different regulatory regime - such as the Dangerous Good Regulations - would apply to the lead carbonate at the Port? Do you know if lead carbonate classified as a 'dangerous good' under any legislation?
33. Are you aware that the original recommendation for approval of the Magellan project by the EPA was based in part on the assumption that lead carbonate was a 'dangerous good' for the purposes of transport (p.20 & Appendix 3). Is there a process for following up on whether the product is classified as a dangerous good and amending the conditions of approval for the project if it is not?
34. 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 your agency?
35. Are you aware that the refinery is not proceeding as it is now considered by Magellan to not be feasible?
36. Given that Magellan's Health, Hygiene and Environmental Management Program was a significant factor in the EPA's approval of the original proposal and the variation allowing it to export via Esperance, was it satisfactory that the report contains more references to the proposal to transport the lead carbonate by road to Geraldton than it makes specific reference to the Esperance option?
37. Which agency reviewed that report to determine it was satisfactory? It was required to be made public, but of course the public in Esperance, would not have known anything about the process as they had not been included in the preliminary processes associated with public consultation which occurred in Geraldton, five years earlier
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38. Why was the decision to approve the change of the Magellan project so that the lead carbonate was exported through Esperance rather than Geraldton not subject to a public consultation process?

Licence to export lead

39. That document (the Port licence) details dust management plans for iron ore, nickel and lead with no obvious difference between the three. (In fact there is more detail about the management of iron ore than anything else!) What allowance was made in the approval to distinguish between the three given the significant potential health effects of lead?
40. In both the DEC approval for export of lead carbonate for Geraldton and the subsequent change to Esperance, no mention is made of the potential health effects of lead exposure. Why is that?
41. Is it correct that three monthly air monitoring results required to be collected by the Esperance Port Authority under its license are reported to DEC annually?
42. Is it true that air monitoring was done on the basis of readings averaged over a four week period?
43. Is it true that in the past, monitoring results needed to be reported on a six monthly basis? If yes, why was this changed?
44. Why is air monitoring not done on an ongoing basis, or at times to coincide with the unloading of trucks and the loading of ships? For example, we have been told only 22 ships had been loaded with the lead carbonate during the course of this arrangement since 2005; it seems that these events were likely to be the most risky in terms of potential pollution?
45. What responsibility did the Port have to monitor and act on these reports throughout the year?
46. If these record reports do indicate unusually or dangerously high lead levels, would DEC expect the Port to do something other than wait until the annual report to DEC? Is this a term in the Port's licence? Why not?
47. Is DEC aware that the Magellan mine relied on a particularly fine grind of the ore mined to 'liberate the lead'?
48. Should this factor have been relevant to the environmental impact assessment and conditions put in place for the management of the product?
49. 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?
50. 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?
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51. 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?
 52. Would you comment on the proposition that the land based dust monitors used at the Esperance Port are inadequate to monitor the emissions into the environment of Esperance because with strong winds, the fine particulates of lead carbonate can disperse into higher atmospheric layers before descending some kilometres away?
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