PUBLIC HEARING

SYDNEY TAR PONDS AND COKE OVENS SITES

REMEDIATION PROJECT

JOINT REVIEW PANEL

V O L U M E 3

(A F T E R N O O N S E S S I O N)

HELD BEFORE: Ms. Lesley Griffiths, MCIP (Chair)
Mr. William H.R. Charles, QC (Member)
Dr. Louis LaPierre, Ph.D (Member)

PLACE HEARD: Sydney, Nova Scotia

DATE HEARD: Tuesday, May 2, 2006

APPEARANCES: STPA (PANEL):
Mr. Frank Potter
Mr. Gregory Gillis
Mr. Shawn Duncan
Dr. Brian Magee
Mr. Donald Shosky
Mr. Wilfred Kaiser
Dr. John Walker
Dr. Malcolm Stephenson

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I N D E X O F P R O C E E D I N G S

--- Upon commencing at 1:01 p.m.

THE CHAIRPERSON: Well, good afternoon, ladies and gentlemen.

I'd like to get this session started. So, happy budget day.

My name is Leslie Griffiths, I'm chairing the Environmental Assessment Review Panel.

This afternoon, on my right, is Mr. William Charles, who's escaping the breezes from the air conditioning system, and on my left is Dr. Louis LaPierre.

Mr. Potter, I understand that you have spoken with the Secretariat about the number of issues, and, first of all, we asked yesterday if you would be able to return for questions from the panel on Tuesday afternoon, May 16th, at 1 o'clock, and I believe you confirmed that you haven't got anything else on.

MR. POTTER: I have no life, other than this hearing. Thank you.

THE CHAIRPERSON: Also, I understand that today, in order to maximize the time for the questions from the public that you've agreed to defer any of your verbal responses to undertakings in order that we can proceed directly to the questioning.

Is that correct?

MR. POTTER: That's correct.

THE CHAIRPERSON: Do you have any written documents that you want to file at this point?

MR. POTTER: None today, no.

THE CHAIRPERSON: And are there any other very brief points of clarification that you wish to make?

MR. POTTER: Nothing now.

THE CHAIRPERSON: Okay. Thank you.

So, today's session, this afternoon and this evening, has been reserved for questions relating to the Chair's submissions and the EIS from the public.

The purpose of this question is -- questioning is to allow the panel and all of the participants to gather information and to explore issues related to the potential environmental effects of the project.

So, as it has been established in the panel's procedures -- and if you need a copy you can obtain a copy from Ms. Debbie Hendricksen, the Panel Secretariat -- but as it's been laid out in the procedures that questions should be directed through me, the Panel Chair and I, in turn, will then ask the Tar Ponds Agency to respond, and I or my colleagues, on the Panel, may ask for clarification on your question, so that we can understand what it is that -- exactly what

you're asking.

And as the procedures indicate I may limit or exclude questions or comments that fall outside the mandate of the Panel that are repetitive or irrelevant, but I hope I won't have to do that.

I do want to stress that this afternoon and this evening will go better if you can make sure you get to your questions as promptly as possible, and there will be opportunities when you're making presentations or informal opportunities to speak later on in the coming days.

If people do not adhere to these procedures, I do obviously have the ability to and may have to refuse to permit further questioning from that individual, but I'm perfectly confident that that will not be necessary. We've had two great days so far.

Now, I'd like to tell you how we are going to organize the questioning of the Tar Ponds Agency, in order to make this as efficient and equitable as possible.

We're going to set the following order for the questioners.

The federal government departments, provincial government departments, municipal government, organizations and individuals that have registered today

to present information to the Panel, and then I will open up the floor to other members in the audience.

If you are listening to that long list and thinking, "Well, we may never..." -- "I may never get to ask you questions," do not despair because in a moment I'm going to check to see who, out of the -- of those listed categories who is here, who will wish to ask a question, and I think you'll find we have a much shorter list than that would suggest.

What we're going to do is that each party, when it's your turn, you'll have a maximum of 20 minutes to ask questions to the Agency, and once we get to the bottom of the list we will start back to the top of the list with a second round of questioning, and how long you'll get in the second round will depend, obviously, on how many people there are here who wish to ask questions, and we'll try and use the time effectively, and we will have as many rounds of questioning, organized in that manner, as we can fit in before 9 o'clock this evening.

I'm going to ask questioners to take the seats at the witness table, which is over there, and I'm going to ask you to remain seated unless you really need to make use of audio/visual equipment.

For the purposes of transcripts, obviously I'm going to ask you that you identify yourselves, and

that you speak clearly into the microphone. And the microphones have a button that you press and you can see it comes on with a red -- so, what I would like to do is, to start off, is I would like to establish who we have in the room, who wish to ask question, so that I've got my initial roster.

When you've asked your questions, I'd appreciate it if you'd let me know if that's -- if you think you are interested in coming back for the second round, or if you're finished.

And I would also ask that the next group or person who is going to ask the question be ready to sit at the witness table, as promptly as possible.

That way, we should be able to move through this very smoothly.

So, federal government could you indicate to me, please, if you are wishing to ask questions in this round, Public Works and Government Services Canada. I'm sorry. I don't -- really I need is for you, at this stage is to say -- wave if the answer is "yes." No.

Sorry to cut you off, but this will be too slow if I do it any other way.

Environment Canada. Is there anybody here who wishes to ask questions? Yes.

Health Canada. Natural Resources Canada.

Nobody is asking questions from Natural Resources Canada. Fisheries and Oceans. No.

Cape Breton Development Corporation. There's nobody here wishing to ask questions from DEVCO.

Provincial government. Environment and Labour? No. Office of the Medical Officer of Health. No.

Transportation and Public Works. No. Natural Resources. Okay. So, I don't have any questions from the provincial government.

Is there anybody here from CBRN and the municipality, who wishes to ask questions? No.

I'm now going to move to my list of other registered participants. So, the same thing if you can indicate if you wish to ask questions today.

Mr. Donald DeLeski? No. Return to Sender Coalition. No. Cape Breton Save Our Health Care Committee. Yes. Cape Breton District Health Authority. I don't hear anybody. Kipin Industries. I don't hear anybody from Kipin.

Grand Lake Road Residents. Is the answer "yes"? Yes. Cement Association of Canada. Nobody from Cement Association. Portland Cement Association. Nobody. Cape Breton University. Dr. Ron MacCormick. Sydney Academy.

The Cape Breton Chapter of JCI. Sydney and Area Chamber of Commerce. Cape Breton Partnership. ECO Canada. Sierra Club of Canada, yes. Mr. Les Ignasiak, yes.

Now, I have TD Enviro down here. I will need to ask you whether you're questioning as Mr. Les Ignasiak differ from -- significantly from your questioning as TD Enviro. So, one thing. Thank you.

Bennett Environmental. And finally New Waterford and Area Fish and Game Association. Is there anybody here from the Association who wishes to ask questions?

This means that I have highlighted three, four, five, six, seven -- I have highlighted seven organizations who have registered to present and we are taking them first.

If you are not -- you're not on that list and you have questions that you wish to ask, I'm going to ask you to -- you will get your opportunity after we're done this one round, you'll come onto the end of that -- Ms. Debbie Hendricksen, who is standing there, who, I sure, most of you know, if you would approach Debbie, during the next little while, and Debbie will create a list and we will add it onto the end of my list of seven here.

We will do our rounds, 20 minutes, maximum. Don't feel you need to take the whole 20 minutes, but 20 minutes maximum for everybody and then we will be able to start again on the next round.

We will be taking breaks, of course, as we normally do.

And I will find a brief way to remind people when I come back from breaks, if they wish to speak that they should add their name to the Debbie's list.

So, anybody who comes later they will get a chance to do that. I hope that is all clear.

So, this means that our first questions to the Agency that will be placed -- that will be addressed to me, the Panel Chair, will be from the Public Works and Government Services Canada.

And if the person from Environment Canada could be ready and possibly even move up closer to the front, so that you could sit down -- oh, Public Works said, no. Is that right? I'm sorry.

So, Environment Canada and then followed by Health Canada.

MS. MARIA DOBER: Thank you, Madam Chair. My name is Maria Dober, I'm the Acting Regional Director of Environmental Protection Operations in Dartmouth.

I have with me Greg Bickerton and Michael Hingston. Greg is a hydrogeologist and Michael Hingston is our air quality specialist, and they will be asking questions related to their areas of expertise.

SYDNEY TAR PONDS AGENCY

--- QUESTIONED BY ENVIRONMENT CANADA

MS. DOBER: The first question that I have really is that I'm looking for some clarification on the sequence of events related to the construction of the channel, as it's near the mouth of Muggah Creek.

In the EIS the Chair had indicated that there was -- expected to be an increase in flux of contaminated sediments into the south arm, and I'm just wondering how the sequence of events will play out so that we can make a determination what the importance of that will be.

THE CHAIRPERSON: Mr. Potter.

MR. GILLIS: Well, we'll start with Mr. Don Shosky in the construction aspect and then Dr. Stephenson can address the ecological side.

MR. SHOSKY: We're trying to see if we have a good diagram that we can put up, if you'll bear with us for a second.

THE CHAIRPERSON: As a general rule I would much appreciate it if you can start -- I'm sorry,

have someone start on the verbal part of your answer as fast as possible, so that we don't lose too much time.

I understand the difficulties of trying to find stuff at the same time.

MR. SHOSKY: I'll start answering that and maybe the narrative I give will be clear enough.

Basically, we'll start at the headwaters and work our way down, and in the process of doing that we'll put in a number of check dams, in areas where sediments will be excavated. Though water around Muggah Creek will be diverted.

So, there will be a series of pumping and dyking systems installed in such a fashion that there aren't any additional sediments released into that particular waterway.

MR. GILLIS: I'd ask Malcolm Stephenson to talk now about the flux.

DR. STEPHENSON: Yeah, I'd like to provide clarification on the assumption that there would be a five-fold increase in the flux from Muggah Creek to Sydney River during the actual remediation activities, and subsequently a 90 percent reduction following remediation.

Those were assumptions only. We felt that it was reasonable to assume that there could be some

situations that would arise that would lead to an increase in flux, either due to routing operations or due to accidents or malfunctions, and that value of five times is something that our engineers assured us could readily be achieved.

So, that's kind of a worst case scenario, and it's well within the capacity of the remediation measures that are routinely available.

Likewise, the 90 percent reduction was a very -- I guess not much of a stretched target.

The assumption is that the remediation activities will be able to easily better that 90 percent reduction. So, we were trying to be conservative in the sense of being pessimistic about what remediation activities -- sorry, what the mitigation activities could achieve, and not overly optimistic about what the overall remedial activities would achieve in the long term.

MR. GILLIS: Excuse me for a moment, if I may.

Don Shosky would like to make a modification to his first response.

MR. SHOSKY: Perhaps, I'll -- it will be a lot clearer if I can show what we're going to -- what the plan is as we construct this creek. We will actually -- or this channel.

We will actually start on this end of the channel and we would continue to divert water around the areas that we are going to isolate around this, so that the discharge would continue to be the same.

As we clean and restore the channel, we will be moving upgradient towards the interior of the site. I just want to make that clarification.

We will also install some -- the plan is to install some silt curtains and silt barriers at various locations along the workings, as well, in order to eliminate any sediment -- potential sediment problems, and that, in a general sense is how things will work.

So, we'll start at the mouth and work back inland.

THE CHAIRPERSON: Do you have any subsequent questions?

MS. DOBER: I have one follow-up, if I may.

In terms of the excavation and deposition of material back into the north pond, I'm assuming that that takes place as the construction of the channel proceeds, and I'm interested to know how that will be accomplished, as well -- oh, I've just lost my train of thought completely -- the -- there will still be an open channel for tidal action to impact on the Tar Ponds

during the channel construction.

MR. SHOSKY: I'll take a moment and maybe explain in a little bit more detail.

This preliminary work is being completed now. Before any of the other construction of the channel occurs, this preliminary work will be done here.

Then the plan is to drive the sheet pile wall that we discussed yesterday, along this side here, which basically, in effect, isolates sections of the pond.

Then again we would come in and remove these sediments. The plan right now is to side cast that material as it -- as we progress into the interior of the site, inside casting it over the sheet piling wall, in order to take that sediment material and be able to keep it contained within a contained system, so that we don't have any sedimentation escape out into the channel, as we're working.

So, the plan would be to side cast into areas that are contained, allow it to drop out and then pick it up again and treat it as remediation of the interior portions of the north and south ponds occur.

MS. DOBER: That's fine. I'll turn to Greg and Michael. They have a couple of questions.

MR. HINGSTON: Michael Hingston, head of

our Air Issue Section.

In -- and I guess in the points presentation made on April 29th, they did note that sort of all projected emission standards from the project would meet acceptable standards.

They didn't make comment on, sort of, ambient concentrations. In IR-72, accumulative effect, they predicted 24 hour exceedances for naphthalene, benzoate pyrene and total suspended particulate matter.

I wonder if the Chair could comment on the significance of these exceedances.

MR. GILLIS: Could you just give us a moment to make sure we have IR-72 in front of us?

Okay. We're ready now. We'll ask Dr. Magee to address this.

DR. MAGEE: Yes, Mr. Gillis. Thank you very much.

We were asked about the exceedances that we predicted as well as what cumulative effects might occur, because there are a few background exceedances that occur from time to time that we pick up in our monitoring around the Coke Oven and Tar Ponds.

So, IR-72 does have a very complete list of tables where we outline where the exceedances are that have occurred historically, where the predicted

exceedances are, and let me take a parenthetical to say, remember we are doing a risk assessment that's very conservative.

We are assuming that multiple activities are occurring in a single year, so as to not underestimate what could happen, simultaneously, when construction starts, with the worst case meteorology and the worst case location within the surrounding neighbourhoods and so forth.

But under those assumptions, we do predict a few exceedances and as you can see from those tables there is no overlap. It's really fortuitous that the exceedances that occur naturally, which, of course, are very few -- let me cite you a few of the numbers -- in the last three or four years what we have seen is there have been five exceedances of the 24 hour benzoate pyrene criterion, and that has mostly been associated with cold winter days when home heating is at its maximum, and you'd expect emissions from oil and coal fired heating units to produce some benzoate pyrene in the air.

And we've seen, historically, only four exceedances of total suspended particulate.

So, the baseline air quality is very good, compared to all the other major cities in Canada. The air quality is really stellar here in Sydney.

When we predict these worst case exceedances, they are a few. They're in a few locations. They're minor and they do not exceed our project significance levels, nor do they overlap with the baseline.

So, as you can see in those tables there are no cumulative effects in terms of 24 hour exceedances.

MR. HINGSTON: One follow up. When you talk about them not overlapping, is that just sort of adding exceedances or would you take a case, let's say for example, if you had an existing area that was maybe 80 percent of the exceedance naturally and supposedly if the project actually added more emissions which would increase the ambient concentration. And that would push that up to become an exceedance, was that accounted for or did you just add up existing and modelled exceedances?

DR. MAGEE: Well, yes we did take a look at that and we did not see that we were close and might have been taken over the edge. We did not show that in those tables. But we did take a look at that and we did not see that occurring or happening.

MR. BICKERTON: Greg Bickerton, Environment Canada. The question I have relates to IR-53, Item 8 and it's just a matter of clarification.

The Chair has indicated in IR-53 that the estimated rate of groundwater capture by the various groundwater cut off walls and control structures was calculated at 25 litres per minute.

I was just hoping that the Chair could further clarify, confirm and provide some additional detail on how this estimate was obtained and what the particular groundwater control measures that were included in that calculation were, with the understanding of course, that final design details are not available.

Presumably they have some conceptual idea of what the extent of these will be.

MR. GILLIS: Just give us a moment so we can get the IR please and we'll -- I'll ask Don Shosky to answer that question.

MR. SHOSKY: When -- well, first easy question. It's from all of the interceptor systems that are located in the Coke Oven site.

And I think that probably the reason there may have been a bit of a surprise there with the volume of water is because during the course of the last six months we conducted a pump -- a full aqua for a pumping test out there and were able to nail down the hydraulic conductivity values of those hydrogeologic units in a way that they hadn't been defined before.

And the yields of the water was much less than what was originally anticipated. For the benefits of those that may not understand that, there's a number of different ways to test hydraulic conductivity tests.

The most realistic is to actually pump water out of the ground and watch its response time. That's the type of testing that we did. A lot of the other testing was done on a very localized area.

This was a full scale pumping test and the results showed that there was much less water available than what was previously thought to be.

MR. BICKERTON: Just one follow up. Are those results available to us?

MR. SHOSKY: Yes, those results are available.

THE CHAIRPERSON: You mean they're available as in that you will supply them or they're ---

MR. SHOSKY: Yes, they would be available as we can provide them. It's prepared. We can provide that to the panel.

THE CHAIRPERSON: So that's an undertaking? [u]

MR. SHOSKY: Yes.

THE CHAIRPERSON: Thank you. Are there any additional questions.

MS. DOBER: No, that's it. Thank you, Madam Chair.

THE CHAIRPERSON: Thank you very much.

So if Health Canada would like to come forward and after Health Canada our next questioners will be the Cape Breton Save Our Health Care Committee.

MS. CHARD: Good afternoon, Madame Chair. My name is Sharon Chard. I'm the Regional Director for the Healthy Environments and Consumer Safety Branch of Health Canada.

And I have with me today, Nellie Roest who is our Health Canada Regional Health Risk Assessor and Toxicology Specialist. And I'll ask her to pose some questions for clarification to the Chair. Thank you.

--- QUESTIONED BY HEALTH CANADA

MS. ROEST: Hi. It is my understanding that the excavated material from the Tar Ponds which has been referenced to be the size of a soccer field will be placed in a staging area where it will be allowed to dewater naturally.

That is gravity drained for several days without any type of enclosures. How can the Chair ensure that the volatile emissions from this material, that is PCBs, Benzene, Naphthalene will not affect the air quality of the neighbouring communities, and what

monitoring and mitigation measures will be put into place to protect air quality? Thank you.

THE CHAIRPERSON: Thank you. Mr. Potter.

MR. POTTER: One moment please.

MR. GILLIS: The first part of that question will be addressed by Dr. Brian Magee.

DR. MAGEE: Yes, thank you Mr. Gillis.

We certainly were concerned about the emissions that could occur from dewatering and we thought that that might be, in fact, one of the major sources of emissions of volatile constituents. That was one of our key assumptions in the risk assessment.

We used the standard EPA equation from their Superfund series that gives all of the various emission factors that one should use in assessing the types of emissions that could occur when construction and remedial activities take place.

So that's all considered quantitatively in the risk assessment.

MR. GILLIS: I'll ask Don Shosky to comment on control measures and monitoring.

MR. SHOSKY: We certainly wouldn't want to leave you with the misconception that no management of that material would occur while it's gravity draining.

If there are odours or the material

becomes too dry too fast, mitigation would take place where either odour suppressant foam or additives would be placed on the material so that odours would be eliminated, and during the course of this processing there would be air monitoring occurring that would also add as another benefit to this particular approach.

So there are many checks and balances in place that would allow for the safe handling of this material.

THE CHAIRPERSON: Do you have further questions?

MS. CHARD: Yes. I also have a follow-up to that. The air monitoring that you referred to, will that be real time, or will that be the six day monitoring?

MR. GILLIS: That'll be both aspects of monitoring.

MS. ROEST: Health Canada seeks some further clarification on the use of the one hour and the 24 hour health based criteria for Benzene, Naphthalene and Methylnaphthalene.

And these were presented in Table ES-5 of Volume V of the Human Health Risk Assessment for the remediation activities.

Will these numbers be used as emergency or

one-time exposure numbers or are they intended for use for the entire length of the project? Thank you.

MR. GILLIS: I'll ask Dr. Brian Magee to address that, Madame Chair.

DR. MAGEE: Yes, we understand Health Canada's concern in that regard and we'd like to tell you a bit about how that came about.

These numbers were specifically derived at the request of the Medical Officer of Health who wanted to know when we monitor for specific constituents like Benzene and Naphthalene.

Yes, we all know about regulatory criteria that have multiple uncertainty and safety factors in their derivation, and we have to adhere to regulatory criteria. They are on the table already.

He knows about those and he said, "You know it would help me quite a lot if I also had a number that would really make someone sick if we went over it."

So I was specifically requested to derive these numbers that are associated with health effects for his purpose. We then put them in the risk assessment for informational purposes only.

MS. ROEST: So if I understand you correctly, they will not be used as an action level for the ambient air monitoring programs?

DR. MAGEE: That is correct. The particular action criteria that we would use would be derived in a later stage of the project and they'd be derived in consultation with all the relevant agencies, assuming Health Canada, I would presume.

MS. ROEST: The Human Health Risk Assessments indicated there will be health risks for workers at the remediation site if they are not wearing personal protective equipment.

The Chair had recently referenced worker protective equipment as being a hard hat and work boots.

Can the Chair provide detailed clarification if personal protective equipment will include respirators and protective clothing?

MR. GILLIS: I will ask someone from the Sydney Tar Ponds Agency to address this but I can assure that the protective equipment will be appropriate for the task to be undertaken. So ---

MR. POTTER: I guess I can't add too much to that answer.

It's very much based on the activity. I guess the -- a simple answer is not all workers will be simply wearing a hard hat and steel-toed boots. They will be having appropriate PPE, personal protective equipment.

MR. KAISER: I'd like to add to that comment that we would have a master health and safety plan for all activities on the site.

As well, there would be site specific health and safety plans that would need to be adhered to. And as Mr. Potter had said, the level of personal protective equipment would change depending upon the activity.

MS. ROEST: The EIS indicated that the incinerator will run 250 days per year and the Human Health Risk Assessment assumptions were based on the incinerator running 365 days per year, and it was indicated that that's a 40 percent overestimate of human health risk.

Yesterday, however, the Chair stated that the incinerator would run 365 days per year. Can you provide clarification on how many days per year the incinerator is expected to run? Thank you.

MR. GILLIS: Perhaps we can clarify the source of the 365 days just so that we're on the same page, please. The comment from yesterday, I ---

MS. CHARD: Madam Chair, that was a comment, I think, that one of the consultants made during the time of explanation that was ours. So we'd have to go back and actually refer to the transcript which I

don't have a copy of.

MR. GILLIS: Thank you very much. Then I'd ask Don Shosky to clarify that to make sure that we're all on the same level.

MR. SHOSKY: I was the culprit. The -- it's anticipated right now that incinerator -- the actual number of working days will probably be about 240.

There's a certain number of days that it'll be down every year for maintenance and things of that nature without putting out a specific schedule.

They usually run in -- operate five to six days a week with a couple of days off depending on what type of problems they may have. But at this point in time it could be any one of the 365 days of the year. There isn't a schedule that's set for that at this point.

MR. GILLIS: If I may, I'd ask Dr. Magee to comment further on the schedule for operation that was assumed, please.

DR. MAGEE: Thank you very much, Mr. Gillis.

Yes, the number of days is an issue but more importantly the number of years is an issue. Regardless of how many days the incinerator will operate, it is not going to operate for five full years which is what the risk assessment assumed.

So we have adequately overestimated the emissions to a great deal. Again, we assumed 365 for a full five years with the upset conditions on top of it.

MS. CHARD: Thank you, Dr. Magee. That was going to be our follow-up question. So thank you for answering that. Madam Chair, that finishes our questions for today. Thank you.

THE CHAIRPERSON: Thank you very much. So now the Cape Breton Save Our Health Care Committee.

--- QUESTIONED BY CAPE BRETON SAVE OUR HEALTH CARE COMMITTEE

MS. MACLELLAN: Good afternoon. My name is Mary Ruth MacLellan.

I'm Chairperson of the Cape Breton Save Our Health Care Committee. To my right is Dr. Jim Argo. He's -- his specialty is medical geography and we have commissioned him to help us with our presentation.

And he has a number of questions as well as mine so I will try and quickly sum up mine as best I can.

My first question through the Chair is to Sydney Tar Ponds Agency. And it has to deal with when they were founded, what their mandate is, which government department do they fall under. To whom do they report, their number of employees, their annual

budget, what work has been carried out to date?

THE CHAIRPERSON: I think, unless our memory is terrific, we should break those down if I -- would you like to just list the first four of those and then we'll move on to the next four. So they don't have to remember that huge list.

MS. MACLELLAN: Okay. When was the Tar Ponds Agency founded and what was its mandate. And which government department do you fall under, to whom do you report, what is your annual operating budget and what is your number of employees?

MR. GILLIS: I'll ask a representative of Sydney Tar Ponds Agency to recount the history.

MR. POTTER: I think -- well, let's start with, the agency was formed in 2001. I believe September. The mandate is fairly well spelled out in our MOA and I believe that's a document we provided to -- I believe we provided it to the panel previously but just to ---

MR. MACLELLAN: Briefly sum it up.

MR. POTTER: I'm sorry.

MS. MACLELLAN: Could you briefly sum it up.

MR. POTTER: Sure. The mandate of the agency is basically to be the implementing body for

carrying out the project that's been assigned to it. The MOA also addresses the -- besides the scope of work, the funding from the two partners which are Federal Government and the Provincial Government.

The Federal Government's represented by Public Works and Government Services as the lead Federal agency. The lead Provincial agency is Nova Scotia Transportation and Public Works. It identifies the time frame for the project to be carried out over ten years.

Upon completion there would be a 25 year monitoring period, again funded within the overall four hundred million dollars ($400,000,000). Budget figures, I think we've identified in one of our IR responses that there is a portion of the four hundred million dollars ($400,000,000) identified for funding the agency.

The staff complement right now is 18 staff. We're in the process of interviewing I think this week for one additional staff person. We're expecting right now to probably level off at 20.

When the major component of the work gets going which is, I guess, in a year or two, we may have 25 staff. Now my memory's sets off ---

MS. MACLELLAN: I'll move on to the next question, then. What work has been carried out to date and how much money has been spent on each project and

where did this money come from?

MR. POTTER: The MOA identifies what's called preventative works. There's four preventative works activities.

The rerouting of Coke Oven Brook, the remediation of the cooling pond, the Battery Point Barrier, the construction at North Pond and the Victoria Road water main. The Coke Oven Brook realignment was started last year.

Actually it's just started up again today. This is the first day the contractor's back at it. That project will run through the end of this construction season. The other cooling pond project is currently out to tender. The north -- Battery Point Barrier is out for tender.

The actual construction of the Victoria Road water main was funded through the agreement but administered by CBRN because of the nature.

It is essentially moving their water system and they wish to have control over that. So they administered and carried out that project which was done last year and completed. So that's the four preventative works projects.

MS. MACLELLAN: So approximately how much money has been spent to date and which department, or is

this part of the four hundred million dollars ($400,000,000)? Or where did that money come from?

MR. POTTER: I believe I indicated it is part of the four million dollars ($4,000,000). It's identified in the MOA as one of those four activities.

I don't have the exact figure right in front of me at this very moment of what we spent to date but the -- I think we've provided some dollar figures in previous IR's for the amount of those projects.

MS. MACLELLAN: Before this panel is finished could you provide us with the amount of money that has been spent to date? [u]

MR. POTTER: We could provide a simple number at a later date.

MS. MACLELLAN: Thank you.

THE CHAIRPERSON: Thank you. We'll take that as an undertaking.

MS. MACLELLAN: Can you tell me what happened to the leftover money that -- when -- that was there when JAG was dissolved, or can you tell me who could tell me?

MR. POTTER: Could we clarify which money -- the question that we're asking about. I'm not clear on that.

MS. MACLELLAN: There was money set aside

in JAG. Not all of it was used. There was money left when JAG was dissolved. Where did that money revert to? Or if you can't answer that, can you tell me who can?

MR. POTTER: Madam Chair, I'm not sure the relevance of that question to the purpose of what we're here for.

THE CHAIRPERSON: Do you have any comment on the relevance, why you consider that question to be relevant to ---

MS. MACLELLAN: I consider it very relevant. We've been living here for a number of years. We have seen a lot of money wasted, no clean up yet successful and people's health are still affected, and I think it bears a big relevance across this country because it looks bad on Cape Breton when we can't answer where the money was spent.

THE CHAIRPERSON: Well, I accept Mr. Potter's answer that that's not an item that they can answer directly.

So we may need to see if future presenters -- whether there is somebody who might be able to answer that question. Do you have anything to add to that Mr. Potter?

MS. MACLELLAN: I have more questions. Yesterday, they mentioned odours will be present. And

that's one of the sources or one of the problems they will have.

I wonder where -- what the sources of these odours will be. Will they be chemicals? If so, what type? What thought was given to the fact that many chemicals affect people before they are detected by their old factory? That is to say, before anyone can smell them they can harm people.

THE CHAIRPERSON: Could I clarify what the question is that comes from that? What do you want the agency to tell you?

MS. MACLELLAN: I want to know if they have any idea what the source of the odours will be and what -- if it's chemicals, what types of chemicals and if any thought was given to the fact that odours very often harm people before you can detect the odours.

MR. GILLIS: We most certainly considered odours and we considered the health thresholds, both.

So I'll ask Dr. Brian Magee to address this question, please.

DR. MAGEE: Yes, I believe we all know that the odours probably -- many of the odours that have been detected over the years may be associated with the sewage. But that's not what we're talking about in terms of our predictions.

Our predictions are primarily that Naphthalene may be above the odour threshold from time to time for a few minutes here and there.

The odour threshold of most chemicals is far, far lower than the level at which effects can be on human health. And in fact, when odours are detected, it can be because the levels of a chemical lapped over into an area for just a minute or two. You get a sense of it, it's gone.

If you went there and measured all day long, you'd find that the average level over the day was far below the odour threshold. But might someone have smelled it for that minute, of course. And we predict that that will probably happen during the course of the project from time to time.

THE CHAIRPERSON: So just to clarify, the question -- the assumption of the question is that effects occur below the detection by the human nose and you are saying the opposite? Is that correct?

DR. MAGEE: That is correct. The odour threshold is much more -- your nose is much more sensitive to Naphthalene at lower levels. Health effects occur only at much higher levels.

MS. MACLELLAN: But there are other chemicals that cannot be detected in the air that are

harmful. Carbon monoxide is just one example.

DR. MAGEE: Is there a question?

THE CHAIRPERSON: Is there -- yes, is there a question?

MS. MACLELLAN: Yes, I'm asking him if they know if there's any chemicals that will be in the air that when they're dealing with the cleanup, that will affect people that can't be detected by the human nose.

THE CHAIRPERSON: That cannot be detected?

MS. MACLELLAN: Yeah.

DR. MAGEE: The chemicals of concern that we know about in the ponds that we've evaluated do not have that phenomenon. Does that exist for some chemicals? I'm sure it probably does. But for the chemicals of concern that we are aware of that historically have been placed into the Tar Ponds, that is not the case.

DR. ARGO: Madam Chair, may I intrude just briefly in here?

THE CHAIRPERSON: With a question?

DR. ARGO: Well, maybe I can answer -- maybe I can throw a bit of light on this particular question.

THE CHAIRPERSON: Sir, I'd like everything at this stage to be couched in terms of a question.

DR. ARGO: All right. For instance, Benzene has -- the risk -- the concentration which equates to a risk of one in a million in -- for Benzene is -- I'm sorry, let's start off at the beginning and say that Benzene is a carcinogen.

A carcinogen is something which doesn't have a minimum concentration and in the case of Health Canada we insist on a concentration that equates to a risk of one in a million. Because there isn't a minimum that is our minimum acceptable risk.

The concentration of Benzene that can be -- that equates to that is point 96 micrograms per cubic metre in air. The concentration when Benzene can be smelled, is registered by the nasal system, is around about five to six milligrams per cubic metres, about 1,000 times.

THE CHAIRPERSON: So if we're translating this to a question, your question is -- well, perhaps the panel's question is, could you provide us with some kind of a table which relates the -- from your perspective, relates the health risk threshold with the human odour detection threshold?

Now we did have some discussion with -- about this yesterday and you made an undertaking to come back with respect -- that was in terms of smells that

might originate from sewage impacts and sediments.

DR. MAGEE: Well, my colleague here is looking for some tables but if I can just state that Benzene, of course, is one of the major constituents that we have evaluated.

And the risk posed by Benzene is many, many orders of magnitude below the levels that could cause health effects. I believe it may be true and we'll check here that the odour threshold may be above that level. But the level that we're predicting from all of our worse case activities is far, far below both levels.

DR. ARGO: As a carcinogen, Benzene is -- has no minimum concentration and Benzene is a systemic toxicant at any concentration.

MS. MACLELLAN: I'll just sum up ---

THE CHAIRPERSON: You have additional questions?

MS. MACLELLAN: I'll just sum up a couple of more questions. Then I'll turn it over to Dr. Argo. You said that the incinerator -- they said the incinerator that was going to be there was a temporary one. Previously at a coffee party meeting, it was stated by Tar Ponds Agency that the highest temperature to be achieved in the incineration was 1,000 degrees Celsius. Correct?

MR. GILLIS: I certainly can't speak to that. I don't know who was at ---

THE CHAIRPERSON: Would you like to pose your question relating to this subject?

MS. MACLELLAN: Who did the presentation was Mr. Kaiser and Mr. Donham. At that time, I asked the question and they told me it would be 1,000 degrees Celsius. Has that changed?

MR. GILLIS: I'll ask Mr. Kaiser to respond to that.

MR. KAISER: Madam Chair, I'm not certain it's appropriate that I respond to what may or may not have been stated in the past.

But certainly what I could say is that any incinerator that would be brought in and commissioned here to deal with the sediments that we have to deal with would comply with whatever regulatory requirements are posed. And we would certainly seek guidance from the regulators in terms of minimum or maximum temperatures or any other operating parameters.

THE CHAIRPERSON: What is contained in the -- could you remind me what have you, in fact, indicated in EIS as your predicted operating temperatures.

MR. KAISER: We expect that there will be components of the incinerator that will operate at or

around 1,000 degrees Celsius. There are other components that will operate at other temperatures.

MS. MACLELLAN: Is 1,000 degrees the highest temperature it will operate?

THE CHAIRPERSON: I get the sense that you have a string of questions on this. I think it could be quite helpful if you could get to your -- to the -- rather than ---

MS. MACLELLAN: Well, I'm just going to sum up to say that you can't burn PCB's safely at 1,000 degrees Celsius. That's not kosher.

But I'm also going to sum up and turn it over to Dr. Argo now by saying, as I sat through the hearings in the last two days or Saturday and Monday, all I get -- heard from Tar Ponds Agency and their experts were, "We assume so," or "We do not believe." To me this is not reassuring. I am appalled to think that we are paying people to come here when they are not fully prepared to give us the answers.

I have lots of questions but I will turn it over to Dr. Argo because I only have one more question for them. What do I tell my grandchildren when this fails and they have to dig it up again?

THE CHAIRPERSON: Thank you. I just want to note that you have about five minutes left within this

round. And there will be another opportunity.

--- QUESTIONED BY DR. JIM ARGO

DR. ARGO: Thank you, Madam Chair.

My name is Jim Argo. I'm -- work out of Wolf Island in Ontario. I propose medical -- I study medical geography which is the study of how your present day health is affected by where you have lived.

I built a system for Health Canada under the Green Plan that enabled us to study this. Now this is a question to Mr. Potter. I have a whole bunch of questions and perhaps they -- I structured it slightly differently and if it doesn't work out exactly, please tell me that I'm not doing -- tell me and I'll try to make it better.

But this is a question for Mr. Potter who told us yesterday he knows where everything is on the site after all his inspections across the site. So I'm asking Mr. Potter how deep are the infrastructure drains across the Coke Ovens? Where are they, how many do you know of, are they still operating, what are they draining? And a sub-question would be, do you know of anything buried in relatively local locations on the Coke Oven sites, essentially dumps.

THE CHAIRPERSON: Yes, Mr. Potter.

MR. POTTER: Madame Chair, I don't

actually recall that being a statement that I can recall stating yesterday. Now, we can check the transcripts -- it doesn't matter -- but I do recall Mr. Kaiser did speak to the Coke Ovens, I think, at one point, and he'll address that response.

MR. KAISER: Thank you. Yes, we did speak previously about infrastructure, buried infrastructure at the site. We know that after many many many years of industrial activity on the Coke Ovens site, there is a lot of buried infrastructure on that site. There are a lot of drains. Some of them are relatively deep. They of course drain many things. They have been determined to be located through site assessment and characterization work that we have conducted in the past. We have used geophysical as well as actual test pitting and other means to determine where particular infrastructure is located. And we do know both anecdotally as well as through some of our site characterization work that there are buried both facilities and contaminants on the site.

DR. ARGO: Thank you, Mr. Kaiser. May I have a follow-up? The proposal -- I've looked through the entire EIS and I can find no indication that there is -- that you are intending to remove those drains. All I can see is that there are two drains, one coming from the

Ashby side and one coming from the Whitney Pier side toward -- and I'm wondering if you are -- it sounds to me like you're intending to leave them there. And if you're going to leave them there, will they not provide a pathway at the very least for anything that has -- that escapes and gets around all of your collecting systems?

MR. KAISER: The approach is two-fold. The work that Mr. Potter mentioned just earlier that the Coke Oven Brook Realignment Project has restarted today. The Coke Oven Brook Realignment Project is -- it's being conducted so that we can pick up the flows from both the Ashby side and the Whitney Pier side, take that water before it enters the site, and divert it around the site. In conjunction with that, the barrier walls that we spent some time discussing yesterday in conjunction with the pump-and-treat system will pick up any -- any flows that would emanate from the existing infrastructure on the site, collect that entry to appropriate levels prior to discharge.

THE CHAIRPERSON: I'm afraid the 20 minutes of the first round is up, but I will ask a question of clarification there following on Dr. Argo's question. So what you're saying is those items will not necessarily be removed but your approach is to divert the ground water away from that infrastructure.

MR. KAISER: It's, I guess, a little bit less than simple. Predominantly the infrastructure will not be removed, but as we conduct some of our activities on the site and encounter some infrastructure, that infrastructure would be removed.

THE CHAIRPERSON: I'd like to thank you very much for your questions, and if you've got more questions relating to that topic, if you can hold onto them and come back. And I thank you very much. Our next questioner is the Grand Lake Road residents.

--- QUESTIONED BY GRAND LAKE ROAD RESIDENTS

MR. MARMON: Good afternoon, Madame Chair. My name is Ron Marmon, and I have with me Henry Lelandais, and we are representatives of the Grand Lake Road Residents.

Yesterday one of the questions Dr. Charles asked was about the site location in response to why VJ scored higher than Phalen, and I believe Mr. Duncan replied that the cumulative affects of choosing the Phalen site over VJ site would be higher. In a previous reply to PC05-2, it is stated:

"From a cumulative air quality affects perspective, the VJ site therefore may seem less suitable than the Phalen site. However, this larger scale issue must take

into consideration that the transport between the VJ site and the Tar Ponds and Coke Ovens sites would be more efficient due to the shorter distance. This is considered to compensate for any potential higher cumulative affects that might be experienced around the VJ site."

And my question is what else can we expect to accumulate travelling a few more kilometres to another site. I assume that no material would be following along the transport route, so isn't the cumulative affects of air pollution the most important item to be addressed?

MR. GILLIS: I'll ask Mr. Duncan to speak to this in a moment, but the key -- the key thing about the siting exercise, the siting exercise is a preliminary exercise. The site underwent -- both sites underwent a full health risk assessment, and that's really the focus point of the exercise. So I'll ask Mr. Duncan to comment.

MR. DUNCAN: Thank you, Mr. Gillis. The discussion yesterday Mr. Charles posed was in relation to cumulative affects associated between the operation either on VJ and Phalen as it relates to the on-site activities in terms of overlaps. What we found and what the response was trying to portray was the fact that

there would be a perception that because the site of VJ is closer to the on-site facilities and the on-site activities, that there would be a perceived overlap and a perceived increase in cumulative affects, but when in reality we have -- when we have looked at those type of things from a quantitative perspective, there is no overlap from an air emissions perspective between the on-site activities that are taking place as well as the incinerator operations at both sites.

MR. MARMON: So in other words, you're saying that both sites are suitable from an air quality point of view?

MR. DUNCAN: We've evaluated both sites, both from air quality modelling as well as Human Health Risk Assessment and Ecological Risk Assessment. Both sites are acceptable from that perspective.

MR. MARMON: Okay. I do understand that there was a process involved in choosing the sites, but at the first meeting where we were asked to look at a report and the different site locations and what criteria were used to establish which was the most preferential site -- at that first meeting, we pointed out that there were several items that we didn't agree with in the site location criteria, that we felt that Grand Lake should not have been the preferred site because there are

several items there that we questioned. And this is no way to indicate that the community of Grand Lake would like to see this incinerator in their area or anyone else's area. We just want some clarification on how we were -- the neighbourhood that was beside the pond would entertain this incinerator. But on the site location itself, there was a question asked yesterday on the Phalen site -- and again I believe it was Mr. Duncan that replied -- and the question was whether there would be any problem with underground shafts, and Mr. Duncan replied that there could be a problem at the Phalen site. But I believe this item was addressed in Appendix "B", page 9 of the December of 2004 AMEC project description, and were talking about Tab 2-3, and that is the Level 2 Potential Candidate Site Evaluation Table. And there is a criteria item No. 2, Section "J", that describes areas above an active or inactive shaft or a tunnelled mine or other areas of potential substance. And in this area, Phalen scores a four, which is listed as moderate potential. Is there any new information that would cause this area to be a problem now and score higher in that regard?

MR. GILLIS: If you'd just give us a moment to look that particular reference up, we can get right back to you.

MR. MARMON: Okay.

MR. DUNCAN: Yes, thank you. There was a reference to some screening criteria that were used as a potential restriction or limitation about siting these facilities in relation to underground infrastructure as it relates primarily to mining infrastructure. That was one of the screening criteria that we evaluated all the sites against.

Phalen, there was some potential there. Again, this was at a desktop preliminary screening level, and one of the things we would need to do at any of the sites that are chosen is to do a full geo-technical evaluation of the site prior to installation of an operating mobile incinerator facility.

So that would be one of the things that we would need to look at prior to commissioning an incinerator at a facility to ensure that the geo-technical aspects associated with any potential underground infrastructure are fully evaluated.

MR. MARMON: Keeping in mind that a lot of the pits in the Cape Breton area are bootleg pits that DEVCO has no knowledge of, will there be any testing done at the VJ site to determine if there has been any activity in that area on an illegal basis, because I understand there was a coal seam in that area that was

hit when the former DEVCO operation dug across the road to the Lingan area to install a settling pond.

MR. DUNCAN: Yes. We just -- I'll confirm, Mr. Potter, as you're more aware than I am, there are no -- there was no commercial mining of coal at the VJ site, but as you pointed out, there is always a potential for some of these coal seams to have undergone some bootleg mining or excavation activities. Certainly at the VJ site, it's fairly well documented and has been evaluated from a baseline perspective by both Public Works and Devco.

The site we're evaluating or is currently being considered for the siting -- the specific siting of the incinerator is an area that has, as you're aware, those large asphalt pads and has -- had got some infrastructure associated with drainage control. But as I indicated, prior to -- even on this site, prior to commissioning an operating a facility there, there would have to be some additional baseline geo-technical information gathered just to ensure that the situation that you've described for bootlegging of small coal seams does not occur or would not impact the operation of the facility.

MR. MARMON: You mentioned infrastructure relating to water control in that area, I believe. You

just mentioned that just now.

MR. DUNCAN: Yes, I did.

MR. MARMON: As I understand it, Devco had very severe flooding problems in that area. Isn't one of the criteria for setting up an incinerator that the site be not in an area that has flooding problems?

MR. DUNCAN: Flooding situations are -- there's two issues that relate to criteria associated with the siting of any infrastructure. One is how does it relate to the natural environment, what potential materials could be washed into adjacent water courses, wetlands. The second one is one the specific operation of the facility as well -- how would that interfere with the operation.

The site at Victoria Junction was evaluated. There was a flood study conducted. We looked at elevations for that site. We looked at potential flooding based on 100-year storm events, and found that the areas that we're considering for siting an incinerator are well outside those areas where flooding has historically occurred or could potentially occur.

MR. MARMON: Do you have a history of the problems with beavers damming the brook in that area and the total area flooding? Was that mentioned to you at all?

MR. DUNCAN: Sorry, I'm going to have to get you to repeat your question. Mr. Gillis was talking in my ear.

MR. MARMON: Oh okay, I'm sorry. Are you aware of the history of that area of flooding because of the problems with beavers damming the brook in that specific area and what problems were associated with that in the past?

MR. DUNCAN: We have anecdotal information about potential impacts to water courses related to beaver activity and potential flooding scenarios, yes.

MR. MARMON: So you are aware there was a flooding because of beaver dams in the area.

MR. DUNCAN: Yes, I am.

MR. MARMON: Okay. I have one more question before I turn it over to Mr. Lelandais. Yesterday it was mentioned that there were no plans to test the fly ash before shipping back to the Tar Ponds site by truck. Isn't it true that ash from a PCB incinerator is considered toxic, and before it can be transported on public highways, it would have to be analyzed before a permit could be issued? Also, would each ash load contain the same type of heavy metals or would each load have to be analyzed?

It seems to me that if all your containers

are going back to -- that you've hauled the material to the site with for incineration are going back to the Tar Ponds site empty, why would you not just put your ash in one of those containers and send it back? Why do you have to truck it?

MR. GILLIS: I'd ask Don Shosky to answer this question, please.

MR. SHOSKY: The material that you're talking about is the fly ash from the air pollution control equipment, the bag house. Correct?

MR. MARMON: Correct.

MR. SHOSKY: And it's understood that the bottom ash that showed up in different responses is really the clean-treated soil. The fly ash material should be approximately one percent of the volume of material generated, so it's a very small volume. Because of the way that the air emission control equipment works, there is a final heating process before it goes into the bag house, which destroys the PCBs that would have made it to the bag house. It is true that one can speculate that there may be heavy metals there. The PCBs should not be an issue but that will be tested for. The metals themselves would need to be confirmed as to what the actual concentrations of those metals are and would be looked at prior to disposal. But the key criteria for

disposal back into the Tar Ponds is the concentrations of PCBs.

MR. MARMON: But we are concerned with the heavy metals that could be in that fly ash which must also be considered as toxic. And you're saying it will be tested before it is introduced back into the Tar Ponds site, but it will not be tested before it's -- before it's transported on a public highway?

MR. SHOSKY: Well the testing process would mean that we would test it before it went on the highway. And if it turned out to be within the guidelines of Canada for special placarding or handling, it would have to be handled that way.

MR. MARMON: I'll turn it over to Henry now.

MR. LELANDAIS: Good afternoon, Madame Chair. My name is Henry Lelandais. I'm a retired metallurgist with Sydney Steel and the former metallurgical consultant. Most of the questions have been answered during the earlier part of the afternoon that I had in mind. As we will be making a presentation ourselves on the -- next Monday, I believe, several of the questions will -- I'll put them off until that time.

At present, I just have two main questions to carry on with what Ron started with here. One is on

the site location. It states in the category "B" of the Level 1 Site Selection Criteria that the water sheds and water supply areas will not be considered as a site, and therefore, the VJ site, I contend should be eliminated on those grounds, since it is positioned actually within the provincial drainage basin listed as IF-19 in part of the Bridgeport Basin water shed.

Can I get an answer from the Chair's as to how come the site was selected anyway after having due notice that it is a watershed area and using the watershed as a criteria for eliminating a site?

MR. GILLIS: Thank you. If you could just give us a moment to find that specific reference, we'd appreciate it.

MR. LELANDAIS: Section 5.6.2 on page SAR-580 under the Surface Water Resources, Section 3(g).

MR. DUNCAN: Madame Chair, my apologies, I was looking at the wrong document. I wonder if I could just have the page reference again. I suspect that we're referring to the EIS.

MR. LELANDAIS: The Level White Site Section Criteria. It's listed here as Category 3(b), and Section 5.6.2, 5.6.2 on page 580 under Surface Water Resources. Section 3(g) refers to where the surface does not have suitable characteristics. Table 2.1 might be

another reference there.

MR. DUNCAN: I have five -- page 580 here that speaks to the environmental setting related to the project and project-related boundaries, and there are -- this is a reference to the surface water resources as described for the general area. And I'm having -- I'm having trouble, I guess, remembering the specific question you had about that reference.

MR. LELANDAIS: The question is that why was the site selected for the incineration in spite of the fact that it is considered a watershed -- part of the Bridgeport Basin watershed, and its position within the provincial drainage basin area listed as IFJ-9 in the -- part of the Bridgeport Basin watershed destinations, when your -- your criteria for selecting sites specified that watersheds will not be considered.

THE CHAIRPERSON: Just for my purposes, this -- you're saying that the VJ site falls within the watershed of a public water supply?

MR. LELANDAIS: Of the Bridgeport Basin drainage area in general. It's listed as a watershed and ---

THE CHAIRPERSON: As a watershed that is a public water supply?

MR. LELANDAIS: Well, Kilkenny Lake is a

public -- part of the public water supply of New Waterford, and it is within a close proximity to the VJ site.

THE CHAIRPERSON: Um-hmm. Thank you.

MR. DUNCAN: Yes. As you indicated, most rivers, lakes and everything are -- do -- are part of the watershed. One of the criteria that we evaluated the very -- the multiple candidate sites against was are these protected watersheds, are there restrictions in terms of development around these watersheds.

We obtained information for the Department of Environment and Labour, from the provincial agencies, related to protections of watersheds, and there are -- there are specific watersheds that have buffer zones around them that do provide specific setback distances for development or any type of facility. We used that as part of our selection for candidate sites for the incinerator site. Victoria Junction was -- the site there was outside any of those protection measures dictated by the Province of Nova Scotia.

MR. LELANDAIS: Thank you. My other question refers to the criteria choices of incinerator sites again. And where you state that a site must not have -- or must not have a residence located within 500 metres of the property boundary, I assume that it's the

boundary of the property, not necessary the center location of the incinerator proper. But that is not too important. My main concern here is that the CCME Guidelines guaranteed the community during the JAG deliberations that no homes should be within 1,500 metres of the incineration facility, which is a thousand metres different to what the criteria that you are using. How can you reconcile the fact that you're going contrary to the CCME Guidelines guaranteeing that distance from a residence?

MR. GILLIS: CCME siting criteria are high-level siting criteria and they are protective in the event that you don't have a whole lot of information. So they're highly protective of the situation. In the application of the CCME criteria and the CCME approach to the siting criteria, you can look down and continue to do more extensive investigations as you increase the level of information that you have, and that's why, for example, the Human Health Assessment was conducted for the appropriate sites that we identified as possible here. And the Human Health Assessment indicated that the work that would be conducted in the incinerator location and the operation was indeed health protective and met all the requirements to show that it was health protective.

MR. LELANDAIS: I don't feel that answers my question. My question was that the CCME Guidelines guaranteed the community that no homes would be within the 1,500 metres of the incineration facility. Now, the present site location shows in the Victoria Junction. There's 17 homes that are within the 15,000 metres, plus a dairy farm that's about 500 metres away, and I just can't reconcile the fact that you're going against your own criteria by selecting that site.

THE CHAIRPERSON: That is the end of the 20 minutes. I'm just going to finish off with a -- for my own purposes -- a question of clarification relating to what you're asking, and you're welcome to come back for a second round. You may wish to pick up on this.

But the clarification is was there at some point some indication to the community that the CCME Guidelines would in fact be used?

MR. GILLIS: I'll ask Mr. Potter to address that.

MR. POTTER: Thank you, Madame Chair. We were going to address that point. I believe Mr. -- the witness indicated that there was a prior commitment through the JAG process to follow this 1,500-metre criteria. I can say with great certainty that we repeatedly indicated that with the construction or

placement and installation of the incinerator, the Chair, STPA, would follow all applicable guidelines that the regulators required us to follow. We do not feel that guideline necessarily does apply to this situation at hand with our situation, our project, but we did commit to following all the requirements that the regulators would require us to follow with the construction and installation of that facility.

THE CHAIRPERSON: But the Agency did -- it was a JAG recommendation the Agency did follow through with -- agreed with following the CCME approach to the remediation of the contaminated sites, a phased approach. So the CCME siting guidelines didn't come along with that package approach of dealing with this problem?

MR. POTTER: That's correct. We committed to the CCME approach for the remediation. The CCME document in question was a 1992 document which is currently under review by Environment Canada. Our commitment again is that we will -- at the time of the necessary permitting stage, we will follow all the necessary regulatory requirements that the regulators place upon us. We don't feel that one at this present time is applicable. We have not committed to it. The commitment we have is that we will follow all the necessary regulations and stipulations that the

regulators place on us at the time of the permitting for the facility.

THE CHAIRPERSON: Thank you very much, Mr. Marmon and Mr. Lelandais. Is it -- do you think you're going to wish to come back for a second round of questions?

MR. LELANDAIS: I think the more questions we ask, the more questions we have. So yes, we probably will be back for another round of questions.

THE CHAIRPERSON: I take that as a yes. I'm going to ask Sierra Club to come forward, and after their 20 minutes, we will take a break.

--- SIERRA CLUB OF CANADA

MS. MAY: Good afternoon. My name is Elizabeth May. I'm here on behalf of Sierra Club of Canada and our local Cape Breton group. I'd like to start by thanking the Panel for being here collectively and personally and for your diligence and concern and commitment to a full and impartial review of this project. As you can see, it's not going to be easy.

I would start with a couple of questions that follow up from yesterday. And the first question is a follow-up from your question, Madame Chair, you had put to the Panel. I believe you asked about the Goose Bay incinerator, and I don't believe I heard an answer. And

I believe you put to the STPA Panel, relating to the Goose Bay incinerator, "Was that a successful operation?" I don't think we got an answer. You can decide you don't care about the answer, but I'm still interested.

MR. GILLIS: I don't recall we supplied an answer to that question. I think we took an undertaking that we would look up performance of some additional information, as I recall.

THE CHAIRPERSON: Now, you've stumped me there. I can't remember, but we will check and find out. Yes, I'm getting a nob that that was an undertaking.

MS. MAY: So can we just clarify that undertaking, because as my notes recorded it, the undertaking wasn't specific to the characterization of Goose Bay as a successful operation. If that can be part of the undertaking, then we're fine.

Yesterday there was a question ---

MR. GILLIS: Excuse me, if I may. We'll get the information related to the operation at Goose Bay. And I think that was the undertaking. Is that right? Okay.

THE CHAIRPERSON: You're saying that that is going to be -- you're going to take that. Whether -- I don't have the original undertaking in front of me, but whether or not it's there, you will undertake to provide

information about the performance of the Goose Bay incinerator?

MR. GILLIS: We will. I guess my concern here is the adjudication -- the use of the term, "successful," and it's -- we'll bring back the information as best we can.

THE CHAIRPERSON: Yes. Thank you.

MS. MAY: I was -- I'm grateful, Madame Chair, that -- I think from my notes, that was how you put the question, but it moved on, and I think the undertaking related to a subsequent question. But as long as we're aware of that, we can look for it in the undertaking.

A second question relates to -- and this is a question to Dr. Magee if he's ready for -- I want to follow up on one that Dean Charles -- I'm sorry, Mr. Charles put to Dr. Magee on the Health Risk Assessment and looking at the question of the modelling in the risk assessment of the toddler, the fisher toddler, the farmer toddler, and I believe the premise to Mr. Charles' question was that the community -- this is a community with health problems. The question as my notes reflected it was would that protect adults with health problems. And the response I have recorded is from Dr. Magee, "Yes, absolutely." So my question is, through the Chair, can

you describe how the risk assessment modelled for adults with various illnesses and which illnesses were included in that modelling.

MR. GILLIS: I'd ask Dr. Magee to address the issue. As I understand it, you're talking -- you're asking about the sensitivity to modelling with respect to conditions of disease and the recipients. Is that correct?

MS. MAY: I think it was clear. The question was put to Dr. Magee yesterday from Panel Member Mr. Charles whether the risk assessment included community health problems. And the quote was, "Would that protect adults with health problems?" Dr. Magee's response was, quote, "Yes, absolutely." I would like to have some information on what diseases were modelled and how that risk assessment modelling of vulnerable adults who already are suffering from disease -- how that was undertaken and if it's publicly available.

MR. GILLIS: Thank you very much. I'll ask Dr. Magee to answer that.

DR. MAGEE: Yes, thank you. First of all, I'd like to clarify that I personally am not aware that there are vulnerable adults that are any more vulnerable in this community than any other. I will take that as a premise, but I cannot testify to that being the case or

not. But what is certainly true is that in the conduct of Human Health Risk Assessment, the regulatory agencies that present to us the guidance that we must follow and that present to us the toxicological reference values that we must follow are always mindful that their goal is not to protect an average person in good health, 40 years old, who eats a good diet and doesn't smoke. The entire set of rules and regulations that we operate under assumes that we have to protect the most sensitive individual.

So for instance, when the toxicological reference value for cancer effects is defined, the government agencies look at all the papers, both human and animal-oriented studies, they take the study that gives the answer, the response at the lowest possible dose, they then take that, model it assuming that there is a straight line linearity at high dose to low dose, i.e., they assume that there is no protective effect at low doses, that there's a risk even at the lowest possible dose of one atom or one molecule, they then construct a dose response curve, and they don't even stop there. Then they take the upper 95th confidence interval on the data and present that number to us. So that number is so protective that it is designed to protect the most sensitive individual in any population. That's

for cancer.

For non-cancer, they take all the studies, find the study that has the effect at the lowest possible dose, they say that is the effect level, then they divide by 10 and say, "Let's be more protective. Let's get to a no-effect level." Then they divide by 10 to say maybe the animals are less sensitive than average humans, and then they divide by 10 another time to say maybe there are people in the population that are more sensitive than an average human.

So the entire process is designed from the get-go to be protective of people who are vulnerable, who have kidney disease, who are elderly, they're on medications, what have you, following the government procedures. And that's how they design the risk assessment process.

MS. MAY: In other words, this was a standard risk assessment. There were no special additional parameters for people with illness within this community. I'm just checking.

DR. MAGEE: It was standard in the regard that I just presented, and it was nonstandard in that we over-estimated the exposures by a considerable degree. As we've talked about already, we assumed that the incinerator would operate for 365 days a year for five

years. That's about double what it's really going to operate. We assumed that people live in the most highly affected location and they eat -- I just calculated this. The toddler in the community eats six percent of their body weight every day from food grown at a location that is the most high-affected location. The adult doesn't eat quite that much, but they eat one percent of their total body weight every day from food that we are pretending they grow at that location -- all of their beef, all of their dairy, all of their pork, all of their eggs. If that is not conservative, I don't know what is, Madame Chair.

MS. MAY: Thank you. Following up on a question yesterday in response to Mr. Charles, Mr. Gillis described the evaluation of the Phalen Mine as, quote, unquote, "pretty stringent." At page 577 of Volume 1, the EIS states that there was little to no hydrology undertaken at the Phalen Mine by way of studies. I'm wonder if subsequent to the EIS report, there was more work done on hydro-geology at Phalen Mine. And if so, if it could be publicly available.

MR. GILLIS: We did not collect any additional information at the Phalen Mine site.

MS. MAY: I'll repress the -- I will repress the second question about how you understand the

term, "stringent," but I'll go on to Question 4. In response to a question from Mr. LaPierre about the treated water released, that it would meet criteria, I believe from the Department of Fisheries and Oceans -- Madame Chair, if you could ask them to confirm which DFO criteria are being used, if it relates to acute lethality or to some other indicator for relief to aquatic ecosystems.

MR. GILLIS: Could you please clarify the question for us? Thank you.

MS. MAY: Yesterday one of your witnesses -- and I'm afraid in the back from where I'm able to plug in my laptop, I'm not sure which one -- responding to Mr. LaPierre from the Panel, confirmed that any treated water released would meet Fisheries criteria. I would like to pursue which DFO Fisheries criteria you are referring to and if they are the DFO criteria that relate to avoiding acute lethality or to some other action level.

DR. STEPHENSON: Sorry for the break there. I guess the first criterion certainly is the Fisheries Act, which deals with non-lethality, but the project also references CCME Guidelines and values -- SSTL values, which is site specific threshold limits, that were calculated to be protective of fish and fish habitat through the JDAC evaluation of Coke Ovens Brook

and the Coke Ovens site in about 2002. So some combination of those. Clearly anytime you operate a facility like a water treatment plant, it goes through a licensing process, and in that process, with the regulators, you establish the specific targets that will be required -- that the plant will be required to meet. Given the level of development of the project right now, we know that treating this water is technically feasible. Questions of the specific targets that the treatment plant will have to meet would be essentially a matter for licensing with the provincial and federal authorities at the time.

MS. MAY: Thank you. Yesterday -- and moving on to another point -- Dr. Magee said that worst case scenarios were used in assessing the circumstances for all the risk assessments. And the question is that in the EIS, the remediation of the tar cell within the Coke Ovens was assumed for purposes of the risk assessment to be within a fully enclosed structure with negative pressure to contain any volatile emissions. I would like to ask if they also ran a risk assessment on remediation of the tar cell that proceeded without any structure or based on real life here in Sydney where the structure and air system that failed, as in the experience with the attempted clean-up of the Domtar

tank.

MR. GILLIS: I'll ask Dr. Magee to answer that question, please.

DR. MAGEE: When we started the risk assessment process, we asked about what the various elements of the project were, and we were told very early in the process that the agency had made a commitment to construct an enclosed structure with an air pollution control system. I was told that that system would operate at 99 percent efficiency at removing volatile components from the air, but I chose to take a health protective assumption and assumed slightly less efficiency, and therefore the 90 percent was set by me. So we can -- we can ask the engineers whether they're going to in fact get 99 percent efficiency or not, but 90 certainly is fairly easy to achieve. Thank you very much.

MR. GILLIS: I would ask Frank Potter to comment on the experience of the Domtar tank.

MR. POTTER: Yes. I just wanted to indicate that the Domtar tank was successfully completed and removed. It was not attempted. Thank you.

MS. MAY: In the Domtar tank experience, perhaps now that we're onto that, perhaps the Panel might be interested to know what happened with exceedances with

the failure to replace the charcoal filters at the enclosed structure and the exceedances of naphthalene that were experienced in the community.

MR. POTTER: There were a number of shutdowns on the Domtar tank. As per our protocol and as our procedures had outlined, there were criteria we had to meet. There was an instance when the charcoal became expended and had to be replaced or replenished. The project was shut down, the charcoal was replaced. There was some upgrading of some exhaust fans at the same time, and the project proceeded to completion.

THE CHAIRPERSON: For my clarification, this is -- this is a system of enclosures that is similar to the one proposed for the tar cell?

MR. POTTER: That's a good question. The tar cell is simply an excavation activity. The Domtar tank had coal tar material in it. The nature of the material was that it sat there since -- I think somewhere in the mid to late '50s -- and had to be heated significantly to get it mobile so that it could be trucked away. The heating of the coal tar in that tank generated, of course, a higher level of emissions that we would ever expect for the -- a simple excavation of the tar cell area. So it's a dramatically different situation.

MS. MAY: Could I ask your question again, Madame Chair? Will the structures be similar between the two operations?

MR. POTTER: I'll refer that to Mr. Shosky.

MR. SHOSKY: I've been involved with over 10 enclosed structure excavation works across North America, including sensitive areas like downtown Santa Barbara, and properly maintained, those systems work extremely well. I'm not privy to all the information that happened at the Domtar tank, but properly monitored and if the proper calculations are done as far as when to change out carbon, those sorts of incidents should not occur.

In addition to that, there's typically enough monitoring going on to identify any problem well before it would become an issue with the community.

MS. MAY: Moving along -- I agree with you, people in Santa Barbara are terribly sensitive, but we'll move on to the next question, which relates to one the Chair put.

There is an undertaking on this, but if I could just get a sense of it, it's relating to the questions yesterday -- and I'm going to ask a slightly different one -- I don't believe it's covered by the

undertaking -- if it is, then we can move on -- about what you are actually removing in terms of PCB contaminated material.

We have Figure 2.2-3 of the Environment Impact Statement. With two specific areas that are being removed, we know that some level of PCBs will remain.

And my question is how confident are you that all the PCB areas exceeding 50 parts per million have been identified and are within the two sections that you have shaded as being targeted for removal to the incinerator.

MR. GILLIS: We've provided an information -- in a response to an information request we've provided this information. If you'll just give us a moment, we'll look it up.

THE CHAIRPERSON: That would be IR-12, is that right?

MR. GILLIS: This was the IR that we were referring to when we undertook to provide additional information, so I just want to be clear on that, so ---

MS. MAY: Perhaps you misunderstood my question then.

How confident are you that you have identified all the PCB areas exceeding 50 parts per million, that they have been identified and are within

the areas you plan to excavate?

I don't really think it is but I'll -- if the Panel believes it is, I'll put it aside.

THE CHAIRPERSON: Well, I believe that there were additional areas over 50 parts per million that are not within the two main areas, and that information is included in that IR-12.

Your question about how confident, that -- I think we could still get a response to that.

MS. MAY: Right.

THE CHAIRPERSON: Maybe you need to have another look at IR-12 and if there's anything that has not been answered ---

MS. MAY: Okay.

THE CHAIRPERSON: But in terms of the confidence question, how confident are you that you have identified all the areas exceeding 50 parts per million?

MR. POTTER: The Tar Ponds have been extensively sampled and we're very confident we know all the locations for the PCB levels in the ponds. And as you indicate, IR-12 does respond to the question.

MS. MAY: Okay. Moving on to some questions relating to the Coke Ovens site.

On the first day, on Saturday I believe, Mr. Potter stated that on the municipal land use planning

process, "We are currently engaged with the Municipality in some initial discussions on not just our property but the neighbouring properties alongside of us about potential ideas the Municipality has for land use, for future land use."

The question is, are you -- does this -- this inference, this means you're not following JDAC recommendations, and I wonder if you can provide the Panel with your rationale for not following the JDAC recommendations on this point.

THE CHAIRPERSON: Could you clarify for me the JDAC recommendations?

MS. MAY: I will if I can speak to my expert who wrote this question. Be right back.

Madam Chair, with your permission, I'd like to come back to that. We're pulling it up on a laptop. We're quite far from plugs at this table, so we have a little separation anxiety. I'll have it in a moment.

Moving to a question that was originally put to the Chair in the deficiency statement, we have a number of questions that we -- for which we did not feel we had a response. We have searched for them. If they're there and we missed them, I apologize.

One question was we would request a

breakdown of funds received for the production of this Environmental Impact Statement. We don't believe we have that anywhere. Extended by the collectivity of consultants who have produced the Environmental Impact Statement, what was the total cost?

MR. POTTER: I'd seek clarification from the Chair on the relevancy of that question to the assessment.

THE CHAIRPERSON: You're asking for the total amount spent on the environmental assessment to date?

MS. MAY: Yes.

THE CHAIRPERSON: And you're ---

MS. MAY: And I'm happy to explain the relevance.

THE CHAIRPERSON: Yes, please do.

MS. MAY: Mr. Potter opened this up by having explained yesterday that in terms of looking at these technologies it was important to look at all kinds of other costs that weren't just the technology. So, as we look at costs, I'd like to know about this one. It's part of the whole package of costs of the project and it's not broken down for the public at all.

THE CHAIRPERSON: Do you have an objection or a reason why you are not prepared to provide the total

cost spent on the environmental assessment, especially as it -- in terms of it is one component and you are undertaking to provide us with a better breakdown of the project costs, I believe?

MR. POTTER: We will come back with some -- a better breakdown on the project costs, but I fail to see the relevancy of the breakdown between our various consulting team costs.

THE CHAIRPERSON: I wasn't -- I didn't believe that that was the request. I believe the request is simply the total amount spent on the environmental assessment. Is that ---

MS. MAY: I'd be very satisfied with that answer, Madam Chair.

THE CHAIRPERSON: Yes, I believe that's reasonably relevant to what we're talking about.

MS. MAY: Returning to the earlier question, I'm sorry about the delay in pulling it up on the laptop here, but it was JDAC Recommendation, Phase 3 ---

MR. GILLIS: Excuse me.

MS. MAY: I'm sorry?

MR. GILLIS: We may have an answer to that question here if you'd just give us a moment.

MS. MAY: Oh?

MR. GILLIS: The first one that -- this is the one relating to the one associated with cost of the overall environmental assessment. Is that ---

THE CHAIRPERSON: You think you can provide it now? That, in fact, will conclude your 20 minutes.

MS. MAY: I'll be back.

THE CHAIRPERSON: Or has already concluded. I imagine you will be, yes, but ---

MR. POTTER: The IR did answer that question previously, IR ---

THE CHAIRPERSON: 1?

MR. POTTER: --- 1, and it was $5 million for the assessment process.

THE CHAIRPERSON: Okay. Well, thank you very much.

MS. MAY: Thank you.

THE CHAIRPERSON: Thank you. And we are now going to take -- it is now 10 to 3:00, or almost 10 to 3:00. We will return at 10 past 3:00, a 20-minute break. So, thank you very much.

(25-MINUTE BREAK)

THE CHAIRPERSON: We're going to restart this session. Please take your seats.

Before I ask our next questioner to come

to the table -- or he's very welcome to come to the table anyway, it's Mr. Ignasiak from TD Enviro -- I wanted to indicate to anybody who has arrived after the session began at 1 o'clock, we have a very -- we have an organized system of questioning and we're doing it in rounds.

If you are interested in asking questions of the Chair, I would -- and you have not already done so, I would ask that you speak with Debbie Hendricksen, who is standing on my left, and she will add your name to the list and we will call upon you.

I have four additional names that I will be calling on after Mr. Ignasiak, and as you know, you have a 20-minute time period to ask your questions and we're going to try and fit in as many rounds as we can before 9 o'clock. So, Mr. Ignasiak?

--- QUESTIONED BY MR. LES IGNASIAK

MR. IGNASIAK: Good afternoon. Thank you very much. I would like to tell you at the beginning that my interest in Tar Ponds, particularly in Tar Ponds, goes back to 1987. Also, I've been -- I have an experience of about 45 years working on R&D of fossil fuels, general science and technology of fossil fuels.

I worked also for a number of United States agencies including the United States Department of

Energy, and I also had an opportunity to work as the research director for the United States Electric Power Research Institute on characterization of the MGP sites in the United States and also within this program -- and that was an eight-year program -- within this program we were working actually on developing methods for reclamation or remediation of those sites.

So, I think I can start now with questions which I will direct to the Panel, and I will start with very basic questions. If the Panel will allow me later on to repeat this round, I will go to more advanced questions.

Before I start those basic questions, I would like to refer to Elizabeth and to information that she received about the cost of the environmental assessment.

THE CHAIRPERSON: Mr. Ignasiak, I would ask you to move directly to your questions, if that's possible.

MR. IGNASIAK: Very good.

THE CHAIRPERSON: If you have statements and information you want to share with us, you will be making a presentation and we'd be very pleased to hear about it at that time.

MR. IGNASIAK: Okay. Thank you very much.

I will move straight to questions. There was -- actually on last Saturday and yesterday there were questions asked by Dr. Charles regarding the in-situ moisture content for the sediment.

If my memory doesn't fail -- and generally it's quite good -- Saturday the answer was 20 to 30 percent and yesterday it was from 30 to about 52 percent. Is that correct?

MR. GILLIS: We'd like to check the reference that you've quoted there, sir, if you could give us the reference. Is it in the transcript, is it in one of the presentations or ---

MR. IGNASIAK: Sir, I'm depending on my memory that Mr. Shosky last Saturday mentioned that the in-place moisture content is 20 to 30 percent, Dr. Charles repeated this question, I believe, again and yesterday he got an answer that it is somewhere between 30 to 52 percent.

THE CHAIRPERSON: And your question would be, which is it?

MR. IGNASIAK: My point is that essentially if you really want to get Dr. Charles numbers on the subject you really have to go back significantly to 1996 and the report ---

MR. SHOSKY: Madam Chairman, may I answer

that I think what his question was originally, which was the moisture content ---

THE CHAIRPERSON: Well, I would like to know what the question is. Your question is that you would like clarity on what the moisture content is?

MR. IGNASIAK: Yes, that's correct.

THE CHAIRPERSON: Yes, please, Mr. Shosky.

MR. SHOSKY: Thank you, Madam Chair. We have a couple of sets of data. The information that we collected ranged from 20 to 30 percent and there was some additional data provided by other people at various times in assessments that have taken the moisture content up as high as 40 percent.

So, there is a variation in moisture content from 20 to approximately 40 percent -- or, I'm sorry, 50 percent.

MR. IGNASIAK: Can I respond to that?

THE CHAIRPERSON: With a question of clarification or with ---

MR. IGNASIAK: With clarification.

THE CHAIRPERSON: --- your next question?

MR. IGNASIAK: With clarification, Madam.

THE CHAIRPERSON: I must clarify that today we are seeking questions from the public and not statements and not elaborations.

MR. IGNASIAK: Okay. Thank you very much. My next question is also on moisture content but on moisture content and on air-dried basis.

I believe that for any project for any remediation approach, and specifically here when we are taking about solidification/stabilization I think we should really have some information on air-dried moisture content.

I wonder whether the Chair could provide me with moisture average or perhaps a range of moisture content for the sediment.

THE CHAIRPERSON: At which stage in the process?

MR. IGNASIAK: Air-dried. It means a sediment which is exposed to air for a period of time to remove the moisture from the sediment, which is the primary objective of this ---

THE CHAIRPERSON: So, this would be before transportation to the ---

MR. IGNASIAK: That is correct, yes.

THE CHAIRPERSON: Yes.

MR. GILLIS: So, I'd ask Mr. Shosky to answer this with respect to the moisture content prior to transportation following demoisturization.

MR. SHOSKY: Apparently there's still some

misunderstandings on exactly what process we're following here.

I believe over the last three days I've said that material would first be gravity drained and then further dried using treated soil from the incineration process for the material that would go back up for incineration.

That criteria that needs to be met with moisture content is what we referred to over the last few days as the feed stock criteria for efficiently burning within the thermal unit.

On the stabilization front, the cement does take a bit of moisture, there will be gravity draining of water in the in-situ areas where the excavations will occur with stabilization, allowing that material to be of a higher moisture content when we add the cement for it to cure into the monolith.

THE CHAIRPERSON: Mr. Ignasiak, have you ---

MR. IGNASIAK: Well, I think my question was very simple. What is roughly the moisture content of the material that is excavated and deposited on the floor of the pond?

MR. SHOSKY: Again, we gave a range of between 20 and 50 percent from the testing data that we

have. That's the in-place moisture content when samples were collected for various analysis with the -- for the thermal characteristics for the thermal plant and also for the stabilization.

I'm not sure exactly what the doctor is getting at and I would like some clarification on the question.

THE CHAIRPERSON: I would just like to point out to any of you who sat there to ask questions for 20 minutes, you know that 20 minutes goes by rather fast, so I just would encourage a style of questioning that moves as rapidly as possible to the nub of the inquiry that you wish to make, because unfortunately you don't have unlimited time to make a very slow progression of step-wise questions.

That may be not what you're doing, Mr. Ignasiak.

MR. IGNASIAK: Thank you, Madam Chair. I think I will not ask more questions on the subject of moisture content. However ---

MR. SHOSKY: Madam Chair, could I just interrupt on an administrative matter for a moment.

I've noticed that the witness stand or table is leaving the mike on during the questioning, and I'm not sure if you pick it up but when two mikes are on

at the same time the sound goes a little funny.

MR. IGNASIAK: I'm sorry, I forgot to shut it off. I'm sorry.

MR. SHOSKY: So, if you'd all just try to turn the mikes off.

THE CHAIRPERSON: We're probably all somewhat guilty of doing that from time to time. I am probably doing it as well. All right, we'll try and keep one mike on.

MR. IGNASIAK: Can I go to the next question?

THE CHAIRPERSON: Please do.

MR. IGNASIAK: Obviously, the moisture content is causing a lot of problems, so we can drop it and we'll be talking about from now on, for me to prepare next question, on a dry basis composition.

Could I have from the Chair some rough content of the components of the sediment in percent, weight percent?

MR. GILLIS: You say that you want a breakdown of the components of the sediments on a dry weight percentage, is that correct?

MR. IGNASIAK: That's correct, yes.

MR. GILLIS: Could you provide us with a list of categorization? My experience with soil

geochemistry indicates that there's a variety of ways to break down soil properties and I'd like to make sure that we come close to addressing your question.

So, if you could give us the sort of parameters that you're looking for with respect to the various elements, we will certainly endeavour to respond.

MR. IGNASIAK: Thank you very much. I will try, actually, to simplify this thing. Could you give me weight percent of all organic components versus non-organic components?

THE CHAIRPERSON: Is that a question that you are able to answer here or do you wish to undertake to provide it?

MR. GILLIS: Well, Madam Chair, I've just been handed a chemical analysis breakdown by various components. I'm not sure that these are the elements that the gentleman is looking for, because it ranges from things down to heavy metals through organic compounds.

I believe -- and I don't want to put words in his mouth -- I believe he's interested more in the engineering aspect of the components and I'd have to refer to Don Shosky to speak to this.

MR. SHOSKY: Again, there's quite a bit of confusion posed by the questioner on this particular issue. I don't think the issue is very clear at all, and

I'm not sure what scientific basis it pertains to what we're doing.

But having said that, I am willing to go through our existing data once I have a very clear understanding of what the question is that we're responding to, and I would be happy to take it as an undertaking to provide the information if we have it.

THE CHAIRPERSON: Mr. Ignasiak, can you explain why is it that you require this information?

MR. IGNASIAK: I think this is incredibly important for a process like stabilization/solidification and I understand that perhaps the team doesn't have this information right now. I am happy to provide this information in order to ask the next question. Is that okay?

THE CHAIRPERSON: You're happy to provide which information, I'm sorry?

MR. IGNASIAK: The information that I asked for. I have this information at hand, and in order to ask the next question I would probably have to provide the team with this answer.

THE CHAIRPERSON: You have the information that you are asking for?

MR. IGNASIAK: Yes.

THE CHAIRPERSON: Well, by all means share

it with us.

MR. IGNASIAK: Yes. The information is quite striking, as a matter of fact.

In terms of weight percent, essentially the organic components account for almost 60 percent versus 40 percent for the mineral components. But really if you look at the solidification/stabilization process, you should not really look at weight percent, you should look at volume percent.

And I would like to bring to the attention of the Panel and also to the attention of the Chair that this is particularly true in case if you want to solidify this material, because what you want to do ---

THE CHAIRPERSON: I'm just ask you -- I'm sorry, Mr. Ignasiak, I must ask you to now move to your next question. You have stated what you believe to be ---

MR. IGNASIAK: Okay.

THE CHAIRPERSON: --- the breakdown of organic and inorganic. And your next question is?

MR. IGNASIAK: My next question is, what would be roughly the volume percent of organic components versus inorganic components in this sediment?

MR. SHOSKY: Again, Madam Chair, we have -- you know, I'm very familiar with a lot of different

environmental processes. I'm not sure how he's taken the data and analyzed it in his own way, and I'm pleased to hear him out on this but I'm having difficulty following him.

If this, again, is information that he has, it may go faster if he just presents it.

THE CHAIRPERSON: Well, is this information that you have? But, in fact, we're mostly interested in the questions that you ask and the information that you elicit from the Chair at this stage. I'm very happy to listen to your own information when you're making your presentation.

Now, time is kind of moving along.

MR. IGNASIAK: Yes. Regardless of how you calculate the volume percent, you will end up roughly with about 60 percent of the organic components by volume versus 40. This is the average volume percent.

My question is, how we are going to encapsulate this 60 into this 40 percent in a solid sort of a form? Is that possible?

MR. SHOSKY: Over the last several days we've gone over the stabilization process for a number of times, I think I fielded most of the questions for our side on that particular issue, and we've also done field testing analysis on it.

My own experience with tar-like material in a variety of different environments indicates to me that I don't see anything here, in my professional opinion, that could not be stabilized using the processes that we are recommending now.

THE CHAIRPERSON: Mr. Ignasiak, your question is referring to the organic content and the success of solidification of materials where you believe that the organic content is high?

MR. IGNASIAK: Correct.

THE CHAIRPERSON: Yes. Do you have another question for the Chair?

MR. IGNASIAK: I hope that I stated quite clearly that the volume percent of the organic content of sediment is about 60 percent and the volume of the inorganic content of the sediment, including the cement and the slab(?) added, is about 40 percent.

My question was simple, how you can encapsulate 60 percent by volume in 40 percent by volume? If there is no answer at this point, I would be happy to move to the next question.

THE CHAIRPERSON: Does the Chair have anything further to add with respect to Mr. Ignasiak's question?

MR. SHOSKY: We're not sure right now

where he's getting that information from, and I answered that question a moment ago explaining that we have -- I personally have stabilized a lot of tar material that has high concentrations of pure organic material and inorganic material with cement at manufactured gas plant sites, and again our testing has shown that that's an acceptable technology for this location.

THE CHAIRPERSON: Mr. Ignasiak, are you ---

MR. IGNASIAK: I would abandon under the circumstances this line of questions and I would go specifically now to those MGP sites which are presented by the Chair in response to the Panel's questions, and I am referring specifically to IR-42.

MR. GILLIS: Could you give us a moment to open that IR response up, please. Thank you.

THE CHAIRPERSON: Have you got that IR? Mr. Ignasiak, you have two minutes left on this round. You are welcome to come back, but two minutes ---

MR. IGNASIAK: Madam Chair, perhaps in order to explore what I intended to explore right now, I will perhaps stop at this point and come back in the next round, if you don't mind.

THE CHAIRPERSON: That is probably a good way to do it.

MR. IGNASIAK: Thank you very much.

THE CHAIRPERSON: So, thank you very much.

MR. IGNASIAK: Thank you.

THE CHAIRPERSON: The next questioner I now have on my list is Eric Brophy, and after Mr. Brophy I have Duff Harper, if he wishes to -- so he'll be ready to take the -- take a seat after Mr. Brophy. If you'd just press your ---

--- QUESTIONED BY MR. ERIC BROPHY

MR. BROPHY: Good afternoon, Madam Chair and Panel Members. My question is one of clarification.

The EIS Guidelines, Article 9, Bullet 4, "Human Health," what it directs the Chair to do is:

> "Assess health of residents of the areas affected by the project, employ appropriate qualitative and quantitative indicators regarding elements of health that may be affected by the project, to create baseline data."

And I emphasize "to create baseline data."

I posed that question to the Agency in a written submission. I asked, "Has this guideline been complied with?", and their response was:

> "Yes. The EIS contains two

comprehensive human health risk assessments that quantitatively estimate the cancer and non-cancer risks posed by the execution of the proposed multi-year cleanup project."

I would like to refer to the ATSDR Public Health Assessment Guidance Manual. I suggest they are the leaders in the field of doing health assessments as they work their way through the superfund states in the -- sites in the United States. They make a definite distinction between risk assessments and health assessments.

On page 2-5 of that Guidance Manual it defines -- and they are lengthy but I'll go into a bit of it -- risk assessment.

THE CHAIRPERSON: Excuse me. May I interrupt, Mr. Brophy. So, as fast as you can get to your question that would be very helpful, because this is a period -- today is set aside for questioning rather than presentations.

MR. BROPHY: I understand that, Madam Chair, and I understand I have 20 minutes to do this.

THE CHAIRPERSON: You have 20 minutes, but I'm just encouraging you to get to the question.

MR. BROPHY: I will do.

"A risk assessment is defined as a qualitative and quantitative process conducted by EPA to characterize the nature and magnitude of risk to public health from exposure to hazardous substances, pollutants or contaminants released from specific sites. Risk assessments include the following components; hazard identification, dose response assessment, exposure assessment and risk characterizations."

That's a risk assessment. Health assessment. As defined in ATSDR:

"Health assessments are based on environmental characterization, information, community health concerns and health outcome data. Because of the nature of these databases, health assessments use quantitative as well as qualitative data, focus on medical, public health and toxicologic perspectives associated with exposure to a site. The health assessment specifically

addresses community health concerns, e.g. sensitive populations, possible disease outcomes, and evaluates relevant community-specific health outcome data."

That is the short definitions. Again, I refer you to the guidelines which states they are to do an assessment to create a baseline data.

I don't believe, in my humble opinion, that a health risk assessment is specific to that guideline. I think what they are asking for is a public health assessment as the Agency, ATSDR, does in the United States, and that is a very comprehensive process of putting together that health assessment. I would like some clarification.

Have they complied with that guideline by doing two risk assessments?

MR. GILLIS: I'll ask Dr. Magee to speak to that, please.

DR. MAGEE: Thank you very much, Mr. Gillis. Yes, I'm aware of the distinction in the ATSDR guidance between a risk assessment and a public health assessment.

We are here today to evaluate the human health and environmental effects of a proposed project.

It hasn't happened yet. It's something that may or will occur in the future.

The gentleman is correct in describing the elements of a public health assessment, but one cannot do a public health assessment of a project that hasn't happened yet. All you can do before the fact to get information about whether a project may proceed without affecting human health is to do a human health risk assessment.

So, the gentleman is correct, we've done a human health risk assessment and not a public health assessment, but all you can do at this stage in the project is to do the former and not the latter.

THE CHAIRPERSON: Mr. Brophy?

MR. BROPHY: I don't necessarily agree with that, Madam Chair. You can do a public health assessment. I was a member of JAG's Health Studies Working Group. We were working towards that end when we were pushed aside in favour of the CLC committee.

That process was delayed throughout the life of JAG. Health Canada, in their wisdom, decided that we would not follow the Agency, ATSDR's, public health guidance. What they were doing was putting together what they referred to as the "Sydney Model" that would be used across this country for future sites.

That fell in limbo. Maybe Health Canada can answer as to what became of that and what became of the health assessment that this community was promised. And, again, I emphasize the purpose of that guideline was to create baseline data. You need that baseline data ---

THE CHAIRPERSON: Mr. Brophy, I'm going to -- I'm afraid I'm going to have to interrupt. I'm going to ask if you have any additional questions. The information you're providing us, the Panel definitely would like to hear it, but this is not the day in which we hear it.

Do you have any -- and I know you are going to be presenting to us. Do you have another question for the Chair or a question of clarification around Dr. Magee's response?

MR. BROPHY: I do, Madam Chair. Do you not need baseline data in order to determine whether what you are doing on the site is creating the health risks that he so willing talks about?

THE CHAIRPERSON: And I would like to add a question of clarification for my own purposes. I don't know whether I was following everything in the initial question.

The public health assessment, Dr. Magee, you're suggesting that's something that takes place after

a project is in place? Is it not -- so it's not equivalent to a baseline health status assessment?

MR. DUNCAN: Just for clarification, Mr. Brophy was wondering about environmental baseline associated with human health. Section 5.9.6 of the EIS does describe existing environmental conditions associated with the community health and it's got a number of parameters that are described there associated with community health.

Mr. Magee can talk specifically about inputs to the risk assessment in terms of baseline that was considered for the risk assessment work which he described earlier, and I'd ask him to do that or answer specifically the chairperson's question.

DR. MAGEE: Yes, thank you, Mr. Duncan.

THE CHAIRPERSON: While answering my question, would -- if you could start with that, please, and Mr. Brophy's question was the requirement -- what kind of requirement for baseline health assessments is required. Is that right, Mr. Brophy?

MR. BROPHY: That's affirmative. It's my contention you need the baseline data, that's the starting point for -- to determine whether people's health is being affected throughout the cleanup.

THE CHAIRPERSON: Thank you. Dr. Magee?

DR. MAGEE: Yes, thank you very much, Madam Chair. The terms "public health assessment" and "human health risk assessment" certainly do have different meanings.

If we were in a town that had, let's say, an operating plant -- you know, let's say it's a coke oven, it's operating -- one could come in and say, "That coke oven is operating today, let's do a public health assessment." That's assessing the impacts of the situation that is at hand causing potential emissions.

We don't have that for this situation. We are here in this situation to evaluate the health impacts of a proposed project. In that instance one does not do a public health assessment, one does a human health risk assessment which evaluates what the incremental risk would be to human health associated with the proposed activities.

Risk assessment done north and south of the border by provinces, states and federal governments always is an incremental risk assessment.

Now, the EIS, however, does go further. My human health risk assessment stops with incremental estimates of risk over and above the baseline. So, when we talk of cancer risk, for instance, that's the excess lifetime cancer risk associated with the proposed

activities.

Everyone knows that regardless of which community you go to there is a baseline level of human health impacts going on from whatever sources. Risk assessment is always done to assess the increment that is laid on top of that.

Now, we did have a mandate to talk about baseline conditions. As Mr. Duncan has indicated, that information is in that particular section of the EIS. We also have gone further and in our health risk assessment defined, for instance, what the baseline level of cancer risk is in the communities and then estimated the increment and said, could you detect that increment.

And my calculations which you can see in the latter sections of the human health risk assessment are that the estimated increment to the cancer rate is less than one additional case. As a matter of fact, it's like something on the order of .0001 case over the entire course of the project.

So, whether the baseline is high, low or medium, the project itself will not cause an increase in cancer rates that one could detect. It simply is so low, it's lower than one additional case over a lifetime.

THE CHAIRPERSON: Thank you, Dr. Magee. Mr. Brophy, do you have additional questions at this

time?

MR. BROPHY: No further questions, Madam Chair, but I leave it to the Panel's judgment whether the answers provided actually do answer to that requirement of the guideline, and I thank you very much.

THE CHAIRPERSON: Thank you, Mr. Brophy. Mr. Harper?

--- QUESTIONED BY MR. DUFFERIN HARPER

MR. HARPER: Thank you, Madam Chair. I should identify for everyone that I am a lawyer representing certain area residents next to the Tar Ponds/Coke Ovens Sites. In that regard I have four issues I'd like to address.

Madam Chair, you had raised questions the other day with respect to the issue associated with who's responsible for the long-term liability associated with the site, and my first question is, who is responsible or liable for long-term monitoring of the off-site contaminants after the 25-year period as set out in the MOU?

MR. POTTER: I guess I'll have to refer back to the MOA and the mandate provided to the Agency. Our mandate is to manage and remediate the site that is defined in the MOA, which includes the parameters or the site limits that are identified.

We -- if I'm understanding the question, we are not monitoring any off-site impacts because we've not identified any off-site impacts that we're addressing with our project.

MR. HARPER: Well, as a follow-up question then, as I understood Madam Chair's questions they dealt with concern over the integrity of the cap, for example, and what would happen if the integrity was somewhat compromised in the future.

My question then would be, what protective measures will be in place in the event that the cap integrity is somehow affected in the future and/or there are a determination that there is off-site contamination that is occurring from that property, or from those properties?

MR. POTTER: On the first question, the MOA identifies that the long-term care, maintenance and monitoring responsibility rests with the Province.

Currently the Sydney Tar Ponds Agency has a mandate -- our mandate right now is to essentially take us to the end of the first 10 years to complete the remediation portion.

The long-term monitoring and maintenance would, in all likelihood, fall with the Province and remain there with probably some other agency or existing

government department.

The question about any off-site impacts that may arise, if I've got that correct, is addressed in the MOA, that if for some reason there is an unexpected or unforeseen event, where that circumstance would arise -- and I want to make it clear that, you know, the design that we've put in place, the procedures, the cleanup, the environmental engineering containment system, is all done on the basis that we'll be controlling all of the contaminants on our site and we do not expect that.

As I say, in the MOA there are -- there is a clause that does allow for the fact that if something unexpected were to show up and were determined to be coming from our site, there is a clause to address that and it would reflect back on the parties to go back and the two funding parties to address.

MR. HARPER: By way of clarification as to what you just stated, Mr. Potter, I think you said long-range maintenance in all likelihood would fall within the ambit of the province after 10 years.

Is it the Sydney Tar Ponds Agency, is that going to be the agency that will be responsible for monitoring for the 25-year period after the operation, or will it be the province?

MR. POTTER: The Sydney Tar Ponds Agency

is a special operating agency under the provincial government infrastructure. We are a provincial agency.

Currently our mandate is essentially to take us out to the first 10-year-period during the remediation. The agency may remain. The agency may roll into an existing government department.

That responsibility may just simply be taken over by a government department. I can't speculate in what will happen, but it all will remain within the provincial responsibility.

MR. HARPER: So, at this point, is the Sydney Tar Ponds Agency able to advise what entity or, more particularly, what department within the province will be responsible for the ongoing monitoring and maintenance of this project after the 10-year operation phases?

MR. POTTER: I think we should just assume, for the purposes of the review, that the agency will remain. There's -- it could change, but for all intents and purposes the Sydney Tar Ponds Agency will be the ones responsible until that gets changed.

MR. HARPER: Madam Chair asked various questions about whether or not the site was, in essence, a walkaway site, I think that term was used, and her concern was what would happen at the end of the 25-year

period and whether or not there was the potential for the structures that were in place to break down.

My question is, are there, or will there be, any additional monetary safeguards, i.e. bonds, reclamation bond, something like that, in place to cover ongoing maintenance costs or remediation costs of the structure should it break down in the future?

MR. POTTER: Could you define "future"?

MR. HARPER: After 10 years.

MR. POTTER: The MOA speaks to the 10-year period for the remediation and the 25-year maintenance and monitoring period.

MR. HARPER: Okay, then let's go after the 25-year period as set out in the memorandum, would there be any funds set aside for the potential breakdown of the system after that date?

MR. POTTER: Our response yesterday was that the best avenue for pursuing that would be with the Nova Scotia Department of Transportation and Public Works who are appearing, I believe, on Friday, and will be addressing, I would suspect, that question.

MR. HARPER: Madam Chair, the next -- another issue I would like to address, in response to, I believe it was, Health Canada's question this morning, Mr. Gillis indicated that some of the sample analysis

that was going to be taken, with respect to the air monitoring of activities on the Tar Ponds sites and the Coke Ovens sites, I believe he said included both real-time sampling and sampling over a longer period of time.

My question is, in response to the panel's submission or IR-11, the Sydney Tar Ponds Agency had indicated they will publish air-monitoring data within 24 hours of receiving it, and if that's the case, and yet there is real-time monitoring going on, why is not the data or why it is not the intent of the Sydney Tar Ponds Agency to publish the data immediately upon receipt, and why would they wait 24 hours before making it public?

MR. GILLIS: Could you give us a moment to get IR-11, please. I'm going to get Mr. Kaiser to address that question.

MR. KAISER: Thank you.

The 24-hour period is typically used for date validation. In other words, before we publish data, and this is pretty standard, we would want to ensure that the data has been validated and is correct before we send it out for public distribution.

MR. HARPER: Well then could you then explain to me what kind of data evaluation -- what the process is to evaluate data based on real-time monitoring?

MR. KAISER: The process would differ, depending on the type of instrument being used to collect the real-time data.

As well, there are steps that are needed to both record and provide the data in a format where it can be made publicly available, and for that reason, as the data is moved through the chain, it must be validated or ensure that it is correct before it goes for wide distribution.

THE CHAIRPERSON: If I can just interject with a question here, Mr. Kaiser, can you remind me, has the panel been provided, and we probably have, with information that explains exactly which parameters can undergo real-time monitoring and which can't? That must be somewhere in the EIS. Is it in the air quality monitoring information you provided to us? It's not a trick question, I genuinely can't remember.

MR. KAISER: At present, I can't recall if we have adequately covered the process in its entirety in the submissions that we've made to the panel to date, but what I can do is I can explain, if you would like, a typical process that's followed when we undertake any construction activity on the site.

THE CHAIRPERSON: No, that wasn't really what I wanted at this point, though. Maybe Mr. Harper

wants that but I just wondered if there was a list of air quality parameters that you will be monitoring, or which ones can be monitored, by means of real-time monitoring, that was all, and I thought you may have already given that to us. And if you haven't, then I'd be happy to receive that later.

MR. KAISER: I'll certainly have to get back to you as, depending again on the activity we are undertaking, those parameters will change slightly. So it's not always the same parameter that we would monitor.

THE CHAIRPERSON: No, I can appreciate that. I was just interested in which ones can be monitored in real time.

I have been told that I have not been clear in acknowledging exactly when undertakings are -- need to go into the record, so it's been hard for the people doing the transcript. So I guess that is that you are -- this is an undertaking and that you will provide us with a list of the air quality parameters that can be monitored in real time.

MR. KAISER: Certainly, we will do that.

THE CHAIRPERSON: Mr. Harper, sorry, I took some of your time. I'll give some of it back to you.

MR. HARPER: That's fine, Madam Chair. As

a follow-up to that request, for those parameters that will be monitored in real time, I would ask that there be an explanation of what the validation process will be, and why it will take 24 hours for those results to be made available to the public.

MR. KAISER: We'll be happy to do that.

THE CHAIRPERSON: So we'll add that to the original undertaking, make that one undertaking. So which parameters can be monitored with real time and what your rationale is with respect to the time you will need before you release that to the public, and whether there is any of that monitoring that, in fact, could be made available immediately.[u]

MR. KAISER: Certainly.

MR. HARPER: Thank you.

I want to move to the PCB contamination in the Tar Ponds. In response to, I believe it's, IR-12, the Chair indicated that the most thorough assessment of the PCBs was contained in the Jacques Whitford 1996 report. And I think Mr. Potter went on to indicate that he was very confident that the agency knew all of the PCB levels throughout the ponds.

I reviewed that 1996 Jacques Whitford report, and, from what I can gather, there are at least five bore holes with levels of PCBs greater than 50 ppm

at the greatest depth measured at the bore hole, and I've identified the actual bore hole numbers in an Information Request that I put forward in writing. And I would submit that the Jacques Whitford 1996 report has no analysis of the PCBs below those specific bore holes in which there was identified PCBs greater than 50 ppm.

And my question, then, assuming my premise is correct and I can explain where that came from, is, I put it to the Tar Ponds Agency that it is possible that the PCBs in the Tar Ponds have been underestimated.

THE CHAIRPERSON: The Public -- your Public Comment, Mr. Harper, did you give us a number? Do you know the number?

MR. HARPER: I'm sorry, it was Public Comment 35.

THE CHAIRPERSON: Thank you.

MR. HARPER: The specific reference to the bore holes was identified in issue 3, and the bore hole numbers were 7833, 7839, AB70, AB71 and AC09. All of those bore holes had the highest PCB -- sorry, had PCB concentrations that exceeded 50 mgs at this deepest depth, three of which the highest PCB concentrations were at the deepest location. There was no further sampling below that.

So thus my question, which is, is it

possible that the PCBs in the Tar Ponds have been underestimated?

MR. GILLIS: I'd ask Mr. Kaiser to answer that question, please.

MR. KAISER: Thank you, Mr. Gillis.

The discussion is or the points raised, I guess, to a certain degree become moot because our approach here will be to remove areas where the PCBs are located, and we will do that by going right to till, and we will, in that manner, remove all of the sediments that contain PCB, even if there is a situation where there are PCB concentrations below the depth to which the testing bore hole was drilled.

MR. HARPER: Madam Chair, I thought there was -- at least 11 percent of the PCB contaminant in sediments greater than 50 percent were not going to be removed, so I take issue with Mr. Kaiser's explanation, and I would ask him again to answer the question.

Whether it's moot or not, the question was is it possible that PCB concentrations in the Tar Ponds have been underestimated.

MR. KAISER: Just to correct my earlier statement, I guess I did respond from the perspective of removal and destruction of PCBs in the areas identified.

As well, and as has been described many

times over the past few days, we will be treating the other sediments with S&S. So we will also treat to full depth. So again, the treatment will take place right to till and we will capture and immobilize any PCB sediments there, as well.

MR. HARPER: Madam Chair, I would ask that my question be responded to.

THE CHAIRPERSON: Can I ask the Chair if you wish to add anything more to that answer in terms of the question being are you confident that you know the full extent of PCBs in the north and south ponds.

I would also remind you that, as you know, you have made an undertaking to come back to the panel with the total quantity of PCBs, the mass, the total mass of PCBs in the north and south ponds, and you could provide additional information with that in terms of your confidence level that that's about that figure that you will be providing to us, if you can't answer that question right now.

MR. HARPER: Madam Chair, I think more specifically my question was, based on the research to date is it possible that the PCBs in the Tar Ponds have been underestimated as opposed to the confidence associated with it. That's a different question that Ms. May asked.

MR. KAISER: At this point in time, we have a very high degree of confidence in our determination of the quantities, and we will respond to the undertaking.

THE CHAIRPERSON: I have a question from Dr. LaPierre.

DR. LAPIERRE: I would like to find out if the areas identified are within the area identified for the questioning -- that PCBs located at depth in sampling are within the two areas that you propose to remove PCB from, or are they from another area in the Tar Ponds. Can you confirm where those bore holes are? You may not be able to do that now.

MR. GILLIS: We can certainly take that in an undertaking.

You have referred to specific bore holes in your question. Perhaps you could repeat those for us, thank you.

MR. HARPER: Certainly. The bore holes that I referred to were -- again, this is from the Jacques 1996 report -- bore holes 7833, 7839, AB70, AB71 and AC09.

MR. GILLIS: Thank you very much.

THE CHAIRPERSON: So we have an undertaking from the Chair to provide information as to

the location of those bore holes and how they relate to the two areas that are going to be removed, correct?[u]

MR. GILLIS: That's correct.

MR. HARPER: Madam Chair ---

THE CHAIRPERSON: Can I just take a moment, please, Mr. Harper, I just have -- I'm sorry, that was an issue unrelated. Yes, Mr. Harper.

MR. HARPER: Thank you. I guess I understand there's a large degree of confidence associated with the results as has been indicated. I'm not sure if my question has been answered. I don't know if I keep having to repeat it or not, but I leave it out there, Madam Chair, that I put to you it has not yet been answered, specifically as the possibility that the PCBs in the Tar Ponds have been underestimated. But I will move on.

THE CHAIRPERSON: I'm prepared to add that question -- to ask you if you will answer that question as part of the undertaking to provide us with the information of the total mass of PCBs. Are you willing to take that as part of that undertaking?

MR. GILLIS: We'll certainly provide some statistical validation of that information as we go forward which should address Mr. Harper's question more specifically.

THE CHAIRPERSON: Thank you.

MR. HARPER: My next question therefore is if the PCBs have been underestimated, how does that affect the risk associated with the remediation of the Tar Ponds and the Coke Oven sites?

MR. GILLIS: I'll ask Dr. Magee to address that issue, please.

DR. MAGEE: Yes, thank you, Mr. Gillis.

I can respond in two ways. One is that in the environmental evaluation area of endeavour, we never know exactly what the true concentration is of any constituent in soil or sediment or what-have-you, and so one of the ways that we take that into account is to always use the upper 95th confidence interval on the data we have, and that's because we don't have 100 percent surety that we know the mean concentration of any constituent, so that gives us an extra level of protection when we do our risk assessment work. So that's the first part.

The second part is that we have modelled the emissions of PCBs from all of the various excavation and stabilization activities, and the risks are so low that if the PCB concentrations were 100, 1000 or even, I think, probably 10,000 times higher, the risk would still be well within the project's significant levels. So it

makes no difference whatsoever.

THE CHAIRPERSON: Mr. Harper, even giving you back some of the time I stole from you, that does bring you to the end of -- a bit over 20 minutes. Do you have other questions? Will you be coming back in the second round?

MR. HARPER: I do.

THE CHAIRPERSON: All right. Thank you.

Debbie Ouellette is our next questioner, and following Debbie it will be Marlene Kane, which will probably just about take us up to 5 o'clock.

--- QUESTIONED BY MS. DEBBIE OUELLETTE

My name is Debbie Ouellette, and I'm a former Cedric Street resident, so I know what contamination that comes off the site can do to a family, but my concerns are they are monitors, real-time air monitors. That means that they pick up the contamination, like right off -- right at the moment, where -- a stationary air monitor means they're the background levels if there's contamination that comes off the site.

I want to know if you can guarantee, in writing, that these air monitors and real-time air monitors will be on the whole time work will be done on the Coke Ovens site and Tar Ponds for 24 hours a day and

7 days a week.

MR. GILLIS: I'm going to ask Mr. Kaiser to address this question, please.

MR. KAISER: As we have demonstrated in the past, when we are conducting any construction activity on the site, we will run the air-monitoring systems, whether they be the real time or fixed stations, in complete accordance with the regulatory requirements, whatever they may be, because they will vary depending on the activity. But certainly our air monitoring system will be very robust, and we will collect as much information as we are required to collect.

MS. OUELLETTE: I'm sorry, that doesn't answer my question.

My question is when activity on the Coke Oven site and Tar Ponds, when you decide to work on these sites, will the real-time air monitors and stationary monitors be on while work is being done.

MR. KAISER: Yes.

MS. OUELLETTE: For the 24 hour day period and 7 days a week?

MR. KAISER: We will operate our air-monitoring equipment when we are conducting construction activities on the site.

MS. OUELLETTE: You're still not giving me

a time limit, because let's say you disturb the cooling pond -- they did that the other day and they certainly didn't inform the residents first, which they ended up with headaches and didn't know where they were coming from -- there was a zincy smell in the air, which the air monitors, did they pick up that smell?

MR. KAISER: It is correct that the other day or actually a few days last week we conducted some activity at the cooling pond. We did run air-monitoring equipment, we did not have any exceedences or any issues whatsoever associated with that activity.

MS. OUELLETTE: That's the answer I knew that you would give me, for the simple reason naphthalene and ptyalin, under a cover of the Domtar tank, released exceedents in the air monitors. But why weren't these air monitors on 7 days a week, 24 hours a day? You only put them on a certain time in that hour, so you have 45 minutes that you pick up nothing. That could be a real health hazard to the people living in around these sites.

THE CHAIRPERSON: And your follow-up question is?

MS. OUELLETTE: We want a guarantee that these air monitors -- our only protection, Mrs. Chair, is that they rely on the monitors to tell us when the exceedents leave the sites. In the past, we've only

found out maybe 2 or 3 days later, 7 days later, that there was exceedents in the air monitors, and we have no protection and we have no way of knowing, if they don't take them to the lab till like 5 or 6 days later. So we just want a guarantee 'cause that's all the guarantees we have are these air monitors.

THE CHAIRPERSON: Have you anything to add to your reply with respect to the agency's commitments that you'll be making to the community with respect to when you'll be operating air monitoring?

MR. KAISER: If it would be helpful, Madam Chair, I could try to explain to the group, and certainly to the questioner, how the air monitoring is conducted, and hopefully explain in enough detail that there's a better understanding of why certain instruments do not run continuously for 7 days a week or whatever length of time.

THE CHAIRPERSON: Can you give a very brief outline and then we'll go back to Ms. Kane (sic) for her next question. Can you do it very briefly at this stage?

MR. KAISER: I believe so, yes.

THE CHAIRPERSON: Thank you.

MR. KAISER: When we conduct activities at the site, we go into a construction mode where we bring

in the real-time equipment to make sure that as we conduct those activities we do not create any difficulties in the surrounding environment.

As we have been doing for many years now, prior to that, we have samplers that are at fixed stations, that are located around our site, and they run in accordance with what's called the National Air Pollution Surveillance System, and it also follows those protocols.

What is going on now and has been going on for quite some time is we collect data, and we compare our data to both other areas as well as other activities. That instrumentation typically runs on a 24-hour cycle once every 6 days.

As I've said, when we go into a stage of construction activity, we bring in real time hand-held instruments that are used up close, collect the information as it's -- you know, as any emissions might be created, and monitor what those levels are.

We vary the type of instrumentation or the parameters that we measure, depending on what we expect to see from the construction activity. Typically, we're concerned about dust or total suspended particulate.

As I've said, I guess, the two methods are used, and they're used in a way that they tend to

complement each other so that we have a better picture of what the ongoing conditions are at our site, as well as a better picture of any impacts that we might create as we do work on our site.

So the reason that some monitoring equipment isn't just turned on and left on is that there's no particular value in approaching it that way. All you're doing is generating a lot of data that you can't necessarily compare to any particular activity you might have undertaken at any particular time.

We, of course, continue to proceed down the road where we gather more information about our site, and we gather more information about our activities, and if we reach some point in time where, you know, we can make changes in our approach that may give better assurance to the community, we would certainly endeavour to do that wherever possible.

THE CHAIRPERSON: Thank you, Mr. Kaiser. Ms. Oulette, I apologise for referring to you as Ms. Kane.

MS. OUELLETTE: That's okay.

THE CHAIRPERSON: Ms. Kane, I apologise to you, as well.

Would you like to ask another question?

MS. OUELLETTE: Concerning the air

monitors, in the past -- I know how they work. I videotaped them when they weren't on, I videotaped when they took down the byproducts building and the consultant lied to me, he said they were on and they weren't on.

A lot of the times when they've disturbed the Coke Oven site in the past, we were victims of really naphthaleney smells, there was benzene smells, there was -- really at high amounts. We took one sample of naphthalene, the sample was 9,960, that was just one sample, and we had tar-like smells every time they disturbed the site.

My concern is, if they put in an incinerator and they only turn the air monitors on every 6 days, we have no protection the 5th day, the 4th day, the 3rd day. And this is why we need better protection when they want to take quality and the air that controls these sites. We really need better purification than that because ---

THE CHAIRPERSON: And do you need -- have you another question -- like to get you to your question?

MS. OUELLETTE: My biggest concern was the air monitors, and you still -- they're going to come on every 6 days, sometimes every 12 days. It's not good enough for us any more because we do have health effects that do affect the public and we don't have any

protection.

Now, when they start to serve in the Coke Oven site and the Tar Ponds, and people end up getting sick or they have rental properties, are the governments going to step in and help these people, because people are not going to want to move into the area or live in chintzy apartments, or they don't want to live in their homes when they disturb these sites. Is the government going to step in and help these people, because it certainly did happen to me?

MR. POTTER: Madam Chair ---

THE CHAIRPERSON: Yes, Mr. Potter.

MR. POTTER: --- if I may respond, I guess, in a general nature. The Sydney Tar Ponds Agency is very, very committed to air monitoring and emission, odours coming off of our site. I think it's safe to say if there's one area that we spend the most time on it would be air monitoring. We work extremely closely with the Provincial Department of Environment, Nova Scotia Department of Health, the Medical Officer of Health, Chief Medical Officer of Health, Health Canada.

We spend a lot of time on protocols, guidelines, criteria, procedures, methodologies. We're currently looking at, you know, expanding our methodologies right now with some new technologies.

We are making every effort we can to ensure that air monitoring is a priority with the agency, in all activities that we do on site.

We recognize that yes, there will be odours. I think we've addressed that in some of our IRs in the past that, you know, odours will be noticed during the project, dust will be noticed during the project, but the important aspect is that we make sure that we are -- have the clear set of protocols in place. Those protocols will identify when we take certain actions. We've done that in the past with other projects we've done on the site, and we'll continue to do that.

I just want to re-emphasize that, you know, it's a very big concern for the public, it's a big concern for us, so we will address it appropriately.

THE CHAIRPERSON: Thank you, Mr. Potter. Do you have any additional questions?

MS. OUELLETTE: The other day they put up a slide and I really didn't understand. It showed a level of arsenic maybe 30, maybe 50, and then at the end, when they -- I'm not sure if they burnt it, it was 89. Like why would the arsenic level be higher?

THE CHAIRPERSON: This would be in reference to metal contents in the bottom ash?

MS. OUELLETTE: It was a slide that they

had put up, and I really couldn't see the numbers from where I was at, but I was just wondering why the arsenic levels would be higher.

MR. GILLIS: I believe that was with respect to the bottom ash concentration buildup, is that right?

THE CHAIRPERSON: It was a bottom ash question, and it was, I think, some clarification, a follow-up question with respect to an Information Request that had gone forward from the panel, and you showed the diagram and the table.

MR. GILLIS: I'll ask Dr. Brian Magee to give the explanation for that.

DR. MAGEE: Yes, thank you very much.

The plan is to take the sediment out of the ponds, as we know, and to condition it to get the consistency appropriate for a feed into the incinerator, and also to control the moisture.

When we add the bottom ash from the incinerator, something like arsenic, just as an example -- when it goes into the incinerator most of that arsenic will end up, won't be combusted, it won't come out up into the air because we need to control that. Where it will end up will be in the bottom ash which we will take back and use to condition the next batch of feed

material. So we're looking to add a little but it levels off.

So the first two or three times you use that incinerator bottom ash to condition the next batch of the sediment, it goes up a little bit, a little bit, and then after three or four or five different rounds through the incinerator it stabilizes.

It's the same arsenic, we haven't created any arsenic. It has to do with burning the organic material which then makes the total volume of the material that the arsenic is mixed with is now a lot lower, right, because we burned the PCBs, we burned the PAHs, that's been converted into CO2 and water and goes out the stack. So the arsenic is residing in a matrix that is less massive, so that means the concentration goes up.

We're not creating arsenic, we're just squishing it into a smaller space which makes the concentration go up a little bit.

MS. OUELLETTE: That was my point, I said here the arsenic level is higher, it's 89 -- like the arsenic level, why would it be higher?

Like I moved a whole house, a whole street because of high levels of arsenic in my basement that seeped in. Like wouldn't this arsenic be a concern, a

chemical that would bother people that if it was just left in the air?

MR. GILLIS: I'll ask Dr. Magee to address that question as well.

DR. MAGEE: Well, again, we're not creating additional arsenic. The total amount of arsenic that's in all of the sediments that are going to be taken up to the incinerator is fixed. It's not going up. What we're doing is we're taking it up to the incinerator with the PCBs and the PAHs. It just goes along for the ride, as it were. It goes up to the incinerator, it drops down into the bottom ash, it comes back in a truck and gets put back in and stabilized.

The concentration goes up a little bit because we push the atoms of arsenic into a smaller mass of total material by burning off the PAHs and the coal finds and so forth and so on. So it's the same arsenic atoms are going up to the incinerator, being put in a container and brought back and stabilized, no net increase, no net loss, goes up, comes back, gets stabilized.

MS. OUELLETTE: So you bring this back to the Tar Ponds, is that what you're doing?

DR. MAGEE: I'm sorry, you'll have to repeat that.

MS. OUELLETTE: You're bringing back this material to the Tar Ponds?

DR. MAGEE: Yes, that's correct.

MS. OUELLETTE: So arsenic levels in the Tar Ponds could be really high, and then if you're going to leave that open, isn't it going to be a health concern? Because it certainly was for me, but ---

DR. MAGEE: I'm sorry, you'll have to repeat the question, I was being bombarded in three directions.

MS. OUELLETTE: I'm just saying you're going to bring back that high level of arsenic back to the Tar Ponds, it's going to sit there, it's a health hazard. It's going to cause a health hazard in my books. It certainly happened to me, but my next question would be ---

THE CHAIRPERSON: Excuse me, just one moment. Could the Chair just clarify what happens to the arsenic when it's returned in the bottom ash to the Tar Ponds.

MR. GILLIS: Yes, and I'd ask Don Shosky to explain the materials handling that the mass goes through.

MR. SHOSKY: Thanks, Mr. Gillis.

At the Tar Ponds location, the bottom ash

or clean soil that comes down, that has the arsenic concentrations that you're concerned about, goes into the Tar Ponds, is stabilized with cement, which causes a reaction to occur which allows that arsenic to not be mobile.

The materials, when they're placed in the Tar Ponds will be placed in such a fashion as to minimize dust and things of that nature to ensure that there are not dust releases that may potentially contain arsenic.

Those, there'll be mitigation control measures in place which will keep that from happening, as well as having the additional air monitoring for those particular parameters.

So the arsenic will be placed in an engineered contained system and all along that process dust issues and things like that will be controlled through engineering controls.

THE CHAIRPERSON: Ms. Oulette, you've got a couple of minutes left, so if you'd like to ---

MS. OUELLETTE: Okay. Another one is Frank's -- this was in his presentation the day that he was saying it.

You stated that the Domtar tank contains coal tars, a product that you can buy at Canadian Tire. This product, is it listed on the outside of the

container that the material from the Domtar tank, that's what you're going to use from these containers at Canadian Tire? Are you saying that they used -- the Domtar tank, the material, you can buy this stuff at Canadian Tire?

MR. POTTER: The reference was to the fact that the coal tar material in the Domtar tank would resemble typical coal tar emulsions that you would buy at Canadian Tire for sealing a driveway or perhaps a foundation wall, not identical but, you know, similar to that type of material. That was the reference in the opening remarks on the Saturday morning.

MS. OUELLETTE: Yeah. If the waste from the Domtar is no worse than what we buy at Canadian Tire, then why did it cost more money to ship 88 blue containers by rail to be destroyed?

Parker Dunham was supposed to let the residents know where these containers went. As yet, he has told no one. So Frank, can you tell me where the final resting place where these -- the Domtar waste went, and how it was destroyed.

MR. POTTER: The Domtar tank material has been properly shipped to an approved licensed facility authorized to destroy the material. That material is presently in the process of being destroyed. Upon

confirmation of certification of the material being destroyed, we will notify people of the final outcome of that.

MS. OUELLETTE: That was about a month or so ago. Like you know where it went, we just want to know where it went and how it was destroyed.

MR. POTTER: It's being destroyed at a licensed facility. We will not ---

MS. OUELLETTE: Where?

MR. POTTER: --- identify the facility. It's being properly destroyed at a licensed facility. Upon completion of that destruction, we will notify the residents of the outcome of that destruction.

THE CHAIRPERSON: Ms. Oulette, that does conclude your 20 minutes, so I thank you very much for your questions. Do you have more questions, will you wish to come back for a second round?

MS. OUELLETTE: I'm not sure yet.

THE CHAIRPERSON: All right. Thank you.

Marlene Kane.

--- MS. MARLENE KANE

MS. KANE: Good afternoon. My name is Marlene Kane.

First of all, I'd like to know why is it stated in the EIS that there are 120,000 tonnes of PCB

contaminated sediments when there has only ever been 50,000 tonnes of PCB contaminated sediment.

THE CHAIRPERSON: Could you clarify for me why you're making that distinction?

MS. KANE: Yes, I'd like to know if any further testing has been conducted to identify any more PCBs that we don't know about.

MR. GILLIS: I'll ask Don Shosky to speak to that with respect to some of the engineering considerations that went into that number.

MS. KANE: Into 120,000 tonnes?

MR. GILLIS: That is correct.

MS. KANE: Okay.

MR. SHOSKY: Yes. The reason that that number went from 50 to 120,000 tonnes is there was analysis made of sloughing factors that would occur during the excavation process. And as we stated earlier, during the discussions earlier this week, there was a commitment made by the Tar Ponds Agency to remove all that material.

Unfortunately, it doesn't come out as a nice block of material, and you'll have some sloughing, so that over-excavation of that material is a part of the proposed plan for thermally treating that material.

MS. KANE: But PCB contaminated sediments

are defined after they've been excavated if they're over 50 ppm. So if you anticipate that the dilution from excavation will bring them below 50 ppm, then is it accurate to state you will be destroying 120,000 tonnes of PCB contaminated sediments?

MR. POTTER: I'm not sure, perhaps you weren't here the other day, there was a question asked about are we -- as regarding excavation and the blending process, and the statement I made was that we were committed to taking 120,000 tonnes of the sediment from the Tar Ponds.

I guess you're correct if we're really careful about the language it's not 120,000 tonnes of sediment contaminated with PCB, it's 120,000 tonnes of sediment we have to remove to get the roughly 50,000 tonnes of sediment contaminated with PCBs above 50 ppm.

MS. KANE: Okay. So it's not 120,000 tonnes of PCB contaminated sediments that will be incinerated.

MR. POTTER: Correct. We're incinerating 120,000 tonnes of sediment. The summer, as you know, in the way that the plume is, especially in the north pond, we have uncontaminated sediment on top that, you know, we will have to remove. That will go to the incinerator and yes, indeed, it wouldn't be classified as a PCB material

but it will be going through the process of being treated.

THE CHAIRPERSON: If I can just add a point of clarification. Yes, the panel actually did pursue exactly your questioning, and we were pursuing it on, and we made reference to Public Comment 49 with a series of questions there.

MS. KANE: I did hear those, yes.

THE CHAIRPERSON: You were there, so you heard that.

MS. KANE: Yes.

THE CHAIRPERSON: And so I understand that we got a clear statement from the The Chair that, in fact, they will be taking all of that 120,000 tonnes without testing -- it will be going without sampling, am I correctly interpreting what you told us?

MR. POTTER: Yes.

THE CHAIRPERSON: Oh good.

MS. KANE: Considering the expense of incineration, why are you now suggesting -- I mean, aside from the PCBs, why are you now suggesting that you will incinerate all excavated sediments, not just sediments over 50 ppm?

I realize you just kind of answered that question, but I'm wondering, because it's not

economically responsible to incinerate this material when, in fact, what you've stated there is only 3,500 tonnes of PCBs within that larger amount. Would it not be more responsible to try to remove the contaminants from the 120,000 tonnes and dispose of them in a different -- using a different technology?

MR. GILLIS: I'd refer this question to Don Shosky, he'll talk about some of the engineering considerations involved in doing just that.

MR. SHOSKY: When we reviewed our situation out there in quite a bit of detail, in order to excavate those areas out again we would receive a lot of sloughing from additional areas, and we expect to have additional materials that we would have to burn.

The actual calculations of pure PCBs that we found out there were pretty low, certainly less than 4 tonnes total, so it's around 3.8 tonnes of actual PCB oils.

So it's a conservative way to approach it, the Tar Ponds Agency decided to do that. There are difficulties when you go through an excavation process to -- in a sediment environment to segregate things. As you've suggested, there is a cost involved with that, and when we did the evaluation we felt that that was an appropriate assumption to make.

MS. KANE: But other technologies, as stated actually in the JAG workbook, which I think it was called Considering Technologies, it talks about the sediments being processed, for example, first by thermo-desorption to evaporate off all the contaminants, and then condense those evaporates. They would then be destroyed by another technology such as plasma or hydrogen reduction or another suitable method. Would that not be more economically responsible if you're only talking about 3,500 tonnes of PCB contaminated material -- sorry, PCB material?

MR. POTTER: I guess we have to go back to the -- I think we have to go back to the MOA again and the project that's been defined and described and funded through the MOA. That's the project we've assessed.

The EIS was subsequently required to review again alternative means which we do address in the EIS report. The project that's before us today is the project that identifies, you know, removal of the PCB material, the 120,000 tonnes, the tar cell material, the Coke Oven brook sediment, and taking that to the incinerator, and that's the project we are focusing on.

If you a have a question relative to the EIS alternative means that we covered, the tables that are in the EIS report, we could answer a specific

question on that, but I'm not sure if I can answer the previous question.

MS. KANE: Would that not just be a question about alternatives, then, that certainly were the #1 choice in the JAG workshop -- workbook deliberations that took place within the community, 1754 respondents, that was option 3.

THE CHAIRPERSON: Ms. Kane, can I verify your question with respect to alternative means of carrying out the project -- sorry, alternatives to the project, your question is about the economic feasibility of those alternatives, is that -- I do have a question from Mr. Charles. Maybe we'll get him to answer -- to ask it and maybe that will add to this as well. Yeah, just a moment.

MR. CHARLES: Am I mistaken, but when you're taking that 120,000 tonnes out and burning it, you're also burning PAH's are you not? It's not just PCB's that you're burning?

MR. POTTER: That's correct.

MR. CHARLES: So there would be some other benefit ---

MR. POTTER: Yes.

MR. CHARLES: --- doing the 120,000 tonnes?

MR. POTTER: Yes, there is.

MS. KANE: And I think my question would be then, if you're going to destroy some of the PAH's why aren't you destroying all of them?

MR. POTTER: I'd like to go back to I think what was a previous question -- I think that's a new question -- but I'd like to go back and have Mr. Shosky try to address the previous question and we'll come back to that question again.

MR. SHOSKY: I'm going to take a moment to go through Public Comment 14 which was our response to technology vendor about why their particular technology was not selected for this project. And I think it's worth remembering at this point in time that this process of selecting technologies has gone on for quite some time.

It started out with reviewing approximately 100 different technologies for application here. It was narrowed down to 14, ultimately ten. And then reviewed again as part of the EIS efforts to come up with the best possible solution. So a lot of technologies were reviewed in this process. And through that process I think that there was a narrow down of a number of different options at the end which was narrowed down to a few options which is what the EIS was based on.

So for the other technologies that are not part of this, all I'll say is that an evaluation has been performed on all those technologies and that the position is is that based on our information that was the best set of technologies put forward at this time. Because it started from a list of over 100.

MS. KANE: I'm not here to endorse the technology. I'm just suggesting if there'd be another alternative that would be economically feasible. Just as an aside, the thermal desorption was a proven technology during bench scale testing that was conducted by the consultants and government. If I could move on, then, to my next point.

MR. POTTER: Madam Chair, I think there's a question we're leaving out there. The why not burn all of the agents.

MS. KANE: No, I didn't say burn it. I said destroy, as was the JAG recommendation.

THE CHAIRPERSON: I confess, I have -- you're saying there's an additional question that you have not been able to address yet? I'm sorry, I've lost it if there was one.

MR. POTTER: If Ms. Kane could repeat the question make sure I'm clear on it. If you just want to repeat it. I heard something about all of the PAH's.

MS. KANE: Just in relation to what Mr. Charles was saying, how there'd be an additional benefit of destroying the PAH's as well. I said well, you know, if that's the case why would we not aim to destroy all of the sediments in the Tar Ponds which is what the community recommended. That was their choice.

MR. POTTER: The -- I think I indicated in the -- my opening on Saturday morning that that was a consideration at -- that governments had contemplated. The cost of removing and treating, destroying the contaminants was estimated to be roughly, I think I said, twice the existing cost of the project right now. And that the decision of the government was that there was not a sufficient benefit to spending that extent of money to accomplish no net benefit from an environmental point of view.

MS. KANE: Thank you but I'm not quite sure how you come to the conclusion that it's twice as much because I've never seen how you've worked that out. Is that available to -- for us to see how it -- how you decided it was twice as much?

MR. POTTER: The RAER document was the basis for generating those numbers. There were, I think as we responded in the past, other costs that we have to add in for what we -- I think we referred to the term as

project costs that we've talked about in the past. And -- but the basis for generating those numbers to come at the -- arrive at the roughly double the cost was generated initially from the RAER work.

MS. KANE: So then can you provide the detailed costing of how you arrived at that -- at the cost being twice as much to remove and destroy all the contaminants in the Tar Ponds?

MR. POTTER: Madam Chair, we're coming back with another undertaking for costs. We'll try and incorporate some of those numbers in there so that it's clear where that ultimate doubling factor comes into play. [u]

THE CHAIRPERSON: Thank you very much.

MS. KANE: Thank you.

THE CHAIRPERSON: For clarity, that goes -- that gets -- I think we should make this a new undertaking just to be clear on the record. So you're undertaking to provide some more information on costs to -- around the costing of removing and destroying all of the sediments in the north and south Tar Ponds.

MS. KANE: The starting point for the development of a criteria where the guidelines -- I'm talking about, sorry, site specific target levels -- the starting point for the development of the criteria where

the guidelines of the CCME, the SSTL's were finalized in consultation with regulators and based on risk assessments conducted as part of this EIS, speaking about CCME, I'd have to read a few sentences just to clarify my point. In 1997 the Federal Government stated in correspondence that:

> "Where the Federal Government contributes funds to a project or where Federal wastes are involved, projects will have to comply with existing Federal regulations and policies, except in instances where Provincial regulations, standards or policies are more stringent. Therefore, as a minimum any CCME guideline will apply and JAG will build them into its criteria."

In keeping with the Federal Government's commitment to the CCME guidelines as a minimum, I'd like to know why the SSTL's are not -- let me re-phrase that, how much more stringent are your final SSTL's than the CCME guidelines?

MR. KAISER: Perhaps it would be worthwhile at this stage to sort of go over again the

steps we took to arrive at the SSTL's and the purpose of the SSTL's. And I will do that briefly.

We went out and did our site assessment work. We characterized our site quite fully. We determined where the contaminants were located. We then went out and did human health and economical risk assessment work which determined based on the possible receptors and the possible pathways what the risk is at present.

From that work the ERA and HHRA information was turned into numbers that were listed as our site specific target levels or SSTL's. The SSTL's are used to determine what remedy can be applied. The SSTL's are not clean up criteria. We simply use the SSTL's to say that okay, if we have a certain risk posed by a certain contaminant on the site located at a certain location that could come in contact with a certain receptor, then we must address that risk.

We addressed that risk by applying a certain remedy. If the remedy is effective then we eliminate that risk. For that reason, at the end of the day when we apply the remedy to your site -- in other words, when we go in and do land farming or capping or SNS or incineration or whatever it is, we will eliminate the risk and we'll also basically move beyond the SSTL

because it is not a clean up criteria. So when we come back and re-evaluate whether or not the remedy has been effective, or in other words, we come back to see if we have cleaned up or managed our site, we will not be comparing to an SSTL. We will compare to a criteria number that will be given to us by a regulatory agency.

MS. KANE: Thank you. In keeping with the Federal Government commitment to the CCME guidelines as a minimum, I'd like to ask why with regards to siting and the incinerator at Victoria Junction, why you're not using the 1,500 metres siting criteria which is required for incineration facilities in the CCME guidelines?

MR. POTTER: Madam Chair, I believe I've responded to this question previously but the response was that we will address and follow all appropriate regulatory requirements at the time of the licensing of that facility. The guideline again as I mentioned before, we feel is not appropriate for this situation. That the guideline that's being referenced is a 1992 document for permanent facilities and as I say we will follow all appropriate guidelines and all appropriate requirements of the regulatory agencies at the time of permitting that facility.

MS. KANE: Have you taken into consideration the mobile PCB -- I'm just curious -- the

mobile PCB incineration guidelines which are from 1990?

MR. DUNCAN: Just in summary, we did look at a number of jurisdictions and regulatory requirements associated with siting of temporary mobile PCB incinerators. In the siting study that was conducted as part -- as appended to the project description, we went through a number of legislation -- pieces of legislation and jurisdictions that do speak to the siting of mobile PCB incinerators. And talked specifically about the difficulty in finding standard references for siting criteria associated with these types of facilities.

The CCME requirements as indicated by Mr. Potter were for a fixed permanent hazardous waste facility which in this situation doesn't apply to the facility that we're -- that's being proposed as part of the project.

MS. KANE: Well, I'm not -- sorry.

THE CHAIRPERSON: No, do -- well, you have come to the end of your 20 minutes. I was about to ask a question of clarification, however, based on that. So I will do that. The mobile PCB guidelines, that's a Federal set of guidelines that's been referenced, is that correct? And what circumstances did they apply? Those are regulations, are they not? Not guidelines?

MR. DUNCAN: We're just doing a double-

check but we believe that the Federal PCB mobile regulations that we're referring to talk about the operations and -- of a PCB incinerator on Federal properties. That's the reference, I believe, that you're making.

THE CHAIRPERSON: And it's your intention that when you site the incinerator on the VJ lands that those lands will not be Federal lands? That's your intention?

MR. DUNCAN: I think as Mr. Potter indicated either yesterday or Saturday, that those lands will be Provincial lands and under the jurisdiction -- the incinerator will be operated under the jurisdiction and the requirements of the Nova Scotia Department of Environment and Labour.

THE CHAIRPERSON: And that is the plan at the moment but that's not -- there's not commitment at the moment from the owner of those lands to transfer them to the Province? I'm sorry. I know we're going over some things you said yesterday and I don't always remember it but just to get this clear.

MR. POTTER: There is a Letter of Intent from the Province to the current land owner indicating that we have an interest in having control of that property when we get to the point of doing the

incineration there for I think purposes we've talked about before, being able to have access and control of the use of that land so that's correct, that's the extent of it. There's not been anything further than that?

THE CHAIRPERSON: Well, perhaps we might explore with the -- with a provincial regulator how the Provincial regulatory regime works different from the Federal. That might be of interest to the panel, I think.

Thank you very much, Ms. Kane. That brings us nicely to 4:58. So we are now going to take a break until 6:00.

Can I, before you go, with the people who are present, I'd just like to double-check who I have who are still interested in coming back for a second round of questioning. Let me just go through them please.

I understand not Environment Canada and not Health Canada. Am I wrong? Environment Canada. I was wrong. Yes, you're down for -- Health Canada? Do they wish to come -- do you wish to come back for a second round? Save Our Health Care Committee, yes. Grand Lake Roads Residents, yes. Sierra Club of Canada, yes. I see Mr. Ignasiak, yes. Eric Brophy -- Mr. Brophy? No. Mr. Harper, you said yes. Ms. Ouellette and Ms. Kane, yes. And I will check with Ms. Hendricksen

on whether we have additional names.

Thank you very much. We'll see you again at 6:00.

--- Upon recessing at 5:01 p.m.

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Janine Seymour, CCR
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Gwen Smith-Dockrill, CCR
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Tuesday, May 2, 2006 at Halifax, Nova Scotia