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New Brunswick Board of Commissioners of Public Utilities

In the Matter of an application by NB Power dated January 8, 2002 in connection with a proposal for Refurbishment of its facility at Point Lepreau.

Delta Hotel, Saint John, N.B.
June 3rd 2002, 9:30 a.m.

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CHAIRMAN: David C. Nicholson, Q.C.

COMMISSIONERS: Ken F. Sollows
Jacques Dumont
H. Brian Tingley

BOARD COUNSEL Peter MacNutt, Q.C.

BOARD SECRETARY: Lorraine Légère

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CHAIRMAN: Good morning, ladies and gentlemen. The Board's apologies for starting late. We had a number of matters that we had to go through.

Before I turn to the parties and ask for any matters they wish to bring up, I have a statement the Board wants to read and that has to do with NB Power's reorganization. And as you know, the Minister of Natural Resources and Energy announced in the Legislative Assembly on the afternoon of May 31, 2002 that NB Power would be reorganized.

NB Power would remain as a publicly owned crown utility. There is to be a holding company with four subsidiaries, as we understand it. They will be called respectively, NB Power Holding Company, NB Power Generation, Nuclear Transmission and finally, NB Power Distribution and Customer Service.

The Minister said at page 6 of his speech, "Each of the restructured companies will be instructed to operate on a commercial businesslike basis as of April 2003."

Later on page 6 the Minister said that, "The Province will continue with its opening of the electricity market for wholesale and large industrial retail competition to meet the already announced timetable of April 2003."

He then said, "Each of the restructured NB Power companies will begin preparing immediately to operate in that new environment." He concluded on this point by stating that the details of the market design in which they would compete would be determined later this year once the final report of the MDC had been received.

At page 10 of his speech the Minister provided details of the responsibilities of the five companies. With particular reference to the Point Lepreau Nuclear Generating Station he said, "NB Power Nuclear will be responsible for the operation of Point Lepreau."

On page 11 the Minister stated, "Legislation to bring out this restructuring will be introduced in the legislature during the 2002/2003 session."

Under the heading, "Commercialization of NB Power", on page 11 of his speech the Minister stated, "Each of the NB Power companies must operate like separate businesses. Specifically, this will require each company to earn a positive rate of return on equity, pay a cash dividend to the Province, pay appropriating common capital taxes and borrow without a government guarantee."

However, NB Power remains today as it was immediately before the Minister's speech. Internally NB Power is expected to begin preparations for the reorganization the Minister outlined.

With respect to the present hearing, the financial information given for NB Power, the refurbishment plans for Point Lepreau, the options to Point Lepreau refurbishment all remain as they were before the speech. Until the proposed legislation is brought into force providing for the reorganization of NB Power, this Board considers that it is business as usual, and will continue with the hearing subject to NB Power requesting that its application be withdrawn in light of the announcements.

Mr. Hashey, has your client instructed you? Does it wish to withdraw the present application?

MR. HASHEY: We wish to proceed with the application, Mr. Chairman.

CHAIRMAN: Okay. Thank you. There is the in-camera order which I read into the record on Friday. We have added some names as a result of that. That in-camera order, of course, was effective the day in which NB Power passed out the three documents that were concerned in it. And the order is in effect and copies of it with the expanded number of individuals who were to receive copies of the documents is available from the Secretary.

All right, Mr. Hashey, do you have any preliminary matters?

MR. HASHEY: Yes, Mr. Chairman. We have provided this morning, or have at the table, a response to the undertaking on the financial forecast that was requested by the Board. Copies were given to Mr. MacNutt of this document. I would like to file it, presumably, as an exhibit. If there are questions on it, I mean I think it's self-explanatory, but it would go to the Panel B evidence of Ms. MacFarlane who, of course, could deal further if there is any questions that might arise from that document.

CHAIRMAN: I would like you to know, Mr. Hashey, that I have requested of the Board financial advisor, Mr. Easson, that he review the Canadian Institute of Chartered Accountants Handbook to see if, in fact, there might not be some way in which we can get the kind of information that we require. But he will do that at a later time and report back and we will chat about it. But I think it should be marked as an exhibit. Do you have a copy for the Board?

MR. HASHEY: I do, Mr. Chairman.

CHAIRMAN: Thank you. That will be Exhibit A-20. Any other matters, Mr. Hashey?

MR. HASHEY: I don't believe so, Mr. Chairman, thank you.

CHAIRMAN: I did overlook one item. Board counsel, my understanding is that Mr. Easson's long awaited report, shall we say, is ready. And would you like to introduce that as an exhibit?

MR. MACNUTT: Yes, Mr. Chairman, I have the report which I would like to have marked as an exhibit.

CHAIRMAN: Okay. That is PUB-1. It would be the Board's intention that the intervenors can pick up, during the next break, a copy of Mr. Easson's report and as a result of that if anybody wishes the Board to put Mr. Easson on the stand for questions in reference to the report, we will do so. If nobody has any questions then we won't bother putting him up or presenting him up. Anything from

AECL?

MR. MILLER: No.

CHAIRMAN: Canadian Unitarians for Social Justice or Saint John Energy?

MR. DALZELL: No, Mr. Chairman.

CHAIRMAN: Okay. I guess the best thing to do is to say are there any matters from any of the intervenors and Mr. Coon says yes. Mr. Coon.

MR. COON: Yes. Good morning, Mr. Chairman. We have three matters.

The first is after considerable reflection on the weekend and discussion within our organization, in all good conscience as a public interest organization we cannot participate in in-camera sessions to cross-examine on documents which we fundamentally feel should be released in the public interest dealing with -- dealing with the deviation for nuclear safety standards and the assessment of monetary risks of refurbishing Point Lepreau.

So we will be returning the three copies of the confidential documents, these documents marked confidential, and we will be seeking them under the Right to Information Act and the federal Access to Information Act.

We of course will exclude ourselves from the in-camera session and join the public in the hall when those occur.

CHAIRMAN: I really appreciate your -- the way you put that, Mr. Coon, and the way in which you have characterized the documents.

Who in your organization in fact has reviewed it?

MR. COON: The documents?

CHAIRMAN: Yes.

MR. COON: Myself, Mr. Thompson, Mr. Secord.

CHAIRMAN: Okay. Any other matters?

MR. COON: Yes. A second matter concerning evidence that we have already cross-examined on given the restructuring announcement. We are seeking clarification from the Board on how to deal with evidence we believe would change with respect to the change in structure.

A simple example just for illustrative purposes perhaps is the cost of replacement power in the event that Point Lepreau is refurbished currently is more or less straightforward to sort out within NB Power, but under the new structure they will clearly have to be entering into some kind of contractual arrangement with some entity, private or public, to purchase that power and the value may change. So how do we deal with the changing evidence -- the changing nature of that sort of evidence that we have already cross-examined on?

CHAIRMAN: Well first of all, I think the statement the Board read, we attempted to be clear until such time as the legislation is introduced and passed, then this is just a statement of intention. So we have to deal with what is here now.

And let me give you an example. There has been an amendment to the Public Utilities Board Act which has been introduced in the house, I believe it's had third reading -- yes, Mr. Barnett says it has -- and it is subject to proclamation. Until that legislation is proclaimed the Board does not have any jurisdiction to entertain an application from NB Power in reference to transmission tariff. We just don't have the legislative authority to do it.

Likewise, until such time as the legislation is proclaimed -- excuse me -- put in the house, debated and its final form passed and proclaimed, if necessary, will NB Power be split up into it's -- into a holding company and four corporations. It may turn out to be 12 corporations, it may be three. We don't know. That's speculation. That's the intention of the government.

The only thing the Board, subject to what Mr. Hashey might have to say, and the applicant can do is proceed as if things were as they are -- or they were last Wednesday in reference to this particular hearing.

Now if any of the -- you know -- the Board will entertain anything that anybody says, but we took a look at it over the weekend and that's the way we have to proceed, is that we are seized with the jurisdiction in reference to this hearing. There is nothing that changes anything in reference to NB Power except a statement of the government's intention. We can't deal with that.

MR. COON: Thank you, Mr. Chairman. The third matter is there have been several media reports of interviews with members of the provincial cabinet who have by their comments suggested that a decision has already been taken on the refurbishment of Point Lepreau, and we are asking if the Board could seek clarification from the Government of New Brunswick as to whether or not that has happened?

CHAIRMAN: Well we will take that under advisement. I will speak to my Commissioners during a break.

MR. COON: Thank you, Mr. Chairman.

CHAIRMAN: Any other intervenor? Mr. Dalzell?

MR. DALZELL: Mr. Chairman, the Citizens Coalition for Clean Air also plan to not participate in the in-camera hearing and will return these documents. The reason -- I of course am the only person who looked at them and read them, but the reason for that is that the information we believe is information that --

CHAIRMAN: Mr. Dalzell, you just returned the documents.

MR. DALZELL: Yes.

CHAIRMAN: You had your opportunity to argue as to why you believed it to be in the public interest --

MR. DALZELL: Yes.

CHAIRMAN: -- that they be released. The Board heard from everybody, the Board made its ruling.

MR. DALZELL: Yes.

CHAIRMAN: Nobody has appealed the ruling. You are perfectly within your rights to return the documents after you reviewed them on the basis that you don't want to participate. That's fine.

MR. DALZELL: Yes, that's it. And we feel that that would be consistent with what we --

CHAIRMAN: Mr. Dalzell, would you just give the documents back please to the applicant?

MR. DALZELL: Okay.

CHAIRMAN: If you want to have statements outside in the hall further then do so, but that's enough for the hearing room. All right.

MR. DALZELL: Thank you.

CHAIRMAN: Any other matters? Mr. Hyslop?

MR. HYSLOP: Thank you, Mr. Chairman. The updated financial information which was filed, the copies have not been distributed. Am I correct in assuming they will be made available during the first break? Thank you.

CHAIRMAN: Any other matters? Mr. Gillis, I understood that you have stood aside for an hour so that Mr. LeBlanc can do his cross-examination, is that correct, sir?

MR. GILLIS: Yes.

CHAIRMAN: Okay. Thank you. Mr. LeBlanc, go ahead.

CROSS-EXAMINATION BY MR. LEBLANC:

Q. - I will be making my interrogatories in French. Bonjour. Bon premièrement je tiens à remercier M. Gillis pour avoir offert de me permettre de demander mes interrogations ce matin.

J'ai lu avec beaucoup d'intérêt le transcript de la transcription de la semaine dernière. Je regrette de ne pas pouvoir rester pour l'écouter après ma sortie ce matin.

Alors comme vous l'avez indiqué, monsieur le Président, je vais -- mes interrogations devraient pas durer trop longtemps, j'espère, avec la coopération des témoins. Alors je veux peut-être vous signaler où je vais concentrer mes interrogations ce matin. Alors c'est surtout bien sûr à le document A-5.

Donc, les réponses aux interrogations que j'avais posées, vous les trouverez sous LeBlanc. Et également le document de la preuve, c'est-à-dire le premier document qui a été soumis le 25 février, 2002.

Et puis je vais commencer en faisant référence à la preuve directe de M. Groom et à l'annexe A-5 et A-6. Et puis pour commencer bien on peut aller directement au document A-5 oui, qui et LeBlanc 1, qui était une question j'avais posé à M. White. Et puis -- alors c'est simplement pour confirmer M. White que advenant une décision négative de votre demande de mise à neuf que vous avez bien sûr l'opportunité de préparer une alternative d'ici 2005 ou 2006.

Est-ce que vous voulez confirmer?

MR. WHITE: Yes. We have an opportunity to prepare an alternative.

CHAIRMAN: Just a second. We will wait. Repeat the answer, Mr. White.

MR. WHITE: We have an opportunity to prepare an alternative.

Q. - Et puis est-ce que c'est, on peut avancer une autre date de 2006? Est-ce qu'on peut également parler de 2005? Est-ce que c'est -- parce que j'ai remarqué dans votre preuve qu'il y a certains des équipements qui pourraient avoir des difficultés à partir de 2005.

MR. WHITE: The refurbishment plan is scheduled so that we meet April of 2006, and by April 2006 there is ample time to develop an alternative.

Q. - Merci. Et puis -- bon, d'accord. Et puis pour passer maintenant à LeBlanc 2, la prochaine question. Bien sûr lorsqu'on parle des retombés économiques de l'ordre de 95 000 000 de dollars dans votre -- votre preuve, j'avais demandé une comparaison. Par exemple avec Coleson Cove vous avez indiqué que c'était 15 000 000, c'est bien 15 000 000 pour la nouvelle centrale qui va produire mille mégawatts?

MR. WHITE: The 15 million represents salaries and direct purchases of Coleson Cove on an annual basis, and under a refurbished Coleson Cove I would expect that those would increase somewhat because they deal with purchases of limestone and those kinds of things, in addition to this an additional trucking requirement. But it's probably, if I would estimate it, and I'm not the right one to be estimating it, but it's something in probably the $20 million range maybe.

Q. - Donc, plus ou moins entre quatre et cinq fois le coût annuel de celui de Lepreau, par exemple?

MR. WHITE: That's correct.

Q. - Et puis avec le déclassement de Point Lepreau ces coûts bien sûr seraient réduit considérablement. Est-ce que vous pouvez avancer une idée de quels seraient les coûts d'opération annuel avec un déclassement?

MR. WHITE: I will ask Mr. Groom to respond to that.

MR. GROOM: I'm not sure I fully understand your question. If you could please repeat it I would be grateful.

Q. - Donc avec une -- si la décision bien sûr est de pas procéder avec la mise à neuf, vous allez de l'avant avec le déclassement. Et puis c'est -- bien évidemment ça sera pas 95 000 000 le coût de l'opération annuelle. Ca sera beaucoup moindre. Alors j'essaye d'avoir une indication.

MR. WHITE: Let me just clarify you. 95 million is not our annual operating cost. 95 million is contributions to New Brunswick economy. Okay.

Q. - Okay. D'accord. Vous avez raison. Et puis par la suite, est-ce que vous avez faite un estimé du coût si on procédait avec le déclassement?

MR. GROOM: Yes. I would direct your attention to the answer that was given in LeBlanc number 10, and in that we identified the decommissioning costs for year one and two. Obviously the decommissioning costs are distributed over the total term of the decommissioning which is on an annual basis given in the evidence.

Q. - Okay. C'est très bien, je comprends. Et puis finalement, la division nucléaire de Point LePreau en termes de personnel est réduite de façon significative.

J'ai compris que vous aviez à peu près 600 employés. Et puis c'est -- bien sûr j'imagine qu'il y aurait une forte réduction de cette main-d'oeuvre. Est-ce que vous avez une idée de quel serait la réduction?

MR. WHITE: Yes. We have indicated we have about 700 people there today and that under the decommissioning scenario it would obviously reduce to those that are required to maintain certain operating systems, heat, light, water, power, those kinds of things, maintain the spent fuel cooling, looking after spent fuel sites. And those things would change over time and Mr. Groom could maybe respond to some of the details of those.

MR. GROOM: The -- for details of the actual staffing requirements I would draw your attention to PNB-57 in which we provide the detailed decommissioning plan and the detailed decommissioning cost estimate. Included in that are a detailed breakdown of actual labour requirements.

But the real work in summary form will be spread out in three phases. In the initial phase where we do the detailed plan and site preparation, which is a period that will last between one to seven years. And this time we are removing -- working to remove all of the fuel, remove the primary amounts of radionuclides from the reactor system in which contamination --

Q. - Excusez. Je vais revenir à ces questions-là. Je vous remercie pour votre précision. Je vais revenir aux questions du déclassement.

Et puis une dernière question par rapport au personnel. Bien sûr il y aurait possiblement des cadres supérieurs qui seraient soit éliminés ou affectés à d'autres tâches avec Energie Nouveau-Brunswick avec un déclassement?

MR. WHITE: Certainly a decommissioning scenario would manifest itself in many changes in the whole organization of Lepreau. We would need to keep the operating people that we need for operating requirements. The management staff might be different in Lepreau definitely as a result of that. Someone in the executive level would certainly be responsible for Lepreau. Whether it would exist in the same form as it is today, I guess we would address that organizational requirement as we approached that.

Q. - Et puis vous avez déjà envisagé ce scénario?

MR. GROOM: Yes. They are a part of our decommissioning plan in the document that I spoke to a minute ago.

Q. - D'accord. On va maintenant à l'annexe A-5, les tableaux

1 et 2 à la page 27 et 30. Et puis c'est LeBlanc-10 qui est une réponse à une de mes question.

Alors, bien sûr ici j'essaye de comprendre davantage l'implication des coûts et de l'opération du déclassement. Juste pour commencer au tableau 1, j'avais faite un calcul très sommaire pour répartir des montants par exemple de la Phase 1, l'étape 1, l'étape 2, étape 3 et puis de façon très simple et je suis arrivé aux calculs de 15 pour cent pour l'étape 1, 25 pour cent pour l'étape 2 et 60 pour cent pour l'étape 3.

Bien sûr l'étape 3 qui est en fait de -- 40 ans d'aujourd'hui, si on se projete de l'avance. Vous n'avez pas besoin de confirmer ses chiffres. Mais c'était simplement pour avoir une grandeur d'ordre.

Et puis j'avais demandé au niveau de la Phase 1, par exemple, dans la question 10, LeBlanc-10, quel était les détailles de ces coûts et vous avez répondu.

Une question par rapport au LeBlanc-10, est-ce que selon vous, M. Groom, il y a d'autre économie qui peut être réalisée dans la Phase 1. Vous avez noté un total de 63.8 million.

MR. GROOM: Yes, that's right, we did. And your rough calculation on the distribution does sound about the right proportion.

The question that I presume you are asking about the answer, if I understand correctly, in question 10 is, are there any savings, any other potential savings that could be included or considered in this plant, is that correct?

Q. - Oui.

MR. GROOM: Yes. What we are in the preparation of the stage 1 and the stage 2 work, we are following guidelines which are also identified in the report which are provided by the nuclear regulator in terms of the format for organizing the decommissing plan, and in that they identify the recommended options for assembling the plans.

So what we have done here is in preparing for Phase 1 plan looked at what we think is a cost effective and safe necessary work in making our estimates. Obviously at the time when we would do the work we would be looking for opportunities for improved efficiencies.

So the plan as it's laid out we think is cost effective and defines necessary work and we think is the appropriate cost for that.

Q. - D'accord. Vous avez par exemple comparé le projet déclassement avec d'autre dans la région qui ont été déclassé je pense par exemple au Maine où on a déclassé récemment un réacteur. Je pense que c'est Yankee ou --

Est-ce que vous avez tenue en compte l'expérience de ce projet, par exemple?

MR. GROOM: Yes, we did. We -- bearing in mind that the work that we have to do in a CANDU reactor is -- for decommissioning has some similarities but some significant differences. The detailed plans have to be prepared around the explicit requirements for the equipment, but the guidelines which we used for the preparation of our plan were in accordance with international standards, the guides identified particularly for Point Lepreau, and the consultant we used was a consultant who has been -- who has had extensive experience with decommissioning and decommissioning planning with the US NRC and with plants in the United States.

Q. - Merci. Et puis vous avez fait ces projections à l'intérieur de l'étude de 40 000 000 que vous avez produite au cours des deux dernières années. C'est bien ça?

MR. GROOM: As I provided in my evidence, as I identified in the presentation I made, the requirements for decommissioning plants have been present at Lepreau since the plant was first started up. So we have had a plan in place which we reviewed on a regular basis since 1983, and that's a part of our -- that's done as a part of our ongoing operation and maintenance costs.

Q. - D'accord. Donc, c'est ça. Donc avec la Phase 1, bien ça nous amène à 2008 environ. Et puis à partir de ce moment-là il y a une période que vous appelez une période dormante qui va durer une trentaine d'années qui nous amène jusqu'à l'an 2040 environ. C'est bien ça?

MR. GROOM: The numbers are about right. The actual time periods are 30 -- the dormancy period, as we call it, is about 31 years, and it follows the -- is what we call the stage 2 period following stage 1. The stage 1 period is roughly one to two years. So assuming that, as you have, the decommissionin g were to start in 2006, then this would get you periods out in the order of 2041 to 2042, about two years later than the one you projected.

Q. - Et puis --

MR. GROOM: Then we begin the stage 3 work.

Q. - Oui. Je vais y revenir. Pardon. Je voulais simplement également vous demander à annexe 6, vous avez un coût de 20 000 000. C'est différent des autres années. Est-ce que vous pouvez donner une preuve et explication du besoin de ces investissements?

MR. GROOM: Yes. In year number 6, again as I described in my evidence and presentation, we -- let me step back.

In phase 1 we will have removed all of the fuel and all of the heavy water from the reactor systems. When we take the fuel from the reactor we place it into the spent fuel bay. At year number 6, then we have a job to take the remaining fuel from the spent fuel bay and move it to dry cannister storage above ground at the used fuel -- the above ground used fuel management site. So that represents the cost for that task.

Q. - Okay. Merci. Bon. Une chose que j'essayais de comprendre c'est vous avez un coût de 3.7 million de l'année bien sûr pendant à peu près de 25 ans qui j'imagine sont principalement reliés à la sécurité du site. Est-ce que je comprends bien?

MR. GROOM: That's one of the elements. In addition we have to maintain our document configuration management. In addition we have to maintain our environmental monitoring programs for measuring the impact of that dormant site on the environment. We have to also maintain our radiation control staff and procedures in monitoring equipment for the remaining staff, including security who are at the station.

Q. - D'accord.

MR. GROOM: So there is a small crew of people who will be looking after these routine activities.

This also of course requires the nuclear regulator to be present and we will have routine reporting of our monitors -- or monitoring results and our maintenance strategy on an ongoing basis with the regulator during this whole period.

Q. - Okay. Si je comprends bien, la majorité des coûts sont liés à la dotation du personnel soit à l'interne ou bien à l'externe?

MR. GROOM: Yes. Well the staffing will be one portion. The other is that there will be maintenance to service equipment, for example, electrical power supplies have to be maintained and a certain amount of grounds-keeping has to be done. So there will be an operation and maintenance budget which will aggregate up to these sums.

Q. - D'accord. Bon. J'ai une question par rapport à votre projection. Et puis je me demande si c'aurait un impact sur les coûts durant la Phase 2.

Vous mentionnez à plusieurs reprises que le plan est de déménager les déchets hors site à un endroit autre, j'imagine à l'extérieur du Nouveau-Brunswick. Vous parlez d'une distance de 2 500 kilomètres. Est-ce qu'il est possible de déménager une partie des -- avant l'an 2040? Par exemple, des déchets qui sont entreposés dans les caves sèches?

MR. GROOM: There would be nothing technical that would prevent such movements taking place if the facility were present, then the costs for using the facility would be on a pro rata basis in terms of the amount of material we move from the Point Lepreau site to that facility.

Q. - Et puis penseriez-vous que ça réduirait les coûts en termes de sécurité à Lepreau si on faisait un transfèrt de ces déchets?

MR. GROOM: No, because -- I don't think so because the remaining equipment which is in the dormancy state would -- in preparation for Phase 3 would also have to be included. So we would still need facilities for operation maintenance of those equipment.

Now the principal advantage of course of the dormancy period is that we would reduce our radiation fields and costs in this dormancy period. It's probably about a factor of a hundred.

So this is the principal incentive for us taking the 31 year dormancy period.

Q. - Oui. J'ai compris pour la déconstruction ce qui a trait à la phase 3. Mais j'ai l'impression qu'il y a un aspect de Point Lepreau qui a des implications sécuritaires peut-être plus exigeantes. Et puis j'imagine quelles sont plus liées à l'entreposage et à la sécurisation des déchets plutôt que de l'édifice lui-même. Est-ce que ce n'est pas la cas?

MR. GROOM: I am not sure I understand the full context of your question. Could you repeat it, please.

Q. - Je présume que au niveau de la sécurité il y a une responsabilité de plus d'exigence. Lorsqu'on a la responsabilité de regarder les déchets dans -- versus seulement regarder la sécurité pour l'édifice et les installations.

Et puis c'est ça qu'était ma question. Je voulais simplement que vous confirmiez.

MR. GROOM: The costs for safety are fairly constant through this period. They obviously -- the costs I think for maintenance of the facilities we need for configuration management, for security and for maintenance will remain fairly constant through this period, because we will have secured the radiation in the building.

So until we have completed Phase 3, the costs on an annual basis are quite constant.

Q. - D'accord. Bon pour la question des déchets -- du transport des déchets hors site. J'étais assez jeune lorsqu'on avait pris la décision de construire Lepreau au Nouveau-Brunswick, mais j'ai l'impression qu'on avait toujours parlé d'un entrepôt central en quelque part au Canada. Et puis on en parle toujours.

Vous laissez entendre à différents endroits dans votre preuve que c'est le cas, que c'est toujours le plan. Est-ce que vous avez une guarantie de soit AECL ou bien une autre partie que nous allons bien pouvoir se défaire de ces déchets dans un avenir soit proche ou plus éloigné?

MR. GROOM: Again as I mentioned in my evidence and as I mentioned in my presentation, this matter is before the federal -- with the federal government at this point, and there is federal legislation which is in the process of being reviewed which will develop a policy for Canada on the management of wastes.

So we will participate and support the government and will comply with whatever requirements the government has.

Included in the strategy thee is a schedule for when they intent to implement the strategy that they propose to have developed. The current schedule involves a three year period from the time that the new legislation is promulgated for a waste management organization to identify the recommended strategy. Then the government, the federal government, will make its decision and recommend both the strategy and schedule for that implementation.

Q. - Si jamais cette stratégie ne marchait pas, est-ce que ça aurait un impact sérieux sur les coûts d'Energie Nouveau-Brunswick ou bien les contribuables du Nouveau-Brunswick si on devait garder en sécurité ces déchets à perpétuité?

MR. GROOM: Well this is an academic question. I would point out though just as a reminder that for the past 25 years we have been storing our wastes in our above ground storages, vessels, concrete containers at Point Lepreau, safely. There have been no incidents of environmental releases. There have been no incidents with worker-dose or public-dose. And the process has been very cost effective. And this methodology I think has been demonstrated to be safe, cost effective and very easy to manage.

Q. - Oui. En fait, je ne doute pas votre réponse. La question c'est -- c'est bien sûr si on compare avec un autre centrale qu'on déclassé, on a pas la même charge au niveau de la sécurité. C'est-à-dire qu'ici si on ne peut pas se défaire de ces déchets; on a une obligation à perpétuité. Alors c'était simplement le commentaire que je faisais.

MR. GROOM: Well again, I point out that our decommissioning plan as it has been costed and as it has been worked out in conjunction with the nuclear regulator, who incidentally has accepted our plan and our strategy and cost estimate, calls currently for at the end of the decommissioning period in Phase 3 to dismantle all of the facility, and this includes the used fuel waste storage devices and the reactor waste storage devices.

So that by the year 2050 we would expect the facility to be returned to a site which is suitable for commercial -- for commercial applications.

Q. - Okay. Si on prend la décision de déclasser Point Lepreau ou bien si vous -- votre demande est refusée, le Nouveau-Brunswick ne sera considéré libre de l'énergie nucléaire à 2050. Alors c'est le plus tôt qu'on peut espérer que la province soit défaite des déchets nucléaire en l'an 2050?

MR. GROOM: The target as I said on the plan would be that within 40 years after the -- excuse me -- within 50 years after the shutdown and decommissioning of the plant we would be in a position to return the facility to commercial use. So obviously if the decision is made in 2006 then your calculation is right. If the decision is made that there is economic attractiveness and refurbishment of Point Lepreau then the time would begin to be calculated after we would decide to shut the plant down some time after 2032.

Q. - Oui. Puis pour continuer sur votre réponse. J'ai estimé que cette date serait environ 2075 si jamais la remise à neuf allait de l'avant ou 2080 si vous allez jusqu'à 30 ans.

MR. GROOM: That's -- let's see. It would be about -- that's about right, yes.

Q. - Puis en l'an 2075, je ne sais pas si je serai ici moi-même, mais j'ai l'impression qu'il n'y a pas grand monde dans cette salle ici qui seront ici également.

Vous avez -- le scénario de déclassement n'a jamais été réalisé au pay encore jusqu'à date, jusqu'à terme par exemple.

MR. GROOM: Is that a statement or a question?

Q. - C'est une question, pardon.

MR. GROOM: There in fact has been some decommissioning work taking place at other sites in Canada. There is a nuclear power plant at the NPD reactor which is -- was started in the early 1950's which is in its dormancy period.

There is another reactor at the Douglas Point site which is in its dormancy period.

There is a research -- there is at least one research reactor at Chalk River, the NRX reactor, which is also in its dormancy period.

So these are all at different stages in the process for decommissioning.

Q. - Et puis le centrale de Point Lepreau est dans la même catégorie que ces centrales? C'est-à-dire, leur plan de déclassement est à peu près le même sur une période de 40 à 45 ans?

MR. GROOM: Yes. As far as I am aware it is my understanding that they are following the same structure of decommissioning plan.

Again I would point out that they too would need to be in compliance with the nuclear regulator guidelines which set the standard for the conduct of these decommissioning strategies and plans in Canada.

Q. - Est-ce que ces centrales ont reçu l'aide du gouvernement fédéral pour leur déclassement?

MR. GROOM: I am not aware of what they have done for funding on these plans. Bearing in mind that the research reactors at Chalk River for example are run by AECL which is a crown corporation, I suspect that they have been funding it from within their own funding arrangements.

So the answer to that question I would speculate would be yes.

Q. - Est-ce que Energie Nouveau-Brunswick a exploré la possibilité de demander, ou bien la province? C'est peut-être plus le rôle de la province. Est-ce que vous avez -- vous êtes au courant de le démarche pour demander l'aide du gouvernment fédéral pour déclasser énergie -- pardon, Lepreau?

MR. GROOM: In terms of the licensing requirements for our nuclear power plants the responsibility and onus for developing the plan and for managing the costs of these rests with the licensee. In this case they are the responsibility of NB Power who currently has the license for Point Lepreau.

Q. - Donc selon vous c'est l'entière responsabilité de Energie Nouveau-Brunswick ou dans le cas -- la province du Nouveau-Brunswick?

MR. GROOM: We have the accountability and indeed have on the basis of that developed the plans and in the information that you have seen in the evidence propose a strategy for funding.

Q. - Je vais maintenant vous faire référence au tableau 2 qui est à la page 30. Et puis toujours avec le coût de 454 000 000, mais bien sûr l'année 2001, on se rappelle que bien sûr les investissements importants à court terme sont en l'année 2006 à 2008. Et puis la majorité des investiseements vont suivre en l'an 2040.

Mais j'ai remarqué dans votre analyse, c'est peut-être que je comprends mal, mais vous avez aux deux derniers points, au point autre et éventualité vous avez le total des pourcentage fait 32 pour cent ou environ un tier des coûts qui me parraient beaucoup. Mais peut-être que c'est -- c'est normal.

Pouvez-vous préciser éventualité? Qu'est-ce que vous entendez par le 16 pour cent? Est-ce que c'est le plan de la contingence?

MR. GROOM: Is that your question?

Q. - Oui.

MR. GROOM: The contingencies again are described in the PNB-57 document I identified earlier. They have been assigned on a task by task basis for each step of the work. So as the plan was put together and the work was broken down into steps for each phase of the work and each year as we went forward, we did an analysis of each task and assigned a contingency based on the risks and the issues that were confronted at that time.

So it's a fairly complicated application, but in the end to show this table all of those contingencies were collected together and brought together here as a single cost item. But to see the exact contingency you need to look into the decommissioning plan and the estimate and on a detail task by task basis which -- what amount applies.

Q. - Puis les frais de la CCSN de l'ordre de 17 000 000, c'est une agence fédérale, n'est-ce pas?

MR. GROOM: That's the nuclear regulator, that's correct.

Q. - Et puis, est-ce que vous avez exploré -- est-ce que c'est nécessaire également que vous défrayeriez ces coûts ou que la Province défraie ces coûts?

MR. WHITE: These are costs of operating the facility and that's the estimated ongoing cost of dealing with the regulator, and they are costs that the licensee has to bear.

Q. - Okay. Et puis si je peux demander des précisions concernant vos assurances et puis sur la décontamination est-ce que vous avez besoin de décontaminer le site lui-même, par exemple, les sols durant déclassement?

MR. GROOM: All right. In regards to the decommissioning -- or the decontamination costs, there are really two phases where decommissioning is carried out -- or decontamination, excuse me, is carried out. That's in Phase 1 and in Phase 3.

And in Phase 1, as I mentioned in my earlier answer, we try to remove any loose radionuclides that we can from surfaces or from withinside equipment. So there is a cost associated with applying cleaning chemicals and tasks of teams to try to remove -- this is a fairly routine work. It's the type of task we carry on routinely at Point Lepreau even during operation.

Then again in the final stage in the final dismantling operation in Phase 3 we again do a survey of the radionuclides, which as I mentioned earlier by this time would be down by about a factor of a hundred, and any residual decontamination work that needs to be done is carried out at that time.

Q. - Et puis la question spécifiquement c'était est-ce que vous avez besoin de décontaminer les sols, la terre qui est sur le site? Est-ce que c'est une nécessité? Et si oui, est-ce que c'est dans le coût?

MR. GROOM: The answer to your question is that it's not expected to be a must. It's an issue -- we have criteria in terms of the allowable concentrations of radionuclides that are allowed in the soil even today. And if we find evidence that we exceed those criteria we will then clean them up. The -- as Mr. White presented in his evidence, we find consistently when we do these sorts of surveys that we are at least a factor of 100 to 200 below the allowable limits consistently at Lepreau. So we don't anticipate that this will be a problem.

We do have planned -- primary areas where we plan to currently decontaminate are in the areas where the radioactive equipment is contained currently.

Part of the exercise though will be to do very careful surveys in Phase 1, repeat them in Phase 2, repeat them in Phase 3, to determine exactly where the radioactive species are and to ensure that our plans to deal with the removal of these things are appropriate and adequate.

But there will be criteria identified by the nuclear regulator which must be met before we can declare that the job is complete.

Q. - Et puis, toujours dans l'esprit de comprendre l'ensemble des coûts reliés à la décontamination. Avez-vous déjà trouvé des traces de radioactivité dans la région envoisinante, soit l'eau ou les sols, la vie aquatic dans la région environant de Point Lepreau?

MR. GROOM: We did address this in an earlier comment, we do routinely monitor for all of these areas that you have identified as a part of our ongoing environmental monitoring program. We have not found any abnormal levels of radionuclides in any of these areas which you have identified.

We would continue to carry out these sorts of monitoring throughout this period, and until the site has been declared at the end of the Phase 3 decontamination period to be acceptable by the regulator. Before we would identify that it was now suitable for industrial use and before we would stop doing these sorts of environmental monitoring programs.

These, I might add, are included in our costs, our operation and maintenance cost estimates that we talked about earlier.

Q. - C'est par malfortune on devait en trouver. Est-ce que vos assurances prévoit la couverture, la décontamination de soit ces sols ou ces eaux dans la région?

MR. WHITE: Insurance isn't primarily set up for those purposes. This is an activity that's part of decommissioning. And it is done under regulation requirements of the CNSC. And we would have to meet the licencing plan that is put in place for decommissioning. And the CNSC would be the final authority on determining our standard of meeting that.

Q. - D'accord. Mais vous -- il en avait que votre objectif de remettre le site et les environs dans un état qui pourrait acceuillir une opération commercial ou une opération de n'importe quel genre d'ici à 2050. La question était si par malfortune on découvrait des problèmes de contamination et qu'on devrait procéder à un nettoyage, est-ce que c'est prévu soit dans vos assurances ou dans vos coûts de 9.1 million que ce problème pourrait être addressé?

MR. WHITE: Well, again, the method for dealing with those kind of issues today is to provide certification at the end of the process that, in fact, the sites have been appropriately cleaned up. And that they meet current standards for turning them back into commercial facilities.

And that would be part of a license with the CNSC. And it would require validation and acceptance of them at the end of that process. And so otherwise we wouldn't be able to turn the site back to commercial operation.

Q. - Okay. Bon, je vais essayer de reposer ma question une dernière fois, mais d'une autre manière. J'essaye de comprendre quels sont vos assurances? Quel est la portée de vos assurances?

Par exemple, est-ce que les assurances, j'ai eu l'impression, couvrent les employés d'Energie Nouveau-Brunswick qui travaillent à Lepreau?

MR. WHITE: We have a number of insurance policies as was discussed in evidence earlier last week. We have comprehensive general liability policies. We have all risk builder policies. And we have nuclear liability policies. And these kinds of policies would continue during this decommissioning period.

MR. GROOM: I might add too that we have had independent nuclear insurance agents review our insurance strategy on Point Lepreau. And most recently when they have looked at the work which Lepreau has carried out for reviewing the condition of the plant, condition assessments of the plant, our -- our plans on refurbishment, the comment that we got is that they have not seen anybody in the nuclear industry who carried out such a comprehensive and thorough review and evaluation and are competent that our ability to manage such things as -- as radiation incidences as you are trying to refer to are robust and they think very effective.

Q. - Monsieur le Président, j'essayais de -- peut-être qu'il y a des informations qui vous manquent, ou peut-être vous avez déjà établi à la Commision la réponse à ces questions, mais j'essaye de comprendre si oui ou non --

CHAIRMAN: Mr. LeBlanc, I will interrupt you because there was very extensive cross-examination by the Conservation Council.

I believe you have been provided with a copy of the transcript each day.

Q. - Malheureusement je n'ai pas reçu ceux du Conseil de Conservation, mais j'ai reçu ceux-là de jeudi dernier de M. Gillis. Mais si la réponse a été fournie, j'accepte la réponse, oui.

CHAIRMAN: Well I don't know precisely what your questions are. I can tell you that there was very extensive cross-examination in reference to the various policies which the applicant carries.

Now it's four minutes to 11:00. And I suggest you ask the specific question again that you want the witnesses to answer and they will respond to it. And in the future if you are not present perhaps you can make arrangements so that you can get the transcripts forwarded to you by e-mail or whatever.

WeQ. - Oui. Je pense qu'il y a une procédure d'établie pour recevoir les transcriptions. Je ne sais pas pourquoi je n'ai pas eu ces transcriptions-là. Mais je veux simplement conclure avec la dernière question sur ce sujet. Puis si vous avez vous-même la réponse ou si Energie Nouveau-Brunswick veut la remettre -- veut me la communiquer, ça conclurait cette question.

Alors, je veux simplement savoir si les assurances couvrent la décontamination du sol, les sols ou les eaux en cas d'accident? Et si non, est-ce que c'est nous les payeurs de taxes du Nouveau-Brunswick qui couvrent ces coûts?

MR. WHITE: After a site has been declared acceptable for return to commercial operation by the CNSC we wouldn't maintain continuing insurance coverage for those other than our normal corporate general liability policies.

Those policies that are necessary to cover radioactive issues up to declarations of complete and ready to return to commercial operation would be in effect up until that time. But we wouldn't continue to carry those. And I think that is what you are after other than our general liability policies.

CHAIRMAN: All right. The Board is going to take a 10 minute recess.

MR. LEBLANC: J'avais fini, monsieur le Président. J'avais fini. Merci beaucoup. Et merci à M. Rod Gillis.

(Recess)

CHAIRMAN: Okay. Mr. Gillis?

MR. GILLIS: Thank you, Mr. Chairman.

<u>CROSS-EXAMINATION BY MR. GILLIS</u>:

Q. - Ms. McKibbon, you weren't here last Friday. And I had asked some preliminary questions of other members of the panel. Have you had a chance to review all of this document A-16 prior to your appearance before this panel?

MS. MCKIBBON: Yes, I did.

Q. - And likewise -- your background is that of a chartered accountant?

MS. MCKIBBON: Yes.

Q. - We have filed here -- and I forget the exhibit number. Mr. Hashey provided this morning NB Power's response to undertaking on financial forecast. You have seen that have you?

MS. MCKIBBON: I have not had an opportunity to review it, no.

Q. - Are you familiar with the Dominion Bond Rating Services? Generally do you know what they do?

MS. MCKIBBON: Yes, I do.

Q. - And I gather since you are familiar with this document A-16 you are familiar with the quotation from the Dominion Bond Rating Services, is that correct?

MS. MCKIBBON: You would have to refer me to the point in the documentation.

Q. - I think it is slide 25. You are generally familiar with that statement?

MS. MCKIBBON: I have seen it in the presentation.

Q. - I see. Have you read the actual publication by Dominion Bond Rating Services Limited?

MS. MCKIBBON: No, I have not.

Q. - I see. Okay. Last Friday -- and I explained to the members of the panel where I was coming from. I mean, I agree with the refurbishment of Point Lepreau, but not with this contract because there is an unacceptable risk. And I started going through it by identifying the parties. And the party I'm on was NB Power and next it will be AECL.

We had left off last Friday -- I think that there are some 700 employees of NB Power that work at Lepreau or work in relation to Point Lepreau, is that your understanding?

MS. MCKIBBON: Yes.

Q. - And a number of those individuals including the members of this Panel I gather were involved with the Phase 1 and Phase 2 planning, isn't that correct?

MS. MCKIBBON: Certain of them were. I was not.

Q. - And maybe, Mr. Groom, that if the decision is made not to proceed with the refurbishment of Point Lepreau, how many members of this Panel that would be without a job, in the longer term?

MR. GROOM: Yes. I don't know the exact number. I would have to go back and --

Q. - I see.

MR. GROOM: -- identify what that is.

Q. - And Mr. Eagles, would he still have his job, if the decision is not to proceed with --

MR. WHITE: Mr. Eagles would not have his job as he currently has it today as the Refurbishment Director.

Q. - And we wouldn't need a Vice-President Nuclear, would we, Mr. White?

MR. WHITE: If we don't have a nuclear plant I would suspect we don't need one, sir.

Q. - And I believe it was you and Mr. Eagles that went to the Board of NB Power sometime ago with respect to the refurbishment of Point Lepreau, is that not correct?

MR. WHITE: Yes. I do on a regular basis.

Q. - I want to change my line of questioning now and deal with another party to this contract that I'm concerned with. That party is AECL. I gather AECL, to the best of this Panel's understanding, has some 40 years experience with the CANDU reactor, is that correct?

MR. WHITE: It's in the right order.

Q. - AECL was the party that designed the CANDU-6 reactor, wasn't it?

MR. WHITE: That is correct.

Q. - Designed Point Lepreau?

MR. WHITE: The nuclear steam-supply plant of Point Lepreau.

Q. - The nuclear steam-supply plant. That is the heart of Point Lepreau, isn't it?

MR. WHITE: There is a nuclear steam-supply plant. And there is the balance of plant. Yes. That is the heart of the plant.

Q. - And when Point Lepreau was built, as I understood it, NB Power accepted the design from AECL and the fact that AECL would supply some expertise and materials. But NB Power wanted to be its own general contractor. Was that the philosophy of the day?

MR. WHITE: NB Power was the general contractor for the construction of Point Lepreau, correct.

Q. - And they relied to a large extent at that time upon AECL for technical advice with respect to the construction?

MR. WHITE: Of the nuclear steam-supply plant, correct.

Q. - And how long was it to take to build it compared to how long it actually took to build it?

MR. WHITE: As per evidence from last week, I think I said that it started in fall of 1974. It was intended to be completed in the fall of '79. And it was finished construction in about September of '83.

Q. - So it was about four years late?

MR. WHITE: Sorry, '82.

Q. - Three years late?

MR. WHITE: Yes.

Q. - And that is with all this assistance from AECL on the design and their expertise, wasn't it, Mr. White?

MR. WHITE: That's correct. Includes the time for the boiler rework.

Q. - I see. Whose fault was that? Whose fault was that, the boiler rework?

MR. WHITE: The manufacturing problem.

Q. - You didn't give me a company name?

MR. WHITE: The boilers were manufactured by Babcock & Wilcox.

Q. - Now before entering into these contracts that are the subject matter at the heart of these hearings, I gather this Panel actually determined the financial strength of AECL, didn't it?

MR. WHITE: Please identify the time frame.

Q. - Well, what is the first date of the first contract that we are concerned with here in the refurbishment and retubing?

MR. WHITE: In refurbishment the first contract with AECL was in 2000.

Q. - Okay. And the retubing?

MR. WHITE: In 2000.

Q. - So the time frame let's say from 2000 until now?

MR. WHITE: Yes.

Q. - Now with that time frame I gather this Panel wanted to ensure the financial strength of AECL?

MR. WHITE: Correct.

Q. - What did you do to do that?

MR. WHITE: We went to the general counsel of the Federal Department of Justice. And the general counsel of the Federal Department of Justice on the 28th of May of this year has sent us the following statement.

It is my considered opinion that the contractual commitments made by AECL with respect to Point Lepreau retubing and refurbishment services are valid and enforceable against AECL and would be valid and enforceable against its principal Her Majesty The Queen in the Right of Canada in the event of default by AECL in the fulfilment of those commitments.

Q. - Now could you tell me why you would be concerned to get an opinion from a lawyer that is working for Ottawa?

MR. WHITE: We wanted to have appropriate review of the risks and ensure ourselves that AECL, not only as a corporation, would be backed up as an agent of the Crown by the Crown.

Q. - I see. So what you did is you went to the lawyer who works for the Crown to get an opinion from him to say that the Crown would be responsible. Is that what you did?

MR. WHITE: We went to AECL and said we want validation of the fact that in fact as agent of the Crown you are backed up by the Crown in the contracts that we will sign with you.

Q. - I see. So you made the initial request of AECL that we want some assurance that the Federal Government will support AECL if necessary?

MR. WHITE: Yes.

Q. - If I understand it correctly, the Province of New Brunswick provides a guarantee to NB Power. We have heard some reference to that this morning in what his Chairman read. Is that correct?

MR. WHITE: We borrow the money that -- the corporation borrows through the Province, yes.

Q. - Now would it not occur to you all you simply need is a guarantee from somebody in the Privy Council, some Federal Cabinet Minister, guaranteeing that AECL would perform any of its contractual obligations including its warranty and guarantees, like NB Power gets from the Province?

MR. WHITE: Well, we wanted to ascertain from AECL that in fact their financial security was good. And --

Q. - I see.

MR. WHITE: -- we followed that to the letter that I just read to you.

Q. - I see. Did anybody ever advise you that look, the Federal Government will not provide a written guarantee concerning AECL's obligations in any way, shape or form?

MR. WHITE: I didn't get legal advice on that. I read you the legal advice.

Q. - Well, you know what, if a lawyer expresses an opinion to you and it is wrong, you may have a claim against the lawyer for negligence but that is your lawyer.

Now did you pay this lawyer from the Government of Canada for this legal opinion that you are relying upon, that the Government of Canada stands behind AECL?

MR. WHITE: We took a due diligence process to ascertain whether the contracts of AECL would be backed up.

Q. - Did you understand my question, Mr. White?

MR. WHITE: I believe I did, sir.

Q. - Could you answer the question please?

MR. WHITE: Did I pay a lawyer?

Q. - Did you pay a lawyer, not a liar, to write that opinion? I want to establish that there is a contractual relationship so NB Power could sue the lawyer involved if necessary, if his opinion is wrong.

MR. WHITE: My understanding is that we did not pay this lawyer.

Q. - I see. Okay. I gather you are familiar with the financial statements of AECL?

MR. WHITE: Not particularly.

Q. - I see. Are they here in one of the documents?

MR. WHITE: I think there are AECL annual reports in some of the evidence, yes.

Q. - Yes. And what does that show with respect to contributed surplus?

MR. WHITE: Well I cannot answer that because I haven't look at those documents.

Q. - I see. Ms. McKibbon, you are a chartered accountant. What is contributed surplus?

MS. MCKIBBON: It's the accumulated net earnings net of any dividends that a corporation would have accumulated over its operations.

Q. - Ms. McKibbon, have you looked at the financial statements of AECL before relying upon --

MS. MCKIBBON: The scope of my job would be around the operational accounting at Lepreau. It would not include the relationship with AECL.

Q. - Did AECL make money last year or lose money? Does anybody on this panel know?

MR. WHITE: I haven't looked at it from the financial statement point of view, so I don't know the answer to that question.

Q. - Well, maybe -- retained earnings. Retained earnings would represent what, the shareholder's equity so to speak in an ongoing concern, Ms. McKibbon?

MS. MCKIBBON: Yes.

Q. - What is the extent of the retained earnings of AECL to stand behind some of these guarantees that could amount to some $200 million?

MS. MCKIBBON: I don't know the answer to that question.

MR. HASHEY: Would you like the witness, Mr. Gillis, to refer to the -- do you want them to refer to the exhibits? If you do, no problem.

Q. - Okay. Well which one would you suggest?

MR. HASHEY: No. I'm not suggesting anything. I say if you are referring though to an exhibit, maybe in fairness you should ask the witness to reference it.

Q. - I think it is A-6, tab 1 (a) at page 37 for the annual report ending March 31 of the year 2000/2001. Does that assist you perhaps? I thought you fellows would be familiar with the responses to interrogatories. But I was mistaken.

Looking at this, I read that that AECL's income for the year 2001 was only $11,800,000. Is that your reading, Ms. McKibbon?

MS. MCKIBBON: Yes.

Q. - And if you go to page 36 we can see what the total shareholder's equity of AECL would be. My reading of that is about $83 million, is that right?

MS. MCKIBBON: That's correct.

Q. - I see. Now we can get into the statement a little further. There was some evidence this morning, Mr. Groom, about Chalk River being in the dormancy stage with respect to decommissioning. Has AECL been funded for the cost of the decommissioning? Or is it paid yearly by the Federal Government?

MR. GROOM: I don't know the detailed answer to your question.

Q. - Have you looked at the financial statement to find out that in fact they haven't funded for that decommissioning?

MR. GROOM: No, I haven't looked at the financial statement for that information.

Q. - I see. So I can understand, Mr. White, with that type of financial background of AECL why you would want some comfort that there is somebody else behind AECL that would stand behind them in the event they couldn't honor their guarantee. Is that why you fellows went off to Ottawa to try and get a comfort letter or went to AECL to get a comfort letter?

MR. WHITE: The comfort letter that is referred to is to the CNSC.

Q. - You couldn't even sue on that?

MR. WHITE: Sorry, I'm not a lawyer. So you --

Q. - Well, did it occur to you to get some legal advice with respect to the validity or the responsibility of the Federal Government to support AECL before entering into these contracts?

MR. WHITE: We have legal advice in this hearing represented by counsel. And we have corporate legal advice. And they provide the legal advice to us, yes.

Q. - Did they provide you legal advice with respect to whether or not the Federal Government would be obliged to stand behind AECL?

MR. WHITE: They advised us that we should seek that advice which I read to you this morning.

Q. - So they advised that you should see that advice. So you went to AECL saying look, our lawyers won't give us this advice, can you give us this advice? And AECL said trust us, we will get you a letter. Is that about how it happens?

MR. WHITE: No.

Q. - Well, this letter that you have read from, you say that was from a lawyer with the Federal Government written to the Canadian Nuclear Safety Council?

MR. WHITE: It is a Mr. Gene T. T. Trotman, General Counsel, Federal Department of Justice, Booth Street, Ottawa.

Q. - And who did he write the letter to, express the opinion to?

MR. WHITE: Allan Hawryhuk, General Counsel and Corporate Secretary, Atomic Energy of Canada Limited, Speakman Drive, Mississauga, Ontario.

Q. - And so you didn't have to pay for that letter. But your lawyers told you that you should get an opinion from somebody, is that right?

MR. WHITE: In the contracts we set up with AECL we required them to provide validation that in fact they, from a financial point of view, would be supported as an agent of the Crown by the Federal Government. And they should provide evidence of that.

Q. - Is there any letter from a lawyer in the Department of Justice written to AECL saying that look, the Government of Canada stands behind AECL? That letter isn't written to AECL.

MR. WHITE: Yes, it is.

Q. - Oh, I thought it was the Canadian Nuclear Safety. I'm sorry.

MR. WHITE: It's written to Mr. Allan Hawryhuk, General Counsel and Corporate Secretary, Atomic Energy of Canada Limited.

Q. - Oh, okay. And with this letter did AECL let the federal lawyer know that their intention was to share this letter with NB Power?

MR. WHITE: It is my understanding that AECL got this letter on our requirement for validation that they were supported by it. And therefore I would assume, I don't know, that they told them why they wanted it.

Q. - Well, there is a particular reason I ask that question from a legal perspective. So what you are saying, this panel doesn't even know whether or not the lawyer that wrote that letter was aware there would be a circulation beyond the general counsel for AECL?

MR. WHITE: If you want me to swear that I know that he was told, I can't do that. But they knew what the reason was that we wanted the letter.

Q. - I see. Well -- and I will leave this party, this AECL party in a moment. But there is a lot of legal problems I have with what you have done so far but you can get legal advice. Did you ultimately get an opinion from anybody, other than this letter, directed to NB Power, saying that the federal government would support AECL?

MR. WHITE: Well, we have AECL's lawyer in this room. And he has given us advice that this would be the support and that he would obtain the appropriate letter for us.

Q. - I see. And we will get to the contracts in a moment. In drafting the contracts I gather there was a budget for legal expense in completing the draft of the contracts that are the subject matter of these hearings, is that right?

MR. WHITE: Development of these contracts was part of the 40 million predefinition work that is required here.

Q. - And so I gather you used lawyers to the extent of whatever the budget disclosed to draft the four contracts?

MR. WHITE: We used them to review the contracts to ensure that we have appropriate legal wording and legal coverage for the contracts that we wish to put in place.

Q. - Well, could you tell me who drafted the contracts? Who wrote it initially? Maybe that is the way to put it. NB Power, or AECL or someone else?

MR. WHITE: We did it jointly.

Q. - All right. So -- and it took some time to develop this jointly?

MR. WHITE: Yes.

Q. - And the lawyers that you used, who were they, for the drafting of these contracts? I'm not concerned with the Plant Performance because that seems to be rather thin.

MR. WHITE: We used our corporate lawyers internally. And where they believed necessary they sought outside counsel.

Q. - Who was the outside counsel?

MR. WHITE: I believe Mr. Morrison consulted with us on the refurb contract.

Q. - Was he the only outside counsel, Mr. White?

MR. WHITE: I would have to consult to find if that was the only one, but I believe that was.

Q. - Who would you have to consult with?

MR. HASHEY: Mr. Chairman, we have no problem trying to get this information and providing it to Mr. Gillis following the break. That might be the easiest way.

MR. GILLIS: All right.

MR. HASHEY: Additional questions -- I mean I'm sure the normal --

MR. GILLIS: Sure. No, I --

MR. HASHEY: -- house counsel for NB Power involved in interacting contracts and getting assistance when necessary. You know, we are not trying to block any questions here. But it's a matter of obviously these people would not -- not have all of that information.

MR. GILLIS: I have no objection with that, Mr. Chairman.

CHAIRMAN: You will acquire that. Any additional?

Q. - On that, sure. The budget of the 40 -- how much of the 40 million was paid for the drafting of these contracts?

MR. WHITE: I don't have a number in the top of my head for that. The contracts and the PUB processes and the legal processes were all wrapped together.

Q. - I don't think so. I thought there was a separate budget for drafting contracts and it was $400,000, from what I reviewed. It didn't say anything about PUB process. Does that ring a bell?

MR. WHITE: No, sir.

MR. HASHEY: Oh, if it was only true. Mr. Gillis, if you want that information, we will try and get it for you.

MR. GILLIS: It may have been somebody else, Mr. Hashey, who got the money, not you.

MR. HASHEY: It wasn't me.

Q. - Well, maybe Mr. White, if you would turn up the Phase 1 budget with respect to the drafting of contracts.

And if you want to do that after the lunch hour and just tell us how much it was and to whom it was paid?

MR. HASHEY: Do you want a budget? Or do you want --

MR. GILLIS: No. I have got the budget figure as 400,000, Mr. Hashey. But I will get Mr. White to confirm it for the drafting of these contracts.

MR. HASHEY: We will try to give you an answer if we can get it over lunch.

Q. - I wanted to turn back -- still dealing with AECL and its financial viability, if you continue back with A-6, the document, the financial statement. And if you turn over to page 47, we have a five-year consolidated financial summary of AECL.

Now if I read this correctly, AECL had a great year in the year 2000. They made $43 million. But the year prior to that they lost 15 million. In '98 they only made 2 million. In '97 6 million.

Did it cause any concern with you folks in dealing with AECL that look, they seem to make less money than we do? And I do leave out the year you lost your 400 million.

Did that cause you any concern?

MR. WHITE: What was important to us was the ability of AECL technically to be able to do this work and whether they were financially backed up by the crown, as an agent of the crown.

Q. - Maybe I will ask this. And I will have to ask the other following panel.

Did anyone on this panel or anyone at NB Power go to AECL saying, we would like to have a guarantee from the Government of Canada supporting AECL's obligations? Yes or no?

MR. WHITE: Part of establishing the memorandum agreement for development of the contracts, we required AECL to be able to provide us with assurance that in fact they were financially solid and that they would be backed up as an agent of the Crown.

Q. - I see. Maybe you didn't understand my question. Or maybe you are just not capable of answering it.

Did you understand my question, Mr. White?

MR. WHITE: Would you repeat it please?

Q. - Okay. I will try my best. Or I can have it played back. Whatever you would prefer. Which is your preference, Mr. White?

MR. WHITE: Please repeat your question, sir.

Q. - Did anyone, to the best of your knowledge, on this panel or anyone else from NB Power request of AECL that they obtain a guarantee from the Government of Canada saying that the Government of Canada would support AECL, particularly in relation to the warranties and guarantees to be provided?

MR. WHITE: I think --

Q. - And I asked you to answer yes or no?

MR. WHITE: No.

Q. - Thank you. I just want to get on the record some factual background with respect to businesses today. In business today you would agree that unfortunately it appears more commonplace that large corporations appear to walk away from their subsidiary corporations.

I'm just thinking, for example, of Teleglobe being walked away from by BCE.

MR. HASHEY: I think that is an unfair question to be addressed by the panel.

Q. - I agree. Do you agree with me that you have observed in the past decade that government does cease to support certain of activities that the government has been involved with, such as airports or the Coast Guard?

MR. WHITE: I'm not sure that I'm qualified to answer that.

Q. - Well, to the best of your understanding. I gather you must use an airplane once in awhile, maybe out of Fredericton.

Is that run by the Federal Government under the Department of Transport? Or is there a private organization that operates that airport now?

MR. WHITE: I'm certainly well aware that the government changes its policies over time.

Q. - That is what I'm after. Now if the Government of Canada decided to change its policy with respect to the support of AECL, where would that leave NB Power if these contracts continued on?

MR. HASHEY: Is this not a legal question, Mr. Chairman?

Q. - Well, I'm sure it is something they have done an analysis with respect to the risks. That is what I'm after.

What analysis did you make of that?

MR. WHITE: We have taken advice from our counsel as to what is the appropriate thing for these contracts with regard to AECL.

Q. - And that counsel is just the fellow sitting beside Mr.

Hashey, for some several hundred million dollars?

MR. WHITE: I told you it was corporate counsel.

Q. - Corporate counsel?

MR. WHITE: And corporate counsel sought advice as they thought necessary.

Q. - I see.

MR. WHITE: And we have an obligation to supply those names.

Q. - Now if they have made a mistake and given you bad advice -- lawyers carry liability insurance. How much liability insurance is carried by corporate counsel?

CHAIRMAN: Mr. Gillis --

MR. GILLIS: No. I'm not after Mr. Hashey's. I'm after corporate counsel.

CHAIRMAN: Oh, I see. All right. If you know, witness, answer. If you don't, say you don't know.

MR. WHITE: I don't know how much liability insurance corporate counsel carries.

Q. - If any? That is the rest of the answer. If any?

MR. WHITE: I don't know the answer to that question, sir.

Q. - Now those are the parties. We have NB Power who makes a little bit of money and AECL that makes a little bit of money, entering into this contract.

Now I want to deal with the project itself for a few moments. The proposal I gather is to retube and refurbish. Would that be the heart of the proposal?

MR. WHITE: Correct.

Q. - And the ancillary contracts would be the supply contract and the performance guarantee?

MR. WHITE: The performance guarantee is an integral piece of retubing and refurbishing from an ongoing point of view. But yes, they are the other two contracts.

Q. - And the plan is to get another -- how many years did we say?

MR. WHITE: Looking for 25 to 30 years. And these contracts are set up for 25 years.

Q. - And the only other option is the combined cycle natural gas. Is that the other one that is in the running, so to speak?

MR. WHITE: I believe the evidence that was presented at the front by Panel B indicated that there were three options.

Refurbishment was one. Natural gas was two. And the Orimulsion or additional Orimulsion unit was a third option.

Q. - I will have to go back and read that Panel B again. Was Orimulsion cheaper than the natural gas?

MR. WHITE: That will be answered by Panel B. But the evidence that was given here was the most economic but it didn't meet the carbon requirements.

Q. - Now just assuming that we are dealing with the combined cycle natural gas unit, how long from today would it take to study, design, construct and start up such a unit? I don't know.

MR. WHITE: We believe that it can be done within the time frame, assuming that there would be gas available, which is not -- a lot of uncertainty about today.

Q. - I just want to know how long?

MR. WHITE: I said I don't know the answer. I believe the committee, we have stated it can be done within the time frame.

Q. - What is the time frame?

MR. WHITE: Between now and 2006.

Q. - So to start it would be three and a half years? Would that be a fair estimate?

MR. WHITE: Well, it is June the 3rd today. And we said we would finish Lepreau's life in April of 2006, March 31st of 2006. So that is just short of four years, I guess.

Q. - Four years. Okay. Now if there was a decision, whether it be today or several years from now, to build a combined cycle natural gas unit, assuming gas is available, it takes four years and the cost of replacement power in today's dollars was what, about 200 million a year?

MR. WHITE: For Lepreau's output, yes.

Q. - Okay. So a combined cycle gas unit, to provide comparable replacement power, you would need about four years, about $800 million?

Perhaps you don't understand where I'm coming from. Hypothetically let's say Lepreau --

MR. WHITE: I didn't understand your question, sir.

Q. - I beg your pardon?

MR. WHITE: I didn't understand your question.

Q. - All right. Hypothetically let's say Lepreau doesn't work and you have to build a combined cycle gas unit from a greenfield. You told me it takes four years. And in that four-year period the cost of electric power, replacement power would be 200 million a year for four years is $800 million.

Is that how I would do a calculation?

MR. WHITE: 200 million is based on what we have to use for replacement for that power today.

Q. - Right. Let's say that your refurbishment plan fails, that you don't get it brought on line, there is technical problems. And I will get into all of that.

And the decision is made, we are going to stop and we are going to build a replacement generator of comparable magnitude with respect to output. That is the combined cycle unit.

And you told me it is going to take four years. The cost of replacement power using today's dollar figures is 200 million a year, correct?

MR. WHITE: It is in the right ball park, yes.

Q. - And for a four-year period I see the purchase price of replacement power is about $800 million while you build this new gas unit after Lepreau would fail.

Would my math be correct?

MR. WHITE: Well, I don't know when you are assuming that Lepreau would fail.

Q. - Well, we will get into that. But I'm assuming your refurbishment plan doesn't seem to work or AECL has financial difficulties. There could be many things.

And I just want to determine the magnitude of the risk in not going with the technology that is rather straightforward.

MR. WHITE: I would be glad to answer your question, sir, if you would be specific as to what you are asking.

Q. - I'm trying to determine the extent of consequential loss that would occur if the plant failed. By my calculations 800 million.

And I want to then compare that to how much of a guarantee of that 800 million you are going to get back from AECL if any?

MR. WHITE: You are not very specific on your question, sir.

When does the plant fail?

Q. - Right after you basically try to turn it on, it doesn't work. Use that. That is your worst case scenario.

MR. WHITE: You are talking about September 2007?

Q. - Yes. And to put in a replace unit would take four more years. That would take us to 2011. And the cost of replacement power for that four-year period would be how much?

MR. WHITE: I don't know that we have done that calculation.

Q. - Well, you must work out --

MR. WHITE: Panel B would answer that question, if you want to know.

Q. - I see. So you folks haven't done that calculation. You haven't considered that?

MR. WHITE: Our project is on the basis that we would be successful in meeting September 2007 and we have liquidated damages for delays beyond that.

Q. - All right. And do the liquidated damages, and I'm going to get into it in detail, total $800 million for replacement power?

MR. WHITE: The liquidated damages are never intended in the contract to cover those consequential damages. And they won't cover those kinds of things. You can't get coverage for that which is what we identified in our opening statements.

Q. - When you say you can't get coverage for that, you mean AECL wouldn't enter into that agreement, is that what you are saying, or are you talking insurance coverage?

MR. WHITE: Most -- some intervenors have assumed that you can get warranty coverage that will cover all of these costs. We identified in our opening statements that that is not normally what happens in the utility industry and that if you wanted to you could insure for that kind of coverage but it would be exceedingly expensive.

Q. - Well eventually I want to determine what that would be. Exceedingly expensive, you must have quantified it. Is it going to cost an extra 100 million, an extra 300 million?

MR. WHITE: We are currently in negotiations with our insurance companies to look at our profile as a company as to whether we would want to purchase replacement insurance and as to what level that replacement insurance could be ascertained at. We do not have that information at this point in time, but normally a utility would not buy replacement power coverage because it is too expensive. It normally will use its alternative assets to provide coverage under those circumstances.

Q. - But you don't have any. They are all used up to their capacity. That's why you have to go through this refurbishment or look at a combined cycle unit or Orimulsion?

MR. WHITE: In our winter time peaks, as Panel B will explain to you, in detail I'm sure, we have the need for all of this capacity. In spring, fall and summer times we obviously have capacity that is above and beyond what was needed for the load in those periods of time and that allows us to deal with exports.

Q. - You have talked -- I think maybe you used this word, consequential damage?

MR. WHITE: Yes.

Q. - What do you understand consequential damage to be?

MR. WHITE: Well replacement power would be considered under the terms of consequential damage. It's not the direct damages under a contract.

Q. - Did anyone in this panel or anybody else from NB Power make a request of AECL for a clause that would provide for consequential damage, other than just saying there is none?

MR. WHITE: I think in the contract negotiations we looked to find the best combination of price of the contract and liquidated damages, so that we had a strong a contract as we can. But obviously those are negotiated contracts and you come with a balance that both parties find acceptable to them at the end of the day.

Q. - So if I understand your answer is that look, we could have negotiated something with respect to consequential damages but it would have increased the price of the contract, is that right?

MR. WHITE: AECL specifically excluded consequential damages.

Q. - I know they did. Did you ask to have it put in before they wrote it out?

MR. WHITE: I think we probably would have discussed that in negotiations that our desire would be to cover that and they flatly identified that they would not include that.

Q. - Now did that not cause you fellows some concern, that look, our contractor that's going to enter into this hard money contract with us won't even agree to cover us for the cost of replacement power if they screw up?

MR. WHITE: As we said originally in our opening presentation that you won't get those kinds of coverages unless you pay a significant premium for them.

Q. - That's what I want to find out. What is that premium to compare apples to apples?

MR. WHITE: I don't know, sir.

Q. - Well did you ever ask what the premium would be?

MR. WHITE: Yes, we have. I just explained to you that we have asked our insurance company --

Q. - I'm not asking for --

MR. WHITE: -- to do the study, to identify that, and they are currently in the process of doing that.

Q. - I'm not after your insurance company. I'm after AECL. How much more did AECL want for this contract so that they would provide for consequential damages? That's replacement power in the event it don't work. How much more?

MR. WHITE: AECL said they would not put consequential damages in the contract.

Q. - Surely they would have at a certain price?

MR. WHITE: They told us that they wouldn't.

Q. - And you just said, okay, fellows, that's fine. We will give you a hard money contract?

MR. WHITE: It went through a negotiation process and AECL's position on that was that they wouldn't include that in the contract.

Q. - Well you use another word here, liquidated damage. What did you understand liquidated damage to be?

MR. WHITE: In this case liquidated damages covers a period of time past the contractual completion date.

Q. - But what is liquidated damage as you understand it? You tell me what period it covers but what type of damage?

MR. WHITE: It covers for cost that our company incurred because AECL did not complete the work in accordance with the schedule and the contractual agreements that we have.

Q. - So would liquidated damage be that if it was to be complete let's say by 2007 and AECL took an extra three years to do it, they would only have to pay you some liquidated damages? Is that what you understand?

MR. WHITE: That's what the contract says today.

Q. - And what is the extent of the liquidated damages they have to pay you if they take an extra three years as it did when they built Lepreau in the first place?

MR. WHITE: Liquidated damages is capped $10 million on the retube contract and $5 million on the refurb. contract.

Q. - So 15 million. And the liquidated damages for that three year period would be nowhere near the consequential damages that you will be looking at of some 600 million, isn't that right?

MR. WHITE: We both agree on that.

Q. - Now those are the damages for construction and delays in construction. Now let's just talk generally. What do you mean by -- and I think you used the word warranty and guarantee at different parts of your testimony. What do you mean by the word warranty?

MR. WHITE: Well if you want to refer to the sections in the contract we can read them.

Q. - I know I can read them and I have read them, but generally what is the warranty as you understand it?

MR. WHITE: Warranty provides a guarantee against the design, materials and workmanship that was provided for the contract.

Q. - So if there is a fault in the design the warranty is to address that?

MR. WHITE: That's correct.

Q. - And usually it means fix it and pay the damages that are suffered as a result?

MR. WHITE: Warranty as defined here fixes the design issue and puts the fix in place.

Q. - In your definition of warranty you use the word guarantee, but guarantee also has a much broader definition as you understand it, is that correct?

MR. WHITE: Well as I say the definitions of those terms are the ones that are contained within the contract documents.

Q. - Well what -- just generally with respect to the warranty, what is the warranty provision under the retube agreement, they fix it. Failing that you get to fix it and charge them back what it cost you?

MR. WHITE: Warranty provisions are two years on materials and workmanship and up to 10 years on design.

Q. - Two years on materials. Mr. Pilkington, do you own an automobile?

MR. PILKINGTON: Yes, I do.

Q. - The year and make?

MR. PILKINGTON: A 1997 Dodge pick-up truck.

Q. - Was there a warranty on that when you bought it?

MR. PILKINGTON: There was.

Q. - 10 years on the power train?

MR. PILKINGTON: No, I didn't buy the vehicle new.

Q. - I see. Do any members of the Panel own a --

MR. HASHEY: You obviously drive a Hyundai.

Q. - Well do any of the members own an imported automobile of this panel?

MR. WHITE: I drive a Ford, sir.

Q. - Mr. Groom?

MR. GROOM: I don't drive a car, sir. Don't own one, I should say.

Q. - So what you are saying to me, Mr. White, is that the warranty that AECL will give in this contract worth millions of dollars is less than what you get on the average automobile?

MR. WHITE: The warranty that AECL has provided here I think is a fairly robust warranty in the power industry. If you get two years on material and workmanship in the power industry from final acceptance that's a good warranty. And they have also given us 10 years on any design changes. That would be equivalent to the same warranty as we got on Belledune.

Q. - I'm going to change my questioning just a bit, still dealing with the contract. If I understand, the contract that we have is -- for the retube and the refurbishment to a large extent is a hard money contract?

MR. WHITE: It's a firm price contract with escalation.

Q. - All right. So firm price, fixed price, hard money contract are one type of contract that you enter into, and the other side of the scale is a cost plus?

MR. WHITE: That would be fair.

Q. - Correct generally. Now generally what you have here are firm price contracts or hard money contracts as I describe it with some escalation for certain components. Is that right?

MR. WHITE: Firm price with escalation, yes.

Q. - And just generally dealing with contracts, and I know that you fellows have entered into contracts with many subcontractors. When you enter into these contracts you get two types of bonds, a labour material payment bond and a performance bond. Is that true?

MR. WHITE: Yes, sir.

Q. - And the purpose of a labour material payment bond is to make sure that your contractor pays all his subs, correct?

MR. WHITE: Basically, yes.

Q. - And the performance bond is that they are going to perform the contract. In other words, build whatever they are going to build. Right?

MR. WHITE: Yes.

Q. - And normally these performance bonds are put out by different bonding companies in Canada. You are familiar with a number of those bonding companies from time to time, having seen them on contractual documents?

MR. WHITE: I'm certainly aware of them, yes.

Q. - And usually the performance bond is for half the price of the contract?

MR. WHITE: A performance bond usually -- that's quite typical what you quote, is intended to cover the monies that you have out there, and what money you think you may need in order to complete the work.

Q. - That's right. All right. Now when NB Power goes out and tenders jobs and has people supply a tender, they have to provide well the tender document. They provide the bonding information at the time of the tender, so when you fellows open your tenders you can say that we can award it to this individual, we have the bonding, it will be in place once we sign the contract. That is generally how NB Power works with its tenders?

MR. WHITE: It's quite typical of the technical specification for a bid, yes.

Q. - In these contracts with AECL did you get a 50 percent performance bond that they will actually build this thing?

MR. WHITE: We have a 50 percent performance bond on retubing.

Q. - And refurbishment?

MR. WHITE: 30 percent.

Q. - 30 percent?

MR. WHITE: Yes.

Q. - And have they put these bonds up?

MR. WHITE: Not at this time. We haven't awarded them the contract.

Q. - But they have to put the bonds up before you will pay them any money?

MR. WHITE: They put the -- they put the bonds in place in a period of time after you have a awarded the contract.

Q. - Well surely you are not going to pay them any money before they put the bonds up, are you?

MR. WHITE: As I said, we haven't put these Phase 2 contracts in place yet and therefore we have not required bonds to be put up before those phases.

Q. - My question is a real simple question, maybe I'm not expressing it well. Under these contracts that you fellows have negotiated so well do you pay them money before they even have to put up a performance bond?

MR. WHITE: We haven't paid the money yet, sir.

Q. - Oh.

MR. WHITE: We haven't awarded the contracts yet. We have only done the frontend work on cost plus.

Q. - No, no. When you award the contracts. Assume that you are going to award the contracts that you negotiated, that you provided to us. Do they have to put the bonds up before you pay them any money?

MR. WHITE: They put the bonds up when we put the contract in place --

Q. - Do you pay them --

MR. WHITE: -- and that's part of putting the contract in place, sir.

Q. - Do you pay them any money before you put the contract in place?

MR. WHITE: We pay them a price on the initiation of the contract, yes. And we put the bonds in place I believe -- if we look in the contracts we will find out within 30 days.

Q. - Well within the 30 days that you have to put up the bond, how much money do you pay them?

MR. WHITE: Well if we will dig out the contracts -- if you refer me to the book I will -- we will look it up.

Q. - Okay. I don't know which book you want to look at. Which contract do you want to look at? I think the figure -- my guess is probably about nine or 10 million bucks you fellows pay them before they even put a bond up. That's just a guess. The way you fellows negotiate.

MR. WHITE: Again, if you want to refer to the contract we will look look --

Q. - Sure.

MR. WHITE: -- at the payment schedule and we can identify precisely --

Q. - Turn them both up and let's look at it. Turn them both up and let's look.

MR. WHITE: Okay. Which book would you like to look at?

Q. - Which one do you want? You are more familiar with the contracts.

MR. WHITE: I am responding to your question, sir. Which book would you like to look at?

Q. - I see. I don't care. Whatever book you want to look at. There is two contracts, the refurbishment and the retubing.

MR. HASHEY: The refurbishment is in A-17. We will get the retube number.

MR. WHITE: What section would you like to look at, sir?

Q. - Whatever section you think will be appropriate to respond to the question.

MR. HASHEY: What is the question, Mr. Gillis?

MR. GILLIS: How much money they end up paying to AECL before the bonds are put up.

MR. HASHEY: Thank you.

MR. MACNUTT: For added reference the retubing agreement is in PNB-9 which is exhibit A-13.

MR. WHITE: I believe on page 21 in book A-17 under refurbishment agreement, you will find the payment milestone schedule.

Q. - Yes.

MR. WHITE: Date of Phase 2 work commencement the payment is five percent of the contract price.

Q. - Which is?

MR. WHITE: And the contract price is 139 million.

Q. - So 6.5 million?

MR. WHITE: Yes, sir.

Q. - And the bond is not put up at that stage?

MR. WHITE: I believe that the bond is put in place within 30 days of that.

Q. - That's what you said. Now more than the 6.5 million, are there more payments that are made to them before they even put up this bond?

MR. WHITE: The second payment is four weeks after the date of Phase 2 work commencement.

Q. - Yes. That's -- four weeks is 28 days, that is less than 30, so how much are you paying them now?

MR. WHITE: Two percent.

Q. - So that is another 2.6 million on top of the 6.5, you have got $9 million you would have paid them before they even have to put up any bond, is that right?

MR. WHITE: It's about right.

Q. - And is there -- at the -- is there an appendix to that agreement with respect to the form of the bond?

MR. WHITE: Yes, there is.

Q. - Yes. Why don't you turn to that and tell me what it says? Is it from a bonding company, is what I'm after?

MR. WHITE: What page would be that be on, sir?

Q. - Well it is an appendix, you agreed?

MR. WHITE: Yes. What page are you referring to?

Q. - I don't have it open in front of me. I'm just going from memory.

MR. WHITE: Well if you could assist maybe we could move along here.

Q. - All right. If you go right to the very end and come back a couple of pages, it's right there. It's a one page document. It's filled with some blanks and it is something from a bank, not even a bonding company, if that helps you.

MR. WHITE: Yes, sir, appendix E. Page E (1).

Q. - That is fine. How much is that bond that you are going to put up?

MR. WHITE: It's $13,983,000.

Q. - And they don't even have to put up the cash, they take it out of their operating line, I would assume, if they have any. You pay them 9 million bucks and they are going to put up a bond of 13 million after you pay them the 9 million, is that about it? Is that how you negotiated this contract?

MR. WHITE: The basis for the bond is to cover uncompleted work. And the work that is going on this would be work that we have advanced monies on prior to actually the work being completed and the work that's going on at this stage is predominantly design work.

Q. - I see. So really my problem, Mr. White, is that for the real world when NB Power enters into contracts they get a labour and material payment bond and performance bond for at least half up front before the contract is started. But with AECL you fellows negotiated a good deal and you gave them 9 million of a $13 million bond when the bond normally would be about 50 million, is that how you negotiate these contracts?

MR. WHITE: The bond is intended to cover the payments that you have made prior to the fact that you have actually received that work. Okay. And this bonding here at this stage in the contract covers design work until that design work is completed where we have made advanced payments on it.

MR. GILLIS: I see.

CHAIRMAN: Excuse me, Mr. Gillis, is this a good time to break?

MR. GILLIS: Oh sure. Any time is a good time.

CHAIRMAN: We will try and be back at quarter to 2:00.

(Recess - 12:30 p.m. - (1:45 p.m.)

CHAIRMAN: Good afternoon. Before we start, this morning the third matter that Mr. Coon brought up, I wanted to get a copy of the transcript to check exactly what it is that he had requested of the Board. And I will read it, "The third matter is there have been several media reports of interviews with members of the provincial cabinet who have by their comments suggested that a decision has already been taken on the refurbishment of Point Lepreau. And we are asking if the Board could seek clarification from the government of New Brunswick as to whether or not that has happened."

I have spoken with my fellow Commissioners and the legislative assembly of New Brunswick has in the Public Utilities Act given the Board the authority and the responsibility to review any refurbishment of the generating facility in excess or $75 million and to make a recommendation to the Board of NB Power. And that is what we are doing. Whether a cabinet minister says something in the press or holds an opinion as to the refurbishment or not is of no consequence to this process.

That is not a government decision. And therefore we will simply proceed with what the statute requires of us and make our recommendation as to whether or not Point Lepreau should be proceeded with in due time.

Now any other preliminary matters? Mr. Hashey?

MR. HASHEY: Mr. Chairman, first of all, the in-camera session concerning the documents that were marked with confidentiality, when do you intend to have that session? Could I ask that?

CHAIRMAN: You can ask it. I will say well, what if we have it, when should it be? And I don't know the answer to that.

It may be that the intervenors, Mr. Hashey, don't need to ask any questions on that. I haven't spoken with Board counsel. I don't know if Board counsel and/or staff have any questions they wish to put on it. But if there is no interest in going into an in-camera session, well then that is fine.

MR. HASHEY: My friend Mr. Hyslop has indicated to me that he probably does have a series of questions arising out of those documents. I don't know about Mr. Gillis, whether he has or not, to be honest. And we know that there is at least three other groups that have stated that they won't be asking questions. And there is just a matter of trying to figure out the schedule of them, that is all.

CHAIRMAN: Yes. Sure. Well I would suggest -- and I will let intervenors and the applicant have a comment on this. But I would suggest as what we do is that we get to -- closer to the end of cross-examining this panel in reference to matters that can be done in the public forum. And then find out if there is that interest. And if so set the time at that time.

MR. HASHEY: That is fine.

CHAIRMAN: Any intervenor have a problem with that? In other words, we have got a number of -- or some time yet I think before we reach that stage. Okay.

MR. HASHEY: Yes.

CHAIRMAN: Any other matters?

MR. HASHEY: One last matter is there was in an undertaking given to Mr. Gillis this morning, I have requested that the panel answer that. I don't know what their answer is but possibly they are ready to answer that question concerning -- I think this dealt with the legal fee issue.

MR. WHITE: We had two questions this morning. The first one was, what counsel was consulted in drafting of the contracts. And the counsel that was consulted are the internal counsel, as I stated this morning, Smith Lyons, Mark Bosse. I don't know what the name of his firm is. And Cox Hanson. Those are the three counsels that are external that were consulted.

The second question that was posed this morning that we undertook an answer for was, what dollars for counsel involved in drafting the contracts. And as was pointed out, we had a $400,000 budget for drafting of the contracts. We had intended to use a significant portion of external counsel for that.

In fact as it turned out, we have done more work in-house and we have spent about $77,000 on that.

Q. - So if I understand it correctly, you used two local New Brunswick law firms and you used a law firm from Toronto to help you draft this contract to make sure you got it right?

MR. WHITE: We used Smith Lyons to do the original memorandums of understanding which were kind of the basis for the contracts. And then we used two local firms on the details, yes.

Q. - The negotiation process, what was the negotiating team, besides the lawyers, that dealt with AECL in arriving at these contracts, you, Mr. White?

MR. WHITE: Not me directly.

Q. - Who?

MR. WHITE: Two of the panellists on the left were involved in that and other corporate people and head office.

Q. - All right. Now, the corporate people at head office, they had legal training, I gather, and had extensive experience in drafting contracts of this nature with guarantees and warranties?

MR. WHITE: Well, were used to drafting contracts for various construction pieces of work. And we put that together with our internal legal counsel to complete that process.

Q. - All right. Your internal legal counsel, how big is your internal legal department?

MR. WHITE: We have four people.

Q. - Four people. And when you are called to the Bar, what experience do they have, is what I am after, concerning negotiating contracts of this order of magnitude, if any?

MR. WHITE: Well they are used to dealing with all the contracts of the corporation.

Q. - Is it of this order of magnitude? So you normally deal with contracts in excess of $75 million on a weekly, monthly or yearly basis?

MR. WHITE: Well the boiler contract at Belledune was $75 million, you know. The turbine contracts are 50, 60 million dollars. So those are types of contracts that we are used to dealing with.

Q. - The boiler contract of Belledune, when was that negotiated?

MR. WHITE: Some time in the late 80's.

Q. - Late 80's?

MR. WHITE: Yes.

Q. - Your legal department of the late 80's was much different than the legal department you have now. It is not the same. Isn't that correct, Mr. White?

MR. WHITE: Well, Mr. Dykeman was still there at that time. He headed the legal department.

Q. - Anybody else there?

MR. WHITE: Wanda Harrison.

Q. - Wanda Harrison?

MR. WHITE: Gordon Murphy.

Q. - I see. I wanted to ask you a question still dealing with this contract. The reason for deciding for a hard money or a lump sum contract was for what reason?

MR. WHITE: As we looked at the risks that would be involved in trying to run a single nuclear facility with a relatively small utility in the long term, we decided that we should have some external participation in that in terms of sharing the risks. And we reviewed that with a number of firms, as we have talked about in the previous evidence.

At the end of the day the firms identified to us that they would have to involve the original designer of the Nuclear Steam Supply Plant for the actual retubing due to the specialty nature and the proprietary nature of the design. And at the end of the day AECL was the one that offered a package that was more economic than the other packages that we had offered to us.

Q. - You indicate sharing the risk. What risk? That is what I am really after.

MR. WHITE: Well we were concerned about if we were going to extend the life of this plant for another 25 years, that with the changes in the nuclear industry in North America, you got a lot of consolidation going on. You got divestitures going on. We have enjoyed a fairly supportive relationship I think from Ontario Power over the early life of Lepreau. And we weren't sure that that would really be there in the future since they are divesting to Bruce. And under their provincial requirements of divestitures we might get a completely different level of support. And we felt that we needed a strong technical support for running this facility well in the long term.

Q. - So the risk that you are talking about here was the risk of running the facility in the long term?

MR. WHITE: The risk to be able to run it well in the long term, yes.

Q. - The risk to be able to run it. And that is why you decided you would enter into this hard money contract and a performance agreement with AECL, because -- to address this risk. Is that right?

MR. WHITE: The reason for the firm price that we wanted to enter into, again was to bound the job. Because these jobs are complicated in their own nature. And if you kind of don't get everything in one package, it is easy to have additionals that come along that you need to address. And they can expand the cost of the contracts for sure.

So we felt that the -- one of the ways to bound the risk of scope increase and cost increase was to get it in a fixed price contract.

Q. - Now I am confused. And I apologize. Now you are talking about the risk of scope increase where as risk of running it in the long term. Are we talking the same thing here?

MR. WHITE: Two different risks.

Q. - Two different risks. All right. It is the first risk that I am concerned with, not scope increase at this time. I am concerned about the risk of running for the longer term. That is why you entered into this agreement with AECL?

MR. WHITE: Yes.

Q. - Okay.

MR. WHITE: It is the reason we tried to enter into an agreement with some external party and AECL became the one of choice at the end of the day.

Q. - So the risk here is that of running a nuclear station for the longer term, that means what 10 or 20 years?

MR. WHITE: Well we were looking at another 25 years.

Q. - 25 years?

MR. WHITE: So that is what we were talking about.

Q. - Could you identify any nuclear station that AECL has been operating for five years, 10 years, 15 years, 25 years?

MR. WHITE: AECL don't operate commercial nuclear facilities. They are the designer. And so we wanted technical support.

Q. - So what you are saying is that you didn't even get somebody such as you had Ontario Hydro in the past that had experience in running a nuclear facility. You have got just the designer to commit to this long term performance agreement. Is that what you are telling me?

MR. WHITE: Well as an example --

Q. - Is that what you are telling me, Mr. White?

MR. WHITE: We got the designer involved, yes.

Q. - And what experience, if any, did they have in running a nuclear facility on a commercial basis?

MR. WHITE: AECL are a design house. And part of the work that we do in running a nuclear facility is modifications and changes to meet regulatory requirements. And therefore we need to go to a designer to provide that service and AECL are a core designer.

Q. - I see. But you agree with me they have no experience in the performance of a nuclear station on a commercial basis?

MR. WHITE: They don't have any licenses to my knowledge to operate commercial nuclear facilities.

Q. - Or any experience in operating one?

MR. WHITE: They have experience in operating reactors of the research type. And they also have experience through the Douglas Point Reactor which is currently not operating.

Q. - I wanted to go to the plant performance agreement generally just to understand one term. And that was, it starts when the plant is in service. That's when the plant performance agreement would kick in. Would that be correct?

MR. WHITE: That's correct.

Q. - Now if for some reason the plant never was put in service, the plant performance agreement never kicks in. Is that right?

MR. WHITE: That's correct.

Q. - And if the plant never is put in service because of a design defect, the payments that you get for your guarantees and warranties would all come under the refurbishment and retube agreement?

MR. WHITE: We have a two year warranty that addresses that issue, yes.

Q. - And the total dollar payment for that would be what?

MR. WHITE: 50 grand or the value of the contract.

Q. - Not 50 percent?

MR. WHITE: That's the maximum liability exposure.

Q. - And NB Power has no experience in the design of the

CANDU-6. You don't design them, do you?

MR. WHITE: No, we don't design them.

Q. - I think you indicated -- and I have problems with AECL because they don't operate these things. They just design them as they did the first one. You indicated that you had discussions with two other companies before you selected AECL?

MR. WHITE: Yes.

Q. - And the other companies were Siemens and NUCO?

MR. WHITE: Yes.

Q. - Now what price did they quote, and what guarantee did they provide with respect to plant performance?

MR. WHITE: Neither one of them provided a guarantee on plant performance because that wasn't the basis of their proposal.

Q. - Did you ask them, give us something on guarantee of performance?

MR. WHITE: What we asked them for was participation in the capital cost of the refurbishment job.

Q. - You wanted to buy something from them, right?

MR. WHITE: We wanted to buy a retubing agreement and a refurbishment agreement.

Q. - And you wanted them to cut you a special deal or help fund it?

MR. WHITE: We wanted them to share the risk and --

Q. - What risk?

MR. WHITE: -- in sharing the risk --

Q. - What risk?

MR. WHITE: Wanted to share first the financial risk of refurbishing the plant.

Q. - Was that like a performance bond you wanted?

MR. WHITE: No. What we originally wanted was investment in the capital cost of refurbishing the station.

Q. - Oh, you wanted them to be shareholders in Point Lepreau?

MR. WHITE: Yes.

Q. - I didn't know it was up for sale. Did you let your department know that you were trying to find somebody to invest in Point Lepreau as a shareholder before the Premier made his announcement last week?

MR. WHITE: It was quite clear that we were looking at a mechanism that would allow us to share the risk of refurbishing this plant from a capital point of view.

Q. - Did you let the Department of Natural Resources know that you were out actively soliciting people to invest in and take an equity position in Point Lepreau?

MR. WHITE: The Deputy Minister of Natural Resources sits on -- sits at our Board meetings. Yes, he was informed.

Q. - Before or after you went out and sought these?

MR. WHITE: Both.

Q. - Now you wanted them to handle the risk. That was the risk with respect to the money required to refurbish Point Lepreau. Is that the only risk that you were seeking from these two companies?

MR. WHITE: No. We were looking to do a number of things in risk management.

Q. - What are the items, please, just list them?

MR. WHITE: We wanted to -- an initial investment. We could share the initial risk investment.

Q. - Yes.

MR. WHITE: We were interested in the operating risk of the station for the long term.

Q. - Yes.

MR. WHITE: Those are the principals that we started out with.

Q. - All right. Now the operating risk is the one I'm concerned with for the long term. What was their response on how much they were prepared to guarantee the performance?

MR. WHITE: Well, again, the performance agreement wasn't part of the initial risk. That was a subsequent piece of the AECL negotiation because they couldn't put money on the front end as we explained earlier in testimony.

Q. - How much money on the front end did Siemens or NUCO agree to put up?

MR. WHITE: Our discussions with Siemens after we discussed what we wanted to do and what position they were prepared to take, they were not prepared to invest money on the front end. They just wanted work. And so that ended negotiations there.

NUCO were offering to lease the plant and then have us operate the plant and we would be the recipient of all the power out of the plant. And when we evaluated that against a natural gas option, it was more expensive than a natural gas option.

Q. - I want to go back -- still dealing with guarantees and dealing with AECL. And take my worst case scenario, the hypothetical that it just doesn't work or they are three years late in doing it and it doesn't work. At that point in time -- let's say it just doesn't work, to find a replacement plant is going to cost the taxpayers and the ratepayers of this province $800 million in replacement power. Correct?

MR. WHITE: Well, first off, I would say that there is no reason why this can't work. Because the technology is all technology that has been used in the past, albeit that we have only replaced a few Calandria tubes, not a wholesale reactor, but the technology is known as to how to do it. Replacing all the pressure tubes is an item that has been done four times in Pickering. And this has improved and built on that operating experience, so there is no reason why that can't work.

And the remainder of the power plant that we are going to refurbish, the types of things that we are doing are the types of things you could do and we do do on normal outages. We just happen to put them altogether in one package for this outage. And so there is no technical reason why this won't work.

Q. - It has never been done before, replace all the Calandria tubes in any nuclear reactor in the world. Is that right?

MR. WHITE: Well, I just -- I just said that. Yes.

Q. - So we are number one. And if it don't work I want to take the worst case scenario, replacement power would cost the taxpayers and ratepayers 800 million, correct?

MR. WHITE: If you assume that it takes you four years to get something else in place.

Q. - I just took your evidence from this morning to get to four years. I was at three and a half. You said, no, four for a combined gas unit.

MR. WHITE: I said within the lead time from now until 2006 we have ample time to invest in a gas plant if gas is available, yes, within that four years.

Q. - That's one component, the cost of replacement power while you build this new plant in 2007 or start. The other one is the debt on the attempted refurbishment of Point Lepreau that would fail. That has to be paid back as well, doesn't it?

MR. WHITE: Yes.

Q. - And that would be another 800 million or 850 million?

MR. WHITE: I didn't do the computation but --

Q. - That's the right order of magnitude, isn't it?

MR. WHITE: I will get the accountants to work that out. I don't think I would speculate at the table here.

Q. - All right. Well, look, Ms. McKibbon, what is the total cost?

MS. MCKIBBON: I would have to refer to the Panel B evidence to tell you the difference between what they are going to finance through internal cash flow and what we are going to finance through debt. So I would refer you to Panel B.

Q. - All right. That's a good answer. Now against this, and assuming that I'm right, Mr. White, that 850 million we have to write-off on Lepreau plus 800 million for replacement power is 1,650,000,000. We are going to get some money back from AECL, how much? Worst case scenario?

MR. WHITE: Well the retube agreement has an outside limit of 50 percent of the value of the agreement.

Q. - Which is?

MR. WHITE: And the -- well, it's $289 million, so it's 50 percent of that.

Q. - 140.

MR. WHITE: 140 million.

Q. - 144,500,000?

MR. WHITE: Right.

Q. - Yes.

MR. WHITE: And I didn't say we were getting that back. I said that's the outside limit.

Q. - That's the maximum.

MR. WHITE: That's the maximum. That's the maximum limit. And the maximum limit on the refurb' contract I believe is 30 percent of the value of that contract.

Q. - Correct, about 39 million?

MR. WHITE: Yes. And the value of that contract I think is based on $139 million.

Q. - So it's about 39 million you might get back there?

MR. WHITE: Right.

Q. - So the total in my worst case scenario you have negotiated so successfully is that you will get about $185 million back from AECL, but you will have to spend 1.6 billion. That's an acceptable level of risk, is it?

MR. WHITE: Well, again, it is not the intent of those kind of damages to cover the total the replacement cost of power.

Q. - Well who will cover the difference then under my scenario?

MR. WHITE: That's part of what NB Power takes as its own risk.

Q. - So NB Power has got to dig into its pockets for over a billion and a half dollars under the worst case scenario. Where do they get the money, Mr. White?

MR. WHITE: Well you can assume however long you want to take, for years here, okay. But on any project that we build we are faced with that issue. If the project doesn't come in on time, where do we get replacement energy from. Okay. We either take it off our other units for spring or summer months when we have shoulder months available. And in the winter months when we don't have the capacity we need, then we will have to procure that capacity.

Q. - So my scenario, and maybe you misunderstood my question. If it is going to be a billion six and you are going to get 187 and a half million back from AECL, you are short a billion and a half dollars. And I asked where you would come up with that money or who would come up with it. And you would say we would come up. NB Power would come up with the money on its own.

Ultimately who would pay that money back, the taxpayers and ratepayers of this province?

MR. WHITE: The ratepayers of this province pay for the price of the electricity that is generated.

Q. - Right. And looking at how much money you make a year, last year's financial statement what, 10 million bucks. How long would it take you to pay back a billion and a half dollars, 150 years?

MR. WHITE: I can do that math, okay, but this is a hypothetical example.

Q. - Worst case scenario, 150 years to pay it back if you want it to come from your own revenue, right?

MR. WHITE: It's your statement, sir.

Q. - Well if you disagree, you let me know. Now you said the replacement power, you pick it up in the spring. This past spring has Lepreau been down?

MR. WHITE: Not this spring.

Q. - So Lepreau has worked at capacity from the first of the year to the present time?

MR. WHITE: Outside of its annual outage which it is currently on.

Q. - All right. So how much -- outside of its annual outage, how many days was that?

MR. WHITE: We are in the middle of it right now.

Q. - I see.

MR. WHITE: 66 days was the schedule.

Q. - All right. Now you are picking up this other power then, from your other units. Has Belledune down?

MR. WHITE: Yes.

Q. - When?

MR. WHITE: I think it was around early April.

Q. - And how long has it been down?

MR. WHITE: Well that's running now. I think it was down -- out for about a week.

Q. - I guess over this past spring it hasn't been that favourable for you and the power. You have not had that surplus you had expected. Would that be a fair statement?

MR. WHITE: Well we normally expect that we have planned outages for the units, and we provide an allowance for forced outages in the case of Belledune. We apply -- we apply about 2 percent. So we -- sorry. Mr. Eagles is reminding me it is about 4 percent budget for forced outages on the Belledune unit. So it is about two weeks a year.

Q. - Maybe Mr. Eagles knows a bit there. I had, still dealing with the risk, and I think it is an unacceptable risk, come across a document, Mr. Eagles, that you might be familiar with. In A-6, it is right at the end. It is the last bit there where you have the regular Board meetings of NB Power. And I would like you to turn up the Board meetings of December 18, 2001, about five, six months ago.

Do you have that? It is really the blue page in front of mine. I think it is the last -- do you have it, Mr. Eagles?

MR. EAGLES: December 18th?

Q. - December 18th 2001?

MR. EAGLES: Right.

Q. - You attended that Board meeting, didn't you?

MR. EAGLES: Yes, I did.

Q. - Now I want to go over -- page 15. The numbering seems to stop at 13. And it is 14, 15. There is no number 14, no number 15.

Do you have that? The head of the page is "NB Power, Point Lepreau Refurbishment, 24 high risks"?

MR. EAGLES: Yes.

Q. - Now why don't we jump down here and take a look at "Technical". Do you have "Technical"?

MR. EAGLES: It is on the page, yes.

Q. - All right. Could you tell me what the first item in "Technical" is?

MR. EAGLES: Yes. The moderator recovery system would be required because seamless Calandria tubes cannot be qualified or licensed.

One of the design changes that we proposed was the installation of seamless Calandria tubes. And when we install that particular design then we believe the higher cost alternative would not be required.

Q. - I would just like to get some dollar figures beside these items. Moderator recovery system is required because seamless Calandria tubes cannot be qualified or licensed.

What is the maximum cost that could be associated with that item, dollar figure?

MR. EAGLES: If I might add for point of clarification, I see that Mr. Gillis is referring to evidence that we submitted in confidence for the in-camera --

Q. - I'm not referring to anything.

MR. EAGLES: Okay.

Q. - I'm looking at these Board minutes. What is the maximum cost in dollars?

MR. EAGLES: That is fine. I don't have all the details with me right now. But I believe that we suggested that the costs could be ranging between 5' and $20 million.

Q. - The maximum cost --

MR. EAGLES: Most likely in the 10 million range, between 5'

--

Q. - I just want to find the worst case scenario and then to work out my risk, to do the risk analysis, as most people would do on a business plan.

So the worst case scenario for item number 1 here, moderator recovery is $20 million?

MR. EAGLES: I don't have the information in front of me at this time. But I believe that was in that order, yes.

Q. - Well, if there is anything you want to refer to, refer to it. I don't really want -- I just want to be sure of the answer.

MR. EAGLES: I don't have that information with me here.

Q. - Okay. Next item is "Main turbine inspection reveals cracked spindles." Maximum dollar figure?

MR. WHITE: I could point out to Mr. Gillis that --

MR. GILLIS: I'm not asking you the question.

MR. WHITE: -- we gave evidence early on that we are already under examination of that in the current outage in Lepreau. And we will have the answer to that before we are finished it.

CHAIRMAN: Mr. Gillis, it is a panel.

MR. GILLIS: All right.

CHAIRMAN: And the way this Board works is that you may put it to one member but another member can join in. And we get the best evidence that way.

Q. - All I was after was the dollar figure. And I appreciate the dollar figure I just got from Mr. White.

What was the dollar figure again, Mr. White? You attended that Board meeting. I see your name there.

MR. WHITE: I said we are already in inspection of that item in the current outage. And it will confirm whether it either exists or doesn't exist.

Q. - I just want to know the maximum dollar figure that was put to the Board at this meeting of the 18th of December, 2001.

MR. WHITE: I don't know.

Q. - Mr. Eagles, what was it?

MR. EAGLES: I don't recall the exact number. Again --

Q. - Well, to the nearest million or 10 million?

MR. EAGLES: Well, I can't -- I can't recall. It probably was in the order or 20 million or --

Q. - 20'? Okay. I will just note another 20 million.

MR. EAGLES: I don't know.

Q. - Now "Condenser inspection reveals replacement of tubes and tubesheets." What is the maximum dollar figure for that?

MR. WHITE: Mr. Chairman, I think the answers to these are in that Ernst & Young report. And if we want to have an in-camera session, then you can dig it out instead of us sitting here trying to remember what the numbers were for each one.

Q. - I don't really want to get into the report. Because some of the intervenors here will be obliged to leave the room. And I just want to know what this fellow recollects what he told the Board meeting.

That is not what the Ernst & Young report -- what he told the meeting the maximum dollar figure would be? A perfectly legitimate question, Mr. Chairman.

CHAIRMAN: I think --

MR. HASHEY: If he doesn't know --

MR. EAGLES: I don't recall. There is a lot of information here.

CHAIRMAN: If it is available to the witness, Mr. Gillis, as you know, you can request that there be an undertaking made to provide it.

MR. GILLIS: I'm going to save up all the don't knows. And then I will come back at him and get it another way.

Q. - Let's go down to the next one. "Any inherent component flaws in existing generator frame core rotor spindle may not be removed."

Maximum dollar figure for this? What did you tell the board of NB Power six months ago?

MR. EAGLES: I would only be guessing without my reference material.

Q. - That is another don't know? Okay. Let's go down to the next one, "Reactor assembly component inspection."

Maximum dollar figure for that?

MR. EAGLES: Again I don't have my evidence or my documentation here to recall all the discussions on these items.

Q. - "Environmental qualification of all PVC cables." Dollar figure, maximum?

MR. EAGLES: I believe in that case it sticks in my mind that there is a low likelihood of any additional work. But if in fact it was demonstrated that all of the cables would need to be replaced, the number is very large.

Q. - That is what I -- maximum, 100 million? 200 million?

MR. EAGLES: In the order of a hundred.

Q. - $100 million for that one?

MR. EAGLES: I believe that is what we analyzed there.

Q. - All right. "Emergent work resulting from inspections during outage." What is the maximum dollar figure there that you told the Board?

MR. EAGLES: I don't recall on that one. I think in the order of 10 million perhaps.

Q. - Next one, "Pressure tube and feeder tubes remaining life." What is the maximum dollar figure there?

MR. EAGLES: This risk was related to whether or not we could continue to operate existing pressure tubes and feeders to the outage.

And I believe the risk was that if we had a failure in advance of the outage, I believe we -- I don't recall.

Q. - You don't recall?

MR. EAGLES: I don't recall the number we used.

Q. - What about the boiler? What is the maximum dollar figure for the boiler?

MR. EAGLES: Again, this is all information that we have in our Ernst & Young review. And I don't have the information.

Q. - I don't have that document open.

MR. EAGLES: I understand that. I don't know off the top of my head.

Q. - Well, it is a show-stopper, isn't it? If the boilers fail, it is a show-stopper at Point Lepreau?

MR. EAGLES: Well, it would depend on the degree to which failure occurred. Most --

Q. - $500 million, would that be a good figure?

MR. EAGLES: I --

MR. WHITE: Mr. Gillis, if we had to replace the boilers when we replaced them during this outage that we are talking about here, the estimated number was $125 million.

Q. - So boiler replacement is 125 million.

Now you have some other items under "Project Management, schedule delay lag between Phase 1 and 2 due to EA completion schedule."

EA is what?

MR. EAGLES: Environmental assessment.

Q. - And what is the dollar figure for that?

MR. EAGLES: Actually this particular risk in the subsequent one, scheduled delays due to lag between Phase 1 and Phase 2, both have been mitigated by the actions of our Board to approve the Phase 2 early start activities and to continue on this work while we go through his hearing process.

Q. - That is fine.

MR. EAGLES: The exact numbers of either of those, I don't recall off the top of my head.

Q. - Is it like 5 million bucks? Or is this a 50 million buck item?

MR. EAGLES: I -- I don't recall. But it is probably in the order of 40 million or 50 million. I'm not sure.

Q. - 40' to 50 million?

MR. EAGLES: I don't know off the top of my head.

Q. - Now we go up to the top under "Licencing". You have a number of these items dealing with CNSC. That is the

Canadian Nuclear Safety Commission, is it?

MR. EAGLES: That is correct.

Q. - And that is the licencing body?

MR. EAGLES: That is correct.

Q. - And what has been your experience with the amount of time required between the time of submitting an application for an approval of some item and actually getting a decision back from CNSC?

MR. WHITE: Mr. Pilkington may be able to answer that better. But typically it can be anything from one day to one year.

Q. - One day to one year. And there are a number of Canadian Nuclear Safety Commission items required in your plan to redo Point Lepreau, aren't there, Mr. Pilkington?

MR. PILKINGTON: Are you talking about in the refurbishment plan?

Q. - Yes.

MR. PILKINGTON: Yes, there are. I would defer back to the project though on any specific question.

Q. - I see. Now these approvals from the regulator in Ottawa, I gather you worked out a schedule as to construction and applications, when the application would have to go in and when you would have to get the answers back?

MR. EAGLES: We have on a number of these issues, yes.

Q. - And you are familiar with that schedule, aren't you, Mr. Eagles?

MR. EAGLES: To a degree, yes.

Q. - Now what Mr. Pilkington told me, he said it could be from a day to a year. So I would pick about six months lead time to get approval.

What did you carry in your schedule with respect to the amount of time required from application to getting approval?

MR. EAGLES: Well, in the case of the -- in the case of the EA we have in fact been going through a process of submitting the environmental assessment report this summer. And we are not expecting a report until next -- or an approval until next summer.

Q. - All right. Any other approvals? What time frame did you carry in your schedule to get those approvals from the date of application?

MR. EAGLES: I would have to look at the specific schedule on each --

Q. - Why don't you look at whatever schedule you want to look at. I don't know what you are referring to.

MR. EAGLES: I don't have that information here with me.

MR. WHITE: I think what you are asking maybe is that we put forward a licencing framework document with the regulator.

We worked with them for the last almost two years on the work to be done here to come to a basic comfort level of what they would agree to and what they would approve. And we got a response on that on the 17th of December of last year.

Q. - And what did they say? They would approve it the same day they got it or the day after?

MR. WHITE: They said that generally the licencing framework on the plans that they have would be in keeping with what their requirements would be under an ongoing license and that it formed the basis of agreement with them on the work to be done.

And they identified the areas where they would expect additional work to be done.

Q. - I guess what I'm saying is that from what Mr. Pilkington told me, Mr. White, that --

MR. WHITE: I think I told you, sir.

Q. - I thought Mr. Pilkington is the one that said it takes a day to a year to get an approval. But I guess I was wrong.

All right. So if it takes a day to a year to get an approval, your last answer you just gave me was what? It is only going to be two days that you carry in your schedule or a week?

MR. WHITE: We spent a year and a half --

Q. - A year and a half?

MR. WHITE: -- to two years working with the regulator to get to understand the scope of work so that we would know at what level they would approve it.

Q. - And after reaching that level of comfort with the regulator, what did they tell you, from the time required, from the time they receive an application for any part of the work until they will give you an approval?

Did they say it will only take us 24 hours or it will take us three weeks or three months?

MR. WHITE: They didn't tell us. They said, you know what the normal regulatory process is with us. And you should have confidence in it.

Q. - And so would I take from your answer that it would be approximately six months?

MR. WHITE: Well, many of the items we are talking about approving, we don't need till 2006. Some of them we will need before that.

And so we may have lots of lead time to get these things approved. But we are actioning them early so that they can be built into the design work that is to be done.

MR. GROOM: Mr. Gillis, I think it is also important to note in this process you are questioning that the CNSC has currently issued an operating license for Point Lepreau, that license we expect will continue to be in service during the period of refurbishment. This is atypical that in a normal period when we would take the plant down for maintenance that the operating license would cover the maintenance requirements. So that there are processes and protocols we have in place with them where on a daily basis, because we have a team of three people full-time at the plant, we routinely review case by case all the work that is ongoing. And it's only in evidence of a non-compliance would they find reason to consider changing the license. So we would anticipate that through this period that the normal practice we have in any outage would continue and would proceed, and that we would carry out on a case by case, job by job basis the necessary approvals.

Q. - Thank you. I go back to Mr. Eagles. In the Board minutes, if you go over to page 18 of the December 18th, 2001, the second bullet reads, low probability, high cost --

CHAIRMAN: Just a second, Mr. Gillis, until we find that. We have got it. Great. Thank you. Go ahead.

Q. - Again this is part of your presentation, Mr. Eagles, to the Board?

MR. EAGLES: Yes.

Q. - And you indicate here, low probability, high cost events, and there is four of them with bullets.

MR. EAGLES: Right.

Q. - Would all of these be hundred million dollar events?

MR. EAGLES: No. The moderator recovery system was, as we discussed earlier, likely in the order of 20 million.

Q. - I think you told me the cables are a hundred million.

MR. EAGLES: I believe that was the absolute worst case scenario estimate.

Q. - The Calandria tubesheet weld ductility, hundred million again.

MR. EAGLES: Probably in that order, if in fact there was a problem there that --

Q. - Moderator --

MR. HASHEY: Please let him finish his answer, Mr. Gillis.

MR. GILLIS: I'm sorry.

MR. EAGLES: Again that was probably an estimate if there was a problem in the worst case -- in the lowest probability of events.

Q. - And moderator link inlet nozzles?

MR. EAGLES: I don't recall the exact number we had there, but again it was a high number because of the location and difficulty accessing.

Q. - Hundred million?

MR. EAGLES: I don't believe that that would have been in that order. Probably in the ten to 50 or somewhere in that order.

Q. - Now, Mr. Eagles, what is your education?

MR. EAGLES: Mechanical engineer.

Q. - Mechanical engineer. And you hold a doctorate or a masters in the field?

MR. EAGLES: No. I have a bachelors degree.

Q. - Bachelors degree. Now probabilities, that deals with statistics and it's a mathematical science, and I'm really interested in how many courses in probabilities did you take in statistics? Just one?

MR. EAGLES: I don't recall. Probably one or two.

Q. - One or two. And that would have been how many years ago?

MR. EAGLES: I graduated in 1983.

Q. - So that would have been back in the late '70's, early '80's you would have taken a probability course or a course in statistics in which probabilities were covered?

MR. EAGLES: That's correct.

Q. - Now when you gave an opinion to the Board of NB Power you wrote or you talked of low probability, high cost events. I have got the costs. Now I'm dealing with the probability. What statistical analysis did you perform? By which mechanism did you arrive at that?

MR. EAGLES: This was the engineering judgment of a number of people on our project team, at AECL as to the likelihood that each of these events might occur.

Q. - Oh no, no, no. I want the -- did you -- do you know what probability is? Do you know how to determine probabilities, the mathematical formulas?

MR. EAGLES: I'm not sure I understand where you are going.

Q. - All right. Do you know -- why don't you tell me what you mean by the word probability? Give me your definition and I will take it from there.

MR. EAGLES: It's the likelihood that an event will occur.

Q. - Right. And it's like when you flip a coin, how many times you get heads, how many times you get tails.

MR. EAGLES: Well if you want to do random probabilities.

Q. - Yes. How many different types of probabilities do you calculate mathematically?

MR. EAGLES: This is the purpose that we engage the services of Ernst & Young to help us work through the process of determining how we should analyze this particular information. So --

Q. - I see. So --

MR. EAGLES: I'm not an expert in probabilistic analysis.

Q. - So when it came to telling the Board of NB Power about the probabilities you said, look, fellows, I'm not an expert in probabilities. We will use somebody else to tell us what the number is. Is that what you are telling me.

MR. EAGLES: We used our engineering judgment and we used our engineering designer, AECL, to work with us in understanding the likelihood that some of these events would take place, and in fact the analysis that was done on a number of these items dictated to us that in fact they were extremely unlikely to occur.

Q. - So what you did, to put it in a nutshell, is you, the engineers at Point Lepreau, got together with the engineers at AECL and gave some information to some accountants to come up with a probability of something happening. Is that what you are telling me.

MR. EAGLES: We discussed the likelihood that any particular event might occur and tried to use our judgment in determining what that would be.

Q. - Now I do have here complete lists of universities that provide doctorates in nuclear engineering and masters in nuclear engineering which would deal with reactor design. You are a mechanical engineer, correct?

MR. EAGLES: Yes, that's correct.

Q. - Have you taken courses at Cornell, Idaho State University, MIT, University of California at Berkeley, University of Cincinnati, all of which have a masters and doctorate program?

MR. EAGLES: No.

Q. - No. The fellows at NB Power that were providing this information, the likelihood of something happening, which gets into statistics, they all have masters and doctorates from some of these recognized universities, don't they?

MR. EAGLES: I don't believe so.

Q. - Okay. They have all written books or chapters in books, haven't they, with respect to this topic?

MR. EAGLES: I don't believe so.

Q. - Have they even published any scientific peer reviewed papers?

MR. EAGLES: I am not aware of any.

Q. - And yet these are the same fellows that say that, look, this is the likelihood of this happening within a nuclear reactor. Is that what you did collectively as a group?

MR. EAGLES: Again --

MR. WHITE: Mr. Gillis, the important issue here is that we went through a process of identifying particular risks.

Q. - Right.

MR. WHITE: We utilized the collective knowledge that we had within our own organization and within the AECL organization, many of which have the doctorates that you eloquently refer to there. And then we engaged an external accounting firm to help us put together what we think is the balance of risks that we should then compute a contingency allowance for on the project.

Q. - Okay.

MR. WHITE: Okay. And we recognized that a number of the risks that we identified there we would need to go through a process of inspection of equipment prior to that, just like we are doing right now on the rotor bore inspection, to confirm this as early as possible so we could then take that risk off the table.

So we went through a due diligence process of identifying risks and being able to either disposition them or quantify them in terms of economic dollars and then what those things should be in terms of value and contingency.

Q. - Thank you, Mr. White. I understand what you have just said. I was going to get to AECL. AECL is the one that hoped to get a hard money contract to do this.

MR. WHITE: AECL is the group that we chose to work with to develop these kinds of contracts after looking at the market and people who were prepared to put some money on the line to do this work.

Q. - And the two of you, NB Power, you fellows that work at

Lepreau, and AECL who hope to get this hard money contract, then went off to see some accountants somewhere and said, look, this is the chance of this happening, prepare us a report, and that's that secret report that we had last week, is that right?

MR. WHITE: The due diligence process after identifying potential risks from an engineering point of view, then said, okay, how do we go through a risk analysis and the contingency allowance model so that we could come up with an appropriate value to put into the contingency allowance for the project.

Q. - And the individuals from Ernst & Young that helped you put numbers to these, did they hold any masters or a doctorate in the field of nuclear engineering, or mathematical sciences?

MR. WHITE: I think the answer to that is probably the same as your previous one. We didn't go through a biographical analysis of each one and most of them don't hold doctorates, that's right.

Q. - So consequently I would assume then, listening to how you put this altogether, for those show stoppers, and show stoppers being those events that would be big price ticket items that would make this not viable to proceed with the retubing refurbishment, I would assume that they all came up with a low probability, although we didn't make the calculation, somebody else did, is that right, Mr. Eagles?

MR. EAGLES: We assessed those large high cost events to be I guess in the areas of low probability, such that their impact on the project would not be substantial.

Q. - And if you went the other way and let's say they were a medium probability or a high probability, that would drive the cost, wouldn't it?

MR. EAGLES: If in fact probabilities were higher, then the output of the analysis that was done would have dictated or would have indicated a higher contingency allowance would have been more appropriate.

Q. - And if that were to take place, then the nuclear option refurbishment might have difficulty standing head-to-head with gas or Orimulsion, as Mr White put it.

MR. EAGLES: Yes.

MR. WHITE: You have got to recognize that in gas you can do the same probability exercise, and what is the probability that gas will even be here by 2006? There is no gas available as far as I understand today. And so when you compare against that gas option, although we have done the economics of it, the probability of it being here might be pretty high.

Q. - I see. Okay. I just wanted to get an understanding there. Oh, Ms. McKibbon, I just wanted to talk for a second about the debt of NB Power. And I asked the other members if they were aware of the financial statements of NB Power last Friday and I think a number of them had some knowledge. Are you familiar with the financial statements of NB Power?

MR. HASHEY: Mr. Chairman, I think we properly answered last week that this is a Panel B issue. We will have the Vice President of finance present who can answer all those questions.

MR. GILLIS: If the witness doesn't want to answer the question, that's fine, Mr. Chairman, but I think I'm entitled to put the question to a chartered accountant.

CHAIRMAN: Does the witness want to answer that question?

MS. MCKIBBON: I have read the financial statements of NB Power. I'm not prepared to answer questions with regard to them today. They are Panel B issues.

Q. - All right. Maybe I will come at it this way. Are you aware that the net debt of NB Power is about 99.7 percent?

MR. HASHEY: I think the witness just answered the question, that she is not prepared to deal with these issues. I would ask --

CHAIRMAN: Next question, Mr. Gillis.

Q. - The dollar figure for the refurbishment and the retubing in relation to Lepreau is in excess of $800 million. Where do you understand, Ms. McKibbon, that money will come from.

MS. MCKIBBON: Again this is a Panel B issue, but my understanding it will come from a combination of debt in the internal cash flows of the corporation.

Q. - The internal cash flows, that means the income at the end of the year, whatever that might be?

MS. MCKIBBON: Adjusted as appropriate, yes, for non cash items.

Q. - And if -- let's say it were only $10 million and you had to come up with another 790 million that would mean you would increase the debt as far as you understand it?

MS. MCKIBBON: If those were the true figures, yes.

Q. - With respect to -- and you work at Point Lepreau. Is it my understanding that 40 percent of the operating expense of NB Power relates to Point Lepreau?

MS. MCKIBBON: If you are talking operations, maintenance and administration budget, it's approximately $100 million of that budget.

Q. - It is about 40 percent. I think OM&A is always about a quarter of a billion a year?

MS. MCKIBBON: That sounds a little light to me actually.

Q. - Are you familiar with other utilities in Canada?

MS. MCKIBBON: I'm not familiar with the details of financial operations, no.

Q. - I think maybe Mr. Groom or perhaps Mr. White, you are familiar with I gather the -- in a general way the attempt to refit the Pickering reactors in Ontario?

MR. GROOM: In a general way, yes.

Q. - And that attempt was made between 1983 and 1989?

MR. GROOM: In that period of time the work that I'm familiar with them doing was to replace the fuel channel pressure tubes.

Q. - And the attempted refit between '93 and '97, how was that recognized the best you understand it by Ontario Hydro?

MR. GROOM: Would you please explain what you mean by recognized?

Q. - Well was the refit a failure and ultimately Ontario Hydro had to write off the debt? I'm just going from what I have read in the media.

MR. GROOM: As regards to work I referred to earlier the pressure tube replacement work resulted in them getting about 18 full power years of operation out of those fuel channels, in which time there was no unavailability assigned to the fuel channels. So from that perspective the fuel channel work was considered to be successful.

Q. - I see. Well did Ontario Hydro -- maybe I must have read the paper wrong. I thought they had written off a huge amount of debt in relation to their nuclear facilities. Did they have to write off any debt to the best of your understanding?

MR. GROOM: To write off any debt did you ask?

Q. - Yes. Debt.

MR. GROOM: I'm not familiar with that aspect of their work.

Q. - With respect to the decommissioning of Lepreau, are you familiar with how that's accounted for at present?

MR. GROOM: Are you asking the question in the context of how that will be funded?

Q. - Yes.

MR. GROOM: That's an issue that will be addressed by Panel B.

Q. - I see. Do you know how much money has been allocated for the decommissioning and the disposal of waste fuel generally?

MR. GROOM: If you ask me the question of how much money has been funded by NB Power for the decommissioning -- is that the question?

Q. - All right. That's a bit of a different question. All right. How much has been funded by NB Power for the decommissioning?

MR. GROOM: Again I don't have the exact facts, that's an issue for Panel B, but it's my recollection that it's in the order of $100 million.

Q. - And what would the present value be of the decommissioning of Point Lepreau if it were not to be retubed and refurbished?

MR. GROOM: Well from the evidence we have identified that the cost for decommissioning is 454 million and based on 2001 dollars.

Q. - Of which there is $100 million that is set aside for it?

MR. GROOM: That's my recollection of about the amount.

Q. - So there is an unfunded amount of about $350 million?

MR. GROOM: Again this details a question for Panel B, but I would remind you that the $454 million is a cash flow that's spread out over the total 40 years-plus of the decommissioning schedule and the actual annual cash flow requirements are reflected in the evidence. So the amount of money that's necessary in order to be able to fund that cash flow is quite obviously therefore not the full amount in 2001 but the necessary amount to service the debt that would be created over that time interval.

Q. - I wasn't listening and I apologize. Would it be fair to say then that 454 million present day dollar value is the present day value to decommission Point Lepreau?

MR. GROOM: That's the integrated amount of the grand sum of all the costs, yes.

Q. - I would like to turn briefly to the retubing agreement.

CHAIRMAN: What volume is that in, Mr. Gillis?

MR. GILLIS: I'm just looking for that myself.

MR. WHITE: It's A-13.

Q. - A-13. That is what I --

MR. WHITE: And it's under PUB -- PNB supplemental 9.

Q. - Now maybe this is for you, Mr. White. I have been involved with construction contracts for a period of years off and on for different clients. Normally the experience that I have had is you would have an engineer or an architect design the structure, the owner would then contract with somebody, whether it be a hard money contract or cost plus to build it, and during the construction phase it's supervised by the engineer or the architect, and they approve for payment by way of progress payment as the project goes along. Is that your understanding generally of how contracts normally flow?

MR. WHITE: That's one model.

Q. - One model. And the reason you have it that way that if there is a screw-up in the design you sue the engineer or the architect. And if there is a screw-up in the execution of the work you sue the contractor and you have the evidence to prove it one way or the other.

Now in your contract here you have AECL what, to be the designer, the engineer and the architect, so to speak, as well as the general contractor?

MR. WHITE: That's correct.

Q. - I see. And who has to approve the design in the end?

MR. WHITE: AECL are responsible for the design to make it work for the 25 years.

Q. - Right. And if I look at the case law in New Brunswick you will find that contracts under seal would mean the engineer or the architect is on the hook for the cost for upwards of 20 years. But here you have let AECL off the hook, haven't you? You got a short warranty and little by way of plant performance?

MR. WHITE: What we actually have is we have got AECL on the hook for 25 years for this thing operating, which is not normal with your architect/engineer example.

Q. - Yes. But they don't have to pay. If it's down for an extended period year after year, the maximum exposure of AECL is only 225 million?

MR. WHITE: That's correct.

Q. - And if it were down year after year the maximum 200 million for 25 years would be what, $10 billion?

MR. WHITE: Well of course that isn't the history of Lepreau, is it? It has run reasonably well and AECL are the designer.

Q. - Yes. And look it goes back to the automobile. I mean, I quite agree with you you buy a new car, you get a warranty for 10 years. You drive it 10 years and you go back to the manufacturer and say look, I'm going to pay you some money, I want you to refurbish it and give me 15 more years from it.

MR. HASHEY: Aren't we moving into argument, Mr. Chairman?

CHAIRMAN: Well I don't know what we are moving in to.

Q. - I apologize. I will withdraw that. Well to get back to the design, Mr. White, somebody has to approve the design under these contract documents, who is it?

MR. WHITE: That's me.

Q. - That's you. Vice-President Nuclear?

MR. WHITE: I'm the engineer referred to in the contract and I can delegate that to who I wish.

Q. - Yes, I read that too. I wanted to ask you -- and it's right in the definition section, it had to be you and if you don't approve, it's deemed approved, correct? Later on in the contract on the design, they submit it for your approval, if you don't approve it after a certain period of time, it's deemed approved?

MR. WHITE: That's the way we set the contract up, yes.

Q. - Yes. That is what you did all right. Now could you tell me if AECL has all of these fellows that are masters and doctorates in the field of nuclear engineering, who are you going to delegate the final say with respect to design to at NB Power?

MR. WHITE: Well I have the Chief Nuclear engineer sitting next to me.

Q. - I see. The Chief Nuclear engineer is Mr. Groom?

MR. WHITE: That's correct.

Q. - Mr. Groom, you do have a masters and doctorate in the field of nuclear engineering?

MR. GROOM: I'm a licensed shift supervisor. Been authorized by the CNSC. My degree of engineering is in metallurgical engineering.

Q. - And it is at the doctorate level?

MR. GROOM: No, I don't have a doctorate.

Q. - Masters level?

MR. GROOM: No, I don't have a masters level.

Q. - And what about publications? Peer reviewed scientific publications dealing with nuclear generating system design, nuclear engineering, do you have any?

MR. GROOM: If you want such a list it can be generated for you.

Q. - Of ones that you have written, peer reviewed?

MR. GROOM: I'm sorry? Say again?

Q. - Peer reviewed scientific publications dealing with this subject matter, have you written any?

MR. GROOM: In regards to the subject matter related to the fuel channel work, yes, I have been a co-author on papers and have generated some. If you want such a list it can be generated.

Q. - All right. I would be interested in seeing that because you realize -- well -- no, I would be interested in seeing that.

MR. HASHEY: Do you want to know the award that Mr. Groom is getting tomorrow evening from the Canadian Nuclear Society? We will be dealing with that tomorrow.

MR. GILLIS: Are you going to buy me a ticket to it, Mr. Hashey?

MR. HASHEY: A one way trip to Toronto. Sorry, Mr. Chairman, Mr. Gillis and I go way back.

CHAIRMAN: I think this is a good time to take our 15 minute break.

(Recess)

CHAIRMAN: Go ahead, Mr. Gillis.

MR. GILLIS: I won't be much longer.

Q. - Looking at the retube agreement A-13, PNB 9, it does provide for escalation, I think you indicated, is that correct, Mr. White?

MR. WHITE: I apologize. Could you give me the reference again?

Q. - It is A-13, the retube agreement. It is in volume A-13. It is PUB 9.

MR. WHITE: Yes. I have the retube agreement.

Q. - All right. That agreement provides for escalations?

MR. WHITE: Yes, it does.

Q. - And escalations mean if prices go up, the price goes up?

MR. WHITE: That escalation is based on labour and materials, yes.

Q. - Right. And it is based upon the real world, what is going on in New Brunswick?

MR. WHITE: Based on Statistics Canada's indexes.

Q. - I see. And I don't mean to be derogatory in any way since -- in any way, but this is just awful, this escalation clause. Did you read it?

MR. WHITE: Yes. I read it.

Q. - Did you understand it?

MR. WHITE: It takes a little bit of effort.

Q. - It does. And why don't we just take a look at it. It is at article 4.8, "Escalation" which is at part 4, page 7. It is towards the end of the agreement.

And there is a formula there. Do you see that?

MR. WHITE: Yes.

Q. - And if I could just go through my quick analysis of this formula. The payment gets increased. That is P equals the PO, the original amount or the base price before escalation, bracket and a bunch of calculations, right?

MR. WHITE: Yes.

Q. - And has this contract -- has work started under this contract at the present time?

MR. WHITE: Just advance work.

Q. - Just advance work. Would you go over -- in this formula here, we have -- and I can't quite make it out. It looks like LO. You have .52, that is 52 weeks times LO -- or is it LN divided by LO. Do you see that?

MR. WHITE: .52 is a percentage. It is not weeks.

Q. - All right. .52, percentage. That is right. Times LN over LO. And LO is what?

MR. WHITE: This piece here is recognizing labour contracts that AECL already has in place with its unionized staff.

Q. - Oh, yes. Well, what bothers me is the next line, LN?

MR. WHITE: Yes. That represents the labour increases they already have in their union contracts.

Q. - So what you are saying, although they haven't started this contract from the year 2000 until now, there is a 17 percent increase in the labour component times .52? That is what it means to me.

MR. WHITE: 2002. That is correct.

Q. - So could you tell me where in Canada labour rates have gone up 17 percent in the last two years, besides with AECL with whom you negotiated this agreement?

MR. WHITE: The nuclear industry has been extremely competitive --

Q. - I see.

MR. WHITE: -- in recent years. And AECL, in order to maintain competitiveness with Ontario Power and Hydro Quebec, in order to retain its people, has had to recognize that their people are underpaid with respect to the market in the Toronto area. And so that is what that represents.

Q. - So this was negotiated by your Toronto lawyers, recognizing the Toronto market. And you escalated the contract price by 17 percent in relation to the labour component over the past two years. And they haven't even started work?

MR. WHITE: Recognizes what exists in AECL's labour contracts for its engineering group. And this contract has -- I don't know the exact percent. But it is 40 or 50 percent engineering. And so it represents that engineering component of it.

Q. - And NB Power's experience in New Brunswick for the past two years, the people you are paying in this province, have you given them 17 percent?

MR. WHITE: No, sir.

Q. - I want to go back, Mr. Eagles, to these NB Power board minutes. And I'm almost done. I forgot to get you to give me some dollar figures.

CHAIRMAN: Excuse me, Mr. Gillis. What exhibit was that?

MR. GILLIS: Oh, that is A-6. And it is the last part.

CHAIRMAN: What date was the minute?

MR. GILLIS: The minutes were the 18th of December, 2001. And this would be at page number 15, unnumbered page 15. It goes 13, a couple of unnumbered pages. Then it goes to 18.

Q. - The licencing components, do you have those, Mr. Eagles?

CHAIRMAN: Sorry. At what page?

MR. GILLIS: If you go to page 13 and then flip over two pages.

CHAIRMAN: There is a couple of the pages that aren't numbered --

MR. GILLIS: Aren't numbered.

CHAIRMAN: -- before you get to 18, right?

MR. GILLIS: Yes.

CHAIRMAN: Yes. Go ahead.

Q. - Do you have that, Mr. Eagles?

MR. EAGLES: Yes.

Q. - Can you give me the maximum dollar figure with respect to the licencing components here? I forgot to pick those up. "CNSC requires improvements in ECC unavailability." What is that maximum dollar figure?

MR. EAGLES: I believe that was in the order of 10 million.

Q. - $10 million. Next one, "CNSC forces the installation of a more extensive severe accident containment heat sink"?

MR. EAGLES: I don't recall entirely. But probably in the order of five to 10 million.

Q. - And "CNSC forces increased scope of severe accident management instrumentation"?

MR. EAGLES: Again, in rough terms, I believe in the order of two to five million. I -- again I'm not certain on these numbers.

Q. - Next one, "Additional moderator subcooling margin required"?

MR. EAGLES: I don't recall that number specifically. But probably in the order of five million.

Q. - "Design changes arising from PSA"?

MR. EAGLES: Again I believe in that same order.

Q. - "Relocation of steam lines on main control room roof"?

MR. EAGLES: Again we dealt with that earlier in some questioning. And I believe the number in that is in the order of 75 -- 80 million. 60 million. Sorry, I have been corrected. 60 million.

Q. - 60 million?

MR. EAGLES: Yes.

Q. - Next one is "Commissioning scope for the safety systems"?

MR. EAGLES: I believe that was in the order of five million.

Q. - "CNSC could insist on commissioning addressed perceived deficiencies from the initial commissioning process"?

MR. EAGLES: Again I believe that was in that same order.

Q. - Next on, "Training program for licensed operators"?

MR. EAGLES: Again I believe in the same order of around 5 million.

Q. - "Current license risks"?

MR. EAGLES: I don't recall that particular number.

Q. - Let's flip over then several pages to the page numbered 18. And I forgot to ask you two of these.

The first one is "CNSC requires change beyond planned scope." Is that the $60 million one you just gave me?

MR. EAGLES: Page 18?

Q. - Yes.

MR. EAGLES: No. That would collectively address all of those items that we just spoke of.

Q. - So what is the dollar figure for that?

MR. EAGLES: Again would be the summation of all of those items that we just spoke of on that other page. Generally --

Q. - About 120 million? That order of magnitude?

MR. EAGLES: I didn't add them up. I don't know.

Q. - Well you had a couple of don't knows and the number 5's. But it is well over 100 million?

MR. EAGLES: I will take your math there.

Q. - Okay. And the last one, "Pressure tube and feeder tubes remaining life." That is the boilers. What is that figure?

MR. EAGLES: That is the reactor.

Q. - Reactor? Okay. What is that figure? Worst case scenario?

MR. EAGLES: Worst case scenario I think here was if in fact our outage started without advance warning as a result of an issue with pressure tubes and feeder tubes that it might require an extension of about three months.

So I think we were in the order of $50 million on that.

Q. - Now just on this page, those six items, could you rank them most likely to least likely, 1 to 6?

MR. EAGLES: I think again this information is that which was contained within the Ernst & Young report. And my quick view of this, without the appropriate levels of discussion with all the parties that were engaged in preparing that information, is only I guess an off-the-cuff answer.

I think the likely order that would be I believe in line with the information presented in that report is that some, and not likely all, but some of the changes that were listed with the CNSC might be in fact required. And so that would be the highest.

That the likelihood of moderator recovery systems and pressure tubes would likely be second, third. And again we are only going in order here, that the PVC cable is likely fourth. And moderator inlet nozzles and calandria tube sheet weld ductility fifth and sixth.

And I believe that is likely consistent with the information that we have presented in the report. And again without consultation with all the parties that were I guess used and consulted in the preparation of that information, this is only my offhand view at this time.

MR. GILLIS: I want to finally deal with each of the members of the panel in relation to their evidence.

Mr. White, you express an opinion in your evidence at page 14. This is in book A-1. You do state and it is at line 25 to 28, "I have a high level of confidence that this project can be delivered on time and within budget. And that the refurbished plant will provide a long term reliable supply of power."

Expressing that opinion Mr. White, do you hold a degree in nuclear engineering?

MR. WHITE: A Bachelor in mechanical engineering.

Q. - Have you published on the subject matter refurbishment of reactors whether texts, chapters and texts, peer reviewed scientific articles, non-peer reviewed scientific articles anywhere in the world?

MR. WHITE: No, I haven't. I have run power plants for 35 years.

Q. - And your involvement with Lepreau I believe started about five years ago?

MR. WHITE: My involvement with Lepreau started in 1975 and I worked there till 1986. And I came back with Lepreau in 1997.

Q. - Now the next one that I have is Mr. Eagles. In your evidence at page 8, line 25 to 27 you write or state, "I am quite confident that the project construction can be completed within the 18 month window."

Now with respect to that, what has been your experience? We have got your academic background and the articles that you have published. What has been your experience with respect to the design, construction of nuclear reactors? Which ones have you been involved with?

MR. EAGLES: I have no experience in design.

Q. - With respect to management of the construction of a nuclear reactor, which reactors have you been involved with during the construction phase?

MR. EAGLES: I was involved only in the operation of Lepreau in the earlier years.

Q. - Okay. Mr. Pilkington, in your evidence at page 19, line 25 to 27, you express an opinion. I will read you what you said, "The problems that Ontario Power Generation dealt with after retubing included work performance, human performance and equipment performance were industry wide problems stemming from a failure to recognize the effort necessary to achieve high performance over the full life span of a nuclear power station."

Now with respect to a human relation issues concerning nuclear power stations, what publications do you have in that area, if any?

MR. PILKINGTON: Human relations? I was talking more about human performance issues.

Q. - Human performance, yes. All right. I call those an HR type issue?

MR. PILKINGTON: Okay.

Q. - Do you have any publications in that area?

MR. PILKINGTON: I co-authored a paper that dealt with -- that dealt with effectiveness of organizations.

Q. - All right. And where do I find that published?

MR. PILKINGTON: I was in the proceedings of the 2000 CNS Maintenance conference in Toronto.

Q. - So you have published this paper in that Canadian Nuclear Society annual meeting so to speak. Is that what it is?

MR. PILKINGTON: Well it wasn't the annual meeting. They have -- annually, they have a maintenance conference.

Q. - All right. And with respect to equipment performance, what publications do you have?

MR. PILKINGTON: I don't think that any papers that I have authored would deal directly with equipment performance.

Q. - And the industry wide problems stemming from a failure to recognize the effort, what analysis did you perform to make this statement?

MR. PILKINGTON: Well that is based on -- on what I have learned about what other stations have done in recognizing performance issues and in dealing with those.

Q. - So this is the old boys' network you had talked to and said what are your problems with performance and how are you updating and keep your staff current, keep them interested?

MR. PILKINGTON: I guess I would hardly refer to the use of operating experience in the industry as an old boys' network.

Q. - Well it is an informal network I gather, that you would talk with other plant managers and ask of their experience?

MR. PILKINGTON: Actually I wouldn't say that it is completely informal. Workshops are held.

Q. - I see. Okay. I want to take you to your next opinion, Mr. Pilkington at page 23.

MR. PILKINGTON: Just before you do. We do have also access to operating experience on things like Internet websites. And sharing of experience in the industry is proven to be very beneficial in helping plants to make improvement.

Q. - Look -- and I am pleased that you use that level of research as a tool in order to come up with this of evidence. Because my questions is dealing with nuclear engineering all came from the Internet too.

MR. WHITE: I would add to what Mr. Pilkington has said there. Our operating experience program is on-line with the World's Association of Nuclear Operator and has access to and we contribute to World Nuclear Experience. So that all nuclear plants in the world have access to this information.

Q. - Page 23, Mr. Pilkington. Your opinion, it's the strongest one yet, line 15, "This combined with the impact on equipment condition of a major plant refurbishment would position Point Lepreau to operate more reliably and at lower cost following refurbishment and to regain its position as a world class nuclear facility."

Now that opinion is based upon what, just your experience, or a detailed analysis of other plants, all of the problems the other plants have had and the planned changes that you have proposed to implement? Just exactly what?

MR. PILKINGTON: That is mainly my opinion after some 25 years in the industry.

I might point out that other plants have been successful in improving their performance. And we have had opportunities to visit those plants, talk to those people. And we have been able to benchmark against those plants.

Q. - And these other plants that have improved performance you have been benchmarking against them and visiting them for the past 10 years any way? You like to stay current. Right?

MR. PILKINGTON: I would not say for the last 10 years. I think that probably up until the latter part of the last decade we probably didn't get out enough and look around enough.

MR. GILLIS: Those would be my questions Mr. Chairman.

CHAIRMAN: Thank you Mr. Gillis. While Mr. Gillis is moving back. J.D. Irving have any questions?

MR. MOSHER: I have a few points of cross-examination.

CHAIRMAN: You do?

MR. MOSHER: Yes.

CHAIRMAN: Mr. Gillis will move and you can come forward. Perhaps we will take a five minute recess.

(Recess)

ri CHAIRMAN: Go ahead, sir.

MR. MOSHER: Thank you.

CHAIRMAN: I'm sorry. We are missing one of the Panel. Mr. Groom is in a conversation.

I do apologize, but while we are waiting for the witness, you have been sitting in the very, very back of the room. Would you identify yourself for the sake of the record, please?

MR. MOSHER: Yes. It's Mark Mosher from JD Irving.

CHAIRMAN: It is Mark. Okay. Thank you. Okay. Mr. Mosher, go ahead.

<u>CROSS-EXAMINATION BY MR. MOSHER</u>:

Q. - Thank you. I will be very, very brief. I think I only have five or six questions, and most of them are clarification on questions that have been previously asked. The first question is in document A-5, JDI interrogatory 16.

CHAIRMAN: Is that JDI 16?

MR. MOSHER: Yes.

CHAIRMAN: Okay.

Q. - The question was the cost of a four month delay in the project, and the response was that it was -- would impact the project's net present value by 63 million. And it's a follow-up I believe from a question that David Coon asked whether this included the cost of replacement power or not. And the answer was given that it did include replacement power. Is that true?

MR. WHITE: This includes three items. One is the replacement energy because this covers a winter period and we wouldn't have enough capacity. It also covers buying capacity, and thirdly it covers the interest during construction to extend the project by four months.

Q. - So based on the $500,000 minimum level of replacement energy a day for four months, that works out to be about $60 million, so is that number correct? I'm just --

MR. WHITE: If you want the details of the calculation you will get that from Panel B, but this recognizes that we have Coleson Cove running on Orimulsion at that point in time. And so we have got a bit more economic fuelling price than the oil price we might normally replace the energy with.

Q. - Okay. And maybe this is also a question for Panel B then. The mechanism for the 500,000 to 750,000 a day that was given for the cost of replacement energy, is that a calculated value between just your differential variable cost of generation or is that a historical purchase and energy replacement number?

MR. WHITE: I think Panel B again calculated the details of that and if you want them they will give it to you, and it does recognize the difference between peak demand times, either -- normally wintertime, and off peak demand times which might be spring and fall.

Q. - Okay. I will put that one to Panel B then. The next one is a very quick point of clarification. It's exhibit A-16 which is the slide presentation, slide 66. In our experience when we go into fixed price contracts with different companies -- I'm just curious, you have labelled them firm price contracts. Do you have -- is there any significance between a firm and a fixed price or are they all the same?

MR. EAGLES: Yes. The firm price referenced here is subject to escalation as we were speaking of with Mr. Gillis just recently.

Q. - Okay. On the escalation --

MR. EAGLES: Yes.

Q. - -- the weightings are such that 52 percent of it, if I read it correctly, is based on labour, 18 percent is M which I assume is material, and then third the remaining 30 percent is C which is just some consumer price index inflation?

MR. WHITE: I think M is also labour.

Q. - Right. So basically 70 percent of the escalation is based on labour which is escalated at the 17 percent?

MR. WHITE: 17 percent is the first three years.

Q. - First three years?

MR. WHITE: This contract is based in -- I believe it's December '99 dollars?

MR. EAGLES: Yes.

MR. WHITE: So it covers for 2000 and 2001 and 2002. And at 2002 you have got 17 percent labour escalation there.

Q. - Right. So the -- going back then to slide 66 on A-16, the escalation in there at 65 million is 100 percent of that 65 million accounted for solely in the escalation formulas in the two contracts, or is there additional money in that escalation for other escalation outside in terms of NB Power's costs?

MR. EAGLES: No, NB Power's costs were also escalated.

Q. - So it's AECL's and NB Power's escalation in there?

MR. EAGLES: That's correct, yes.

Q. - Okay. And the 70 percent, is that based on an estimate on the amount of 70 percent of the work for this project is engineering?

MR. WHITE: No. It recognizes that -- and again, I don't know the right numbers, but about 50 percent of this project is engineering, okay, and then it -- so that's all labour, and then it represents the labour portion for the installation work. And so it recognizes the material components are small portions of the overall package.

Q. - And then the 30 percent that is escalated based on CPI, is that escalation for materials related issues, or --

MR. WHITE: 30 percent on the retube contract would be related to materials predominantly, and I think the number is a little bit less in the refurbishment contract.

Q. - Okay.

MR. WHITE: It's maybe 17, I think.

Q. - On that same exhibit A-16, slide 66, you have a contingency in there of $35 million which works out to approximately five percent of the total project before interest during construction. Based on other large projects is five percent high enough to cover any contingencies and/or change of scope?

MR. EAGLES: Again as I had mentioned in my presentation, the amount of contingency allocated to the project was assigned on the basis of our understanding of the work necessary to be done, our firm price contracts that we have with AECL for the conduct of all of that firm price scope defined in the contracts, and therefore the $35 million, which also is subject to escalation and interest during construction and grows to about 44 million at the end of the project cycle. That amount is in essence defined to address scope that is not in the contracts today. And so it's referenced as well to the NB Power costs. So we believed it to be an adequate contingency for the work, also reflecting the fact that within AECL's contracts they have a contingency to manage the project scope that they have defined under their responsibilities.

Q. - So is there -- are you saying that in the two contracts with AECL that there is built-in contingencies in there?

MR. EAGLES: I would assume that AECL has covered themselves to manage the -- to complete the work that they need to complete under their firm price contracts.

Q. - But you are not aware of what percentage contingency they have added?

MR. EAGLES: Not entirely aware of the contingencies they have there.

Q. - Okay. And what is your experience in the past on large power plant projects for an amount of contingency that has been appropriate?

MR. EAGLES: I believe that in the hearing completed in front of this panel back in the fall, the Coleson Cove project had a contingency assignment of about $71 million but that reflected that only about 45 percent of their construction project was a firm price at the time.

So we believe that this is in order -- is in line with the level of firm pricing that we have here.

Q. - The next one is based on exhibit A-5 which is the Province of New Brunswick interrogatory 5, just an additional question on that.

And this question may have been asked in a number of different ways, but based on the current contract price of $845 million, did NB Power have any discussions with AECL where AECL would take on basically the project as an EPC style construction with NB Power taking no risk other than consequential damages for replacement energy, that sort of thing?

MR. WHITE: We did have discussions with AECL relative to taking on not the total EPC role but a significant portion of the capital cost to execute this work. As I said originally the Hagler Bailly studies had indicated that this refurbishment would be in the order of $500 million. And we looked at the AECL offerings and were interested in seeing if we could get capital cost involvement in the order of about half of that number. Because of AECL's structure and the federal Acts that they operate under they apparently cannot borrow money. And so they had to advance the money out of profits or monies that they would have from other work. And their limit was in the order of about $100 million.

So in order to get up to the about 50 percent level, 250 million, we looked at different ways to do that and that's where the plant performance agreement actually came into vogue. So instead of putting the money on the front end they put up 225 million against the performance of the station over the 25 years, with a $24.9 million limit on a yearly basis. So that's how that evolved.

Q. - Okay. So you are not aware of anybody that would be willing to take on this project in a complete zero risk fashion?

MR. WHITE: We did have an offer from NUCO that offered to put up the money for the project. We would lease the plant to them and they would hire us to operate the plant for them and we would be the sole recipient of the power out of the plant. And when we evaluated that proposal it was more expensive than the natural gas option was. Therefore we discounted it at that time.

Q. - Do you now how much more expensive it was than the gas?

MR. WHITE: I guess Panel B would probably give you the right answer to that. I could guess at it, but --

Q. - Okay. Next one is a follow-up to the PUB interrogatory 11. The question relates to the unit cost factors reflect US experience. Basically the response was that unit cost factors in this study reflect US experience with worker product productivity in decommissioning and that these should be reasonable proxies for Canadian productivities. Has that been your experience in the past with different large capital projects working with outside consultants?

MR. WHITE: Maybe I can ask Mr. Groom to answer this.

MR. GROOM: Yes. Again would you please repeat your question so I can fully understand it?

Q. - Well the question relates to labour productivities. And maybe I will just give you some of our experience with large capital projects.

Whenever we work with outside consultants we use a company -- construction -- building construction cost data RS Means which is a publication that cites labour and productivity across different jurisdictions. And based on those factors we always see very significant deviations in labour productivity from one province to the other or even some cities. And in the response to the PUB you basically say that the labour productivity factors that they have used reflect those in the US.

I guess I'm asking in your experience what do you typically use when you look at labour productivities and how do you justify the labour productivity factor from the US being similar to Canadian?

MR. GROOM: I'm not in a position to identify what the general experience of the corporation has been. In this particular case what we did was hire a consultant and you will find in the evidence provided -- and I think it's in PNB-57 -- the detailed cost study that was done. In that the consultant, using indexes that had been carried out for other domestic utilities, looked at the labour productivity performance from other construction sites in the Maritime regions and identified a correction factor in order to use the basis numbers that were available from the United States in applying the indexes and coming up with the labour estimates. And those are included in -- explicitly in the index and in the data that's provided in those reports.

Q. - Okay. Maybe then my question is more the second paragraph in the response, the last sentence. It is reasonable to assume that Canadian and US trades produce at similar rates. Is that what has been used in this estimate?

MR. GROOM: Well we used those as the basis because those are related to the work breakdown structures that are available in the industry, tables that are used for detailed analysis of the work. And then we prorated them for application in the maritime region in coming up with the base costs from each task in the estimate that was done for Point Lepreau, so that we are corrected for labour productivity in this region, expectations.

Q. - So in that case recognizing that any time you do a labour estimate there is always some estimate of labour productivity. If those labour productivities are incorrect who takes the risk on that additional labour costs, is that AECL?

MR. GROOM: Well in this particular case, as I mentioned in evidence given a little earlier, this particular cost study is done as a part of our ongoing requirements under our license, as a part of our operation and maintenance evaluations. In this particular evaluation we also provided a contingency, so the contingency is anticipated to be sufficient to cover any potential risk from that sort of variation that may occur. That cost is not reflected in our direct cost for the refurbishment, but rather reflected in our operation and maintenance costs. I hope that answers your question.

MR. WHITE: The only place that these numbers -- this is not a contract with AECL. Okay. The place where these numbers are used is relative to the economic analysis of the alternative gas versus nuclear.

Q. - Oh. So this is not what AECL used in their estimates?

MR. WHITE: No. This is not a cost for -- this is not part of the contract for AECL. This is decommissioning studies to estimate what the future costs would be. And from the regulator's point of view, to make sure that we have a credible plan to execute that piece of work and it's updated. And secondly, to make sure that the amounts of monies that are being set aside in accounts for decommissioning fairly reflect what the current estimates are.

Q. - And one last question, which is also exhibit A-5, the Province of New Brunswick exhibit 2. PNB Interrogatory number 2. The second page there is a chart that shows the comparison of forecasts and actual capacity factors.

MR. WHITE: Is that PNB-2?

Q. - PNB-2, yes.

MR. WHITE: Page 283.

Q. - Page 283, yes.

MR. EAGLES: While we are waiting for people to get their pages, just in point of clarification with respect to the AECL contracts, the issue of worker productivity is within AECL's risk.

Q. - Okay. Ready? Just if I go down through this list of the budgeted outage days and the actual outage days and just do a very simple average of the outages between 1993 and 2002, it shows a standard difference of about 50 percent over the budgeted downtime. And that's just basically the total number of actual days of planned work divided by the total number of budgeted days. There is about a 50 percent variance in two of the shutdowns. The 1993 shutdown and the 1998 shutdown were the only two shutdowns where the actual came in slightly below the budgeted amount. And I guess it gets back to -- in this particular shutdown we have 18 months that are scheduled.

What contingencies have you in place to ensure that if this -- if history repeats itself and we carry on with this type of history, what contingencies do you have in place to make up for that?

MR. WHITE: First off I think you certainly see from the mid

90s there, '95 onward, this discrepancy that you refer to, that was a period of weak performance at the station in which we were facing a number of unplanned outages which then affect our ability to properly deal with the planned outages and the regulatory demands being increased upon us in terms of getting out of our regular planned outages.

And if you -- secondly, our effort has been to improve equipment performance and human performances Mr. Pilkington referred to and in our most recent outages, the 2000 outage, which was actually planned for 76 days, when we went into it, our -- have I got the right number, Bill? Yes, 77 days. And we actually completed it in 75 days as the detailed plans, so we were two days ahead of time on that one.

And our current outage that we are in now, it's a little bit too early to talk about it, but we are within about three and a half days of the schedule on that one as well. So we have improved our ability to deal with the schedule adherence.

The clue to most of these planned outages is really planning and preparation. And if you don't get your planning and preparation right, you are in trouble before you get started the outage.

So the real clue to the execution of a refurbishment outage is the two years that we have spent now understanding properly the scope of work to be done, so that we have a proper handle on that through the condition assessment processes, so you don't get emergent work, and the second one is through the next four years of engineering work, to have the engineering work properly completed, the installation packages ready before you ever shut the plant down.

And again, if you don't have those things you are in trouble before you start. If you have those things they are the solid base for being able to execute the work as you have planned it.

Q. - Okay. And maybe just to tie that back to one of my first questions about AECL potentially taking this on as a complete 100 percent risk free. With that much up front work, why do you believe AECL was not willing to take that on?

MR. WHITE: I'm sorry. I don't think I quite understood the essence of your question.

Q. - I guess it gets back to the concern over time overrun through the winter period if this shutdown does not come up on time.

MR. WHITE: Yes.

Q. - You have talked a lot about all the preparation work that you have done, the two years of engineering and then there is another four years of work that can be done before the actual shutdown starts. So there is a tremendous amount of work that will have gone on before the shutdown starts. And that you feel will allow the shutdown to come in on its 18 month scheduled timeline.

MR. WHITE: Well that preparatory work, and part of that you saw in the film clips of the retubing process, where we have done tremendous amounts of computer graphics and analysis of how you actually sequence and do this work. So in essence we have already built the real program of how you do it out there in the field, and optimize that capability.

Secondly, the large part of this work of course is engineering work that gets done before you ever arrive there, and when we arrive on site to do the work we have an integrated operating group with the plant operating personnel. You are in a radiation environment, which complicates normal work. But that's part of us allocating a significant number of our people to AECL during the performance of the work, essentially operating its facilitators to allow them to operate effectively within a radioactive environment, which is a little less than our normal operating environment because we have actually defuelled the reactor.

And thirdly, we structured the contract so that there are significant bonuses to AECL to in fact get done early. We funded up front work by AECL to further study the schedule and the tooling and methodology. As Mr. Eagles identified, I think we have got a one month advance on the current 12-and-a-half month schedule now, and we are looking for potentially another month on top of that. So if we gain that that's one to two month's float that we got on the retubing work. And our bonuses are such that it's to AECL's advantage to get that work done in that time. Not only they feel they can do it but they have got a good chance of earning those bonuses. So we have kind of focused the effort on the front end of good planning, getting the engineering done early, good integration with the station, and then pay good bonuses for them to get it done early.

And so we feel that those things are many of the keys to getting the job done.

And the last one is the key is putting it all in one bucket. When you see these jobs and they are spread out over a number of contracts or contractors, there is a very great possibility of things falling in the white spaces as you try to transfer and this party complete the work necessary for the next party to start. And if you put it all in one party's hands you tend to get rid of that particular hurdle as well.

So those are kind of the contract strategies that we employ here to give us the best opportunity to complete this work and complete it early.

Q. - Could I just have one very quick clarification on a statement that was made this afternoon on Mr. Gillis' cross-examination, when you were saying that currently NB Power has enough capacity during the spring, summer and fall to meet all of its customers needs with Point Lepreau out. That's correct?

MR. WHITE: Again Panel B will tell you exactly where our shortages and capacity are, but normally we are able to export power on the shoulder months, spring and fall, and in the summer months, and therefore that capacity can come to bear on the fact that Lepreau is out.

Q. - During the current Point Lepreau shutdown that is scheduled for 66 days, during one week Belledune was down as well as one of the two units at Dalhousie was down concurrently with Point Lepreau.

MR. WHITE: That's correct.

Q. - So during that period of time three of the fairly large power plants were down at the same time. What type of contingencies does NB Power have for multiple failures during the Lepreau shutdown?

MR. WHITE: Again Panel B will answer the question more accurately than I can, but in those instances we had to purchase power. We had to purchase it off the market, shortages. And I think probably you were also affected because we have --

Q. - That's why I'm questioning. That's the end of my questions.

CHAIRMAN: Thank you, Mr. Mosher. Mr. Hyslop?

MR. HYSLOP: I have one matter that was just brought to my attention. I would like to have a few minutes to speak with Mr. Hashey and Mr. MacNutt. Obviously given that it's about 4:30, my preference would be to do my cross-examination altogether, but we can start if the Board feels that way. But there is a matter, it relates to the confidentiality of information and us wanting to add a person to it in relation to the possible right to information application. So I wanted to deal with that with them first and then approach the Board.

CHAIRMAN: Go ahead.

MR. HYSLOP: Thank you.

Thank you, Mr. Chairman. There is some reason to believe, although to our knowledge it has not occurred, there may be an application made under the Right to Information Act in relation to the matters that were discussed on Thursday, the confidential matters.

It would be necessary if that came to the Minister that it be referred out to a solicitor for the Department of Justice, the request. And obviously that solicitor would have to have the opportunity to review the confidential documents.

Our request is that the order be amended to add a solicitor with the Department of Justice -- sounds like a hockey trade, to be named later, I guess. And in that regard, I would undertake to make that solicitor aware of the nature of the order and -- and the extent of the order that has been made by the -- by this Board.

I spoke briefly with my colleagues Mr. MacNutt and Mr. Hashey. And there may be others that may wish to comment. But I don't believe there is any objection to this.

CHAIRMAN: Just so I understand, under the Freedom of Information Act that's a whole different process.

MR. HYSLOP: Yes.

CHAIRMAN: And this Board certainly doesn't have the jurisdiction to make an order that's going to either restrict or otherwise that process, would it?

MR. HYSLOP: No. But if we want to give the materials in question, I would be in contempt of your order if I was to give a copy of the materials in question to a solicitor with the Department of Justice to examine so they could respond to the request.

CHAIRMAN: Look, I have never had the great fortune or misfortune of making an application under that particular statute. But that has to be made of a Minister of the Crown does it?

MR. HYSLOP: Yes.

CHAIRMAN: And then the applicant as I understand it would deliver the documents that the Minister requested and then they would be made -- given to the applicant under that -- that particular legislation, would it not?

I'm just -- to me, you see, and I will speak with Board counsel after this hearing is over. But to me that's a whole total separate thing.

I mean if, you know, there could be any -- another -- they could be any other number of individuals or organizations that the applicant would choose to release that document to totally exclusive from our process or the Freedom of Information Act.

And they would be free to do that, would they not? You know, I -- Mr. Hashey, what are your feelings on that?

MR. HASHEY: I agree. I think the -- in hindsight I believe the application has to be to the Minister, the Minister who is in control of NB Power. The Minister then must respond.

I don't see anything that ordered here that would affect our ability to give those documents to the Minister in that process for his review and decision making. I mean entirely separate I think.

CHAIRMAN: Yes. If tomorrow morning after counsel, Mr. MacNutt and I have had an opportunity to talk further about this and what not, if that seems to be a more convenient thing to do, Mr. Hyslop, in this circumstance, we will do it. But certainly --

MR. HYSLOP: Just so there is no confusion, the way I understand it would work, a letter would be sent to the Minister of Natural Resources and Energy requesting that NB Power make these documents public.

In order to assess the validity of the request, the Minister would refer it to a solicitor in Legal Services with the Department of Justice. And he wouldn't have the documents. He would just have the request.

At that point in time, that particular solicitor would come into possession of the documents. Now he may do so just as a right of process. But I didn't want myself delivering a set of documents to anybody in view of your order.

CHAIRMAN: Yes. All right. I think -- Mr. MacNutt?

MR. MACNUTT: Just one final point. Clearly NB Power could deliver the documents to the Department of Justice solicitor and would not be in contempt of the order, because NB Power would be voluntarily delivering them.

I believe you put in the consent that the documents may be released with the consent of NB Power. So NB Power would be providing the documents to the Department of Justice solicitor for advice.

If they sought to protect them from release, they would be put in an envelope and handed to the judge, who would then deliver -- make a decision upon hearing argument.

CHAIRMAN: I'm going to leave it where I left it. Thank you though, Mr. MacNutt. And we will chat later.

And Mr. Hyslop, it is 25 to 5:00. I don't think we will ask you to start. Can you give the Board an estimate of how long you believe tomorrow that --

MR. HYSLOP: I would not be longer than the morning. And in fact I'm not going to rehash a lot of very extensive cross-examination.

Going back to Mr. Hashey's question earlier on the in-camera hearings, in view of the positions taken by some of the Intervenors, if we were to go into the in-camera sessions afterwards, I would have some cross-examination on that. That might take the total morning between the two.

CHAIRMAN: Yes. And does the City of Saint John have any questions?

MR. CAMPBELL: No questions.

CHAIRMAN: All right. We will adjourn then until 9:30 tomorrow morning.

MR. HASHEY: Can I have just a minute with Mr. Little? There may be another point that we would like to raise this afternoon. It will just take a second.

Got an issue, Mr. Chairman, maybe you should think about over the evening. As I mentioned, I was not being facetious, that Mr. Groom is due to get an award in Toronto tomorrow, which is quite prestigious. He will --

CHAIRMAN: Is Mr. Gillis going to Toronto?

MR. HASHEY: And he has agreed to go, as long as Panel B stayed. Anyway the long and the short of the thing is that Mr. Groom had a flight sort of at the end of the morning, at noontime.

And I'm just wondering how we could handle that to get him out of here. Maybe Mr. Hyslop could ask the questions that are directed in Mr. Groom's direction, which may not be as many as others.

And that leaves the situation of Board counsel. And I respect that. And maybe we would have to bring Mr. Groom back or make other arrangements there. That is a bit of an inconvenience. And it's -- alternatively are there later flights? And that is a problem.

CHAIRMAN: And he is due to come back tomorrow evening?

MR. HASHEY: When are you back, Mr. Groom?

MR. GROOM: Apparently, the plans were to be back for Monday. So the other alternative --

CHAIRMAN: Are you talking about today or --

MR. HASHEY: No.

CHAIRMAN: -- a week from today? What kind of prize is this anyway? I'm being facetious.

MR. GROOM: It is an award from the Canadian Nuclear Association. At any rate, obviously, the indulgence or the activities of the Board are the most important priority. And we will --

CHAIRMAN: Well, we don't want to interfere with it. But certainly -- look, let's --

MR. HASHEY: We will work on that.

CHAIRMAN: -- take it under advisement over the evening. And we will deal with it in the morning. I think you should plan on going to Toronto.

MR. GROOM: Thank you.

CHAIRMAN: Okay. Good. All right. We will break till 9:30 in the morning.

(Adjourned)

Certified to be a true transcript of the proceedings of this hearing as recorded by me, to the best of my ability.