

LEGISLATIVE ASSEMBLY OF ALBERTA

head: INTRODUCTION OF BILLS

Title: Thursday, November 12, 1981 2:30 p.m.

Bill 251
The Denticare Act

[The House met at 2:30 p.m.]

MR. NOTLEY: Mr. Speaker, I request leave to introduce Bill No. 251, The Denticare Act. The Bill would set out the legislative framework for the introduction of a comprehensive denticare program in Alberta.

[Leave granted; Bill 251 read a first time]

PRAYERS

[Mr. Speaker in the Chair]

head: TABLING RETURNS AND REPORTS

MR. LEITCH: Mr. Speaker, I wish to table a reply to Motion for a Return 134.

head: INTRODUCTION OF VISITORS

MR. KOZIAK: Mr. Speaker, it's my distinct honor this afternoon to introduce to you, and through you to the members of this Assembly, visitors in your gallery: a very distinguished musicologist, composer, and conductor, Professor Hnatyschyn from Vienna, Austria. Professor Hnatyschyn, who will be celebrating his 75th birthday while in Canada, has written over 1,000 religious, folk, and classical works since his first divine liturgy in 1938. In 1977, the Austrian government conferred upon him the degree and title professor, and presented him with the golden service cross for his musical accomplishments. Mr. Hnatyschyn was also honored with the silver cross by Pope John XXIII, and was awarded the Benemerenti Medal by Pope Paul VI.

Mr. Speaker, Professor Andrij Hnatyschyn is without doubt the greatest living Ukrainian composer. He is here in connection with a production, *Steppes in Chorus*, which will take place on November 20 in the Jubilee Auditorium, at which time he will be honored and a number of his works will be performed.

On behalf of my colleagues, Mr. Speaker, I would like to address a few words to Professor Hnatyschyn in his native tongue.

— *jak ljubitel' Ukrajins'koji Muzyky,*
— *jak chlen narodnix itserkovnyx xoriv,*
— *jak shanuval'nyk vashyx muzychnyx tvoriv,*
ja maju pryjemnist' v imeny vsix meshkantsiv provintsiji
Al'berty previtaty vas v Edmontoni. i prydstavyty vas
mojim kolegam v Legislaturi.
Proshu vstatyi pryjnjaty nash shchyryj pryvit i nashe
pryznannja.

[As submitted]

Accompanying Professor Hnatyschyn are Mr. Peter Prokopiw and Eugene Zwodzsky, a musicologist in his own right in the Edmonton field. I would ask that they all rise and receive your welcome.

head: PRESENTING REPORTS BY
STANDING AND SELECT COMMITTEES

DR. REID: Mr. Speaker, I wish to present the report of the Standing Committee on The Alberta Heritage Savings Trust Fund Act relating to the 1980-81 annual report of the Alberta Heritage Savings Trust Fund.

head: INTRODUCTION OF SPECIAL GUESTS

MR. SCHMIDT: Mr. Speaker, I have the privilege this afternoon to introduce to you, and through you to the members of this Assembly, the 1st Devon Scout Troop and their leaders. The troop is to receive the Governor General's medal and a certificate for meritorious conduct. The awards will be presented to the troop in a ceremony at Government House in Ottawa on November 20 by Governor General Schreyer, who is the Chief Scout for Canada.

The medal for meritorious conduct will be awarded for an incident in July 1980, in which members from the scout troop rescued three men from a mountain stream. The certificate for meritorious conduct will be awarded for a rescue one month later, in August 1980, of three girls who were canoeing in the North Saskatchewan River and became separated from their party. The scouts travelled three long hours by canoe to deliver the three girls to the Devon hospital.

Mr. Speaker, I wish to add that a double group award has never been given in Canada before. The Devon Scout Troop, their leaders, and some very proud parents are seated in the public gallery. I would ask that they rise to receive the welcome and congratulations of this Assembly.

MR. BATIUK: Mr. Speaker, it's a real pleasure for me this afternoon to introduce to you, and through you to the Members of the Legislative Assembly, 12 social studies 30 students from the Holden school in my constituency. The number is quite small, but this cannot be said of quality. In reviewing the list of recipients of the Alexander Rutherford scholarships, I noted that one of the grade 12 students who attended the Legislature last summer is a recipient. The students are seated in the members gallery. They are accompanied by their teacher Mr. Burden and their bus driver. I would ask them all to rise and receive the welcome of the Assembly.

MR. KNAAK: Mr. Speaker, it gives me great pleasure today to introduce to you and to my colleagues in the House 30 grade 6 students from Duggan Elementary school and their teacher Mr. Rodger Langevin. I would ask them to rise and receive the warm welcome of this House.

MR. BOGLE: Mr. Speaker, I'd like to introduce to you today, and through you to members of the Assembly.

representatives from two organizations in Alberta. People First of Alberta are, by their own definition, a consumer advocacy group of individuals who are endeavoring to find ways to help handicapped people in areas such as legal and moral rights, as well as community living accommodations. Three members of that organization are in the members gallery today.

As well, Mr. Speaker, I would like to introduce members of the executive of the Alberta Association for the Mentally Retarded. The delegation is headed by the president, Pam Friesen, from Fort McMurray. As all hon. members are aware, this evening in the Legislature cafeteria we will be having our annual dinner meeting between members of the Alberta Association for the Mentally Retarded and members of this Assembly. Would they please rise and receive the warm welcome of the Assembly.

MRS. CHICHAK: Mr. Speaker, it gives me pleasure today on behalf of my honorable colleague for Edmonton Kingsway to introduce a group of 11 students from the Coralwood Academy in the Edmonton Kingsway constituency. They are here with their group leader Mr. Gary Townsends. They're all very welcome here. I'm pleased to have this opportunity to present them to you and to members of the Assembly. I believe they are in the members' gallery. I would ask them to rise and receive the welcome of the Assembly.

MR. ZAOZIRNY: Mr. Speaker, I have saved the very best for the last. I am delighted to be able to introduce to you and to Members of the Legislative Assembly this afternoon some 45 grade 8 students from the Ian Bazalgette school in the constituency of Calgary Forest Lawn. They are here to see the Legislature in action. They are accompanied by teachers Mr. Kerr, Mrs. Will, and Mr. McCauley; their bus driver Mr. Sunderland; and by one of the parents as well. Mrs. Bonnie Ladner, who in addition to being a parent is also the president of the Dover community association and the constituency office co-ordinator for the constituency of Calgary Forest Lawn. I would invite all of our guests in the public gallery to rise now and receive the cordial welcome of the Assembly.

head: ORAL QUESTION PERIOD

Health Care Insurance

MR. R. SPEAKER: Mr. Speaker, my question is to the Minister of Hospitals and Medical Care. It is with regard to the negotiations going on between the Alberta Medical Association and the Alberta health care insurance plan. Could the minister indicate what involvement he has had to this date — I understand the minister has had a meeting — and the present stage of negotiations?

MR. RUSSELL: Mr. Speaker, the negotiations are ongoing at the present time. In fact, according to the last advice I received, I believe there's another meeting scheduled for today. They have traditionally taken place at this time of the year. I don't get involved directly. This year I did meet with the president of the AMA, at his request, on the understanding that we would not get into negotiating details but rather would have a general discussion.

MR. R. SPEAKER: Mr. Speaker, a supplementary question to the minister. It is with regard to Section 40 of The Health Care Insurance Act. Under that section of the Act, it is permissive that the government establish a benefit review committee or not. Has the minister reviewed that section of the Act, and would the government change their policy in that area and establish a formal bargaining procedure with the Alberta Medical Association?

MR. RUSSELL: Mr. Speaker, shortly after I assumed this office I gave careful review to that, and proposed that Alberta use the method used by the government of Ontario, which seems to be working well: a permanent seven-member committee that would sit throughout the year to review matters of that kind. The AMA turned that proposal down and wish to continue under the existing system.

MR. R. SPEAKER: Mr. Speaker, a supplementary question to the minister. Could the minister indicate whether extra billing is part of this negotiation, or is that one of the matters discussed between the president of the association and the minister?

MR. RUSSELL: No. At no time did the matter of extra billing enter the discussions, Mr. Speaker.

Heritage Savings Trust Fund Auditing

MR. R. SPEAKER: Mr. Speaker, my other question today is to the Provincial Treasurer. Could the Provincial Treasurer, after reconsideration the last few days, table the management letters in his possession to clarify for Albertans, once and for all, the reasons for the \$60 million realized loss in the Heritage Savings Trust Fund and, as well, document the management procedures put in place to prevent further losses or possible fraud?

MR. SPEAKER: Quite candidly to the hon. Leader of the Opposition, I have some difficulty with the propriety of a question which is repeated daily or every 48 hours. It seems to me that before that should happen — and there are strictures about that kind of thing in the rules relating to question periods — there should be some indicated change in circumstances. Otherwise we might have members, for whatever reason, just deciding on certain questions and asking the same. . . . I mean, if it can be done with one, it can be done with two or three dozen questions. They could ask the same two or three dozen questions every day.

MR. R. SPEAKER: Mr. Speaker, on the point of order raised in regard to the question, whether there are changing circumstances and whether this question should be raised again in a form similar to the way it's been raised before: one, a minister can review the matter and change his opinion and present documents. I feel the documents are important enough; that's why the question is repeated. Secondly, your point with regard to changing circumstances. As I am able to travel home — and the opportunity prevailed yesterday — I was in a large group of people, and the question was raised repeatedly: what has happened to the \$60 million lost by the government? I said, well, I'm going to ask the question again in the Legislature. Circumstances change continually. The pressure is on for the answer to that question. That's why I

give the government a chance to answer the question. [interjections]

MR. SPEAKER: Without wishing to engage in a debate with the hon. leader, the first of his two points would imply a daily review of the situation by a minister. In fairness, I don't think that can be assumed. With regard to the second point, that would imply a change in circumstances with regard to something that has happened in the past. It would be difficult to conceive of a daily change in circumstances which would justify a daily repetition of that question.

MR. R. SPEAKER: Mr. Speaker, on the point of order. I'd like to bring to your attention a document from the Canadian manual of chartered accountants for Canada that I tabled after my questioning the last time. In that document there was a definition of auditors' working papers as well as management documents. That was new information I made available to the the Legislature for the Provincial Treasurer to review, and I have omitted that information. Possibly I could have preambled my question to that effect. Has the minister had a chance to look at that document and reconsider whether the information could be tabled? Mr. Speaker, maybe that would have met your requirement.

MR. SPEAKER: Well, with regard to whether the minister has looked at the document, perhaps that could be asked — not daily I would assume. But as far as indicating a change in circumstances is concerned, it would seem to me that it rather indicates a new discovery of some information by the hon. leader.

MR. R. SPEAKER: Mr. Speaker, on the basis of the document I presented to the Legislature, I would like to direct my question to the Provincial Treasurer, indicating whether he has had the opportunity of reviewing that new information and whether the management letters can be presented here to this Legislature.

MR. HYNDMAN: Mr. Speaker, on a fair, balanced, and objective review of the language in that document, which may or may not be persuasive, it is very clear that the government's position is supported. As The Auditor General Act states, working audit papers cannot and should not be presented to the Assembly or to the committee.

MR. R. SPEAKER: Mr. Speaker, a supplementary question to the minister. In this case, I agree with the definition of the Provincial Treasurer that audit working papers should not be presented in this Legislature. I support that position. But could the Provincial Treasurer table the management letter in his possession which is not an audit working paper? Could that document be presented in this Legislature, and if not why?

MR. HYNDMAN: Mr. Speaker, again, and for about the fifth time, the hon. gentleman's interpretation is completely different from that given by the law of the province and the law of this Assembly.

MR. R. SPEAKER: Mr. Speaker, a supplementary question to the Provincial Treasurer. Could the minister indicate what law he is referring to, because the law about audit working papers does not apply to the question at hand, Mr. Speaker.

MR. SPEAKER: There may well be a difference concerning the interpretation of the law. It would seem to me that the hon. leader's question is directly aimed or intended to get a legal interpretation when he's asking what the law says.

Native Secretariat Employee

MR. NOTLEY: Mr. Speaker, I'd like to direct this question to the hon. Minister responsible for Native Affairs. Is the minister in a position to confirm that Mr. Bernie Makokis, a treaty Indian employed as a liaison person with the Native Secretariat, has been asked to resign? Could the minister inform the House as to the reasons?

DR. McCRIMMON: Mr. Speaker, no, it is not a fact that Mr. Bernie Makokis has been asked to resign. As far as I know, there is no intention of asking him to resign.

MR. NOTLEY: Mr. Speaker, a supplementary question to either the hon. minister or the hon. Premier with respect to the aboriginal rights amendment discussion paper. What review of this discussion paper has been made by the government?

MR. SPEAKER: With great respect to the hon. member, that is really not a supplementary question. If that was the hon. member's main question, my suggestion respectfully would be that he might have come to that in the first place. However, since there's a reasonably short list in the question period, I'm sure there'll be an opportunity to come back to that topic.

Liquor Licences

MR. D. ANDERSON: Mr. Speaker, my question to the hon. Solicitor General is further to a question I asked last week. Since that time, has the minister had an opportunity to review to what extent new liquor licensing categories have been utilized by applicants or prospective applicants?

MR. HARLE: Mr. Speaker, I have some figures. There have been seven new nightclub licences issued, 34 recreation facility licences, nine commercial passenger airplane licences, and five travellers' lounge licences at airports. One commercial passenger bus, one passenger train, three racetracks, six sports stadiums, nine theatres, 10 postsecondary educational institutions, and one residential facility for senior citizens have received licensing.

MR. SPEAKER: Without expressing at the moment the extent to which I marvel at the minister's knowledge, may I respectfully suggest that that kind of question and answer might be handled quite effectively by means of the Order Paper.

MR. D. ANDERSON: Mr. Speaker, I'd like to thank the minister for not making the Order Paper necessary in this regard. If I could ask a supplementary question, could the minister indicate if any significant public concerns have been raised about the significant number of licences granted?

MR. HARLE: Not that I'm aware of, Mr. Speaker.

MR. D. ANDERSON: Mr. Speaker, one final supplementary question. In light of the positive response to

these extensive applications under the new liquor licensing category, is the minister considering recommending to this Assembly any further categories, specifically a community pub licence which might allow community associations and volunteer organizations to establish small neighborhood establishments?

MR. HARLE: No, Mr. Speaker.

Extended Health Care Benefits

MR. MANDEVILLE: Mr. Speaker, my question to the hon. Minister of Hospitals and Medical Care is with regard to widows between the ages of 60 and 64 and their provider, over the age of 65, has passed away. All our departments, except medicare, have taken care of these people between 60 and 64. At the present time, if a spouse loses her provider, within 60 days she is cut off from her extended health benefits and the medicare premiums. Could the minister indicate the reason for not bringing these spouses under this, so they get continued extended health programs and their premiums paid?

MR. RUSSELL: Mr. Speaker, as the hon. member is aware, extensions have been made to some government programs, on a survivor basis, to the kinds of people the member referred to. We have reviewed the matter with respect to the medicare program and, at the present time, don't feel the need is there to do it. There are other ways of providing for the needs of those people. I assume the member is referring to the extended health benefits program, because all other aspects of medicare are paid, no matter what age.

MR. MANDEVILLE: A supplementary question, Mr. Speaker. Could the minister indicate why the time period was extended from 30 to 60 days? They can get their benefits for 60 days now, instead of 30 days.

MR. RUSSELL: Mr. Speaker, I had had a couple of letters from people who found that that 30-day time period was providing a hardship, depending on how it was counted. It was done as a general benefit to ease the transition period for those people.

MR. MANDEVILLE: One final supplementary question, Mr. Speaker. The minister did indicate that there are programs in place to help widows between 60 and 64 who have this hardship. Could the minister indicate what program there would be for a widow between 60 and 64 as far as extended health care and her premiums are concerned? After the 60 days after she loses her senior citizen, she has to go on paying her premiums and she's disqualified for extended health benefits. Could the minister indicate what programs are in place to cover this?

MR. RUSSELL: Mr. Speaker, both those programs have provisions for premiums, directly geared to income. Those are the programs I was referring to. In both instances they'd be eligible for reduced premiums or no premiums at all, depending on income levels.

MR. R. SPEAKER: Mr. Speaker, a supplementary question for clarification. Is the minister saying that after the 60-day period a widow between 60 and 64 has to apply for social assistance in order to get benefits and extended care?

MR. RUSSELL: Mr. Speaker, it would depend on the individual family circumstance. They may or may not apply for social assistance, depending on what other sources of income they have. All they would be required to do, with respect to health care premiums and Blue Cross, is to declare their income. In other words, it's a sort of means test. The premiums are related to the level of income.

MR. BOGLE: Mr. Speaker, I may supplement the answer given by my hon. colleague, as we have drifted into the area of other assistance for senior citizens. I'm sure my hon. colleagues will recall that we passed an Act this spring, The Senior Citizens Benefits Amendments Act, which allows that if the senior citizen passes away and that senior was receiving benefits under the Alberta assured income plan — the maximum benefits in that plan at the present time are \$85 per month per individual — the surviving spouse would continue to receive the same level of support, as if the partner were still alive. In that sense, we have certainly moved in a very significant way to support surviving spouses.

Interest Rates

MR. KNAAK: Mr. Speaker, my question to the Provincial Treasurer deals with the value of the marketable securities in the Alberta Heritage Savings Trust Fund. It's been communicated to me that today the bank rate dropped by 15 percentage points. I had asked an investment analyst to determine what impact this would have on the marketable securities of the Heritage Savings Trust Fund. I've been advised that just today, Mr. Speaker, the value would increase by \$100 million alone. Can the minister confirm this figure, and can the minister advise whether he has . . . [interjections]

MR. SPEAKER: With great respect to the hon. member, the device he is now using is rather transparent.

MR. KNAAK: To change the question, Mr. Speaker, can the minister advise whether he is aware of the relationship between the value of the trust fund and the interest rate and, in particular, the reduction in interest rates?

MR. HYNDMAN: Mr. Speaker, I'm not sure of the tens of millions of dollars of added value to the heritage fund that's accrued by reason of the interest rates dropping, but there's no question that the heritage fund, in terms of its value, is gaining very significantly as interest rates come down. I'd be happy to provide further information to the Assembly and the member in future weeks.

Constitution — Aboriginal Rights

MR. NOTLEY: Mr. Speaker, I'd like to address this question to the hon. Premier. It flows from a proposal by the Native Council of Canada, as well as the ITC, with respect to Section 34 of the Charter of Rights concerning aboriginal rights. The aspect of it that applies to federal jurisdiction would be proclaimed immediately, but there would be a three-year moratorium with respect to application of that provision to provincial jurisdiction.

Mr. Speaker, my question with respect to Section 34 is: is the government of Alberta prepared to consider the proposal that is now being presented, or I believe was presented a few moments ago, to the Prime Minister of Canada?

MR. LOUGHEED: Mr. Speaker, obviously we would have no objection to a decision taken by the federal government with regard to provisions that are exclusively within federal jurisdiction, but we would not be prepared to include provisions that are indeterminate and undefined, as far as we're concerned, in a new constitution of Canada, as I mentioned both in the question period on November 10 and during the course of debate.

MR. NOTLEY: Mr. Speaker, a supplementary question. Is the Premier in a position to advise the Assembly what impact the position paper "Aboriginal Rights Amendment Discussion Paper" had particularly with respect to concerns expressed in this paper dealing with Section 34 that in fact there might be some impact on provincial rights, as well as another section dealing with, and I quote: "However explicit constitutional recognition of their rights may provide a psychological boost to Metis groups and encourage them to litigate their land claims". What assessment of this paper was made either by the hon. Premier or by the minister in charge of the Native Secretariat?

MR. LOUGHEED: Mr. Speaker, the hon. member will have to help me with what he's waving and identify the document, because I have a fairly full file. From his description, it's not a document with which I'm familiar.

MR. NOTLEY: Mr. Speaker, I'd certainly be glad to do that. It's the Aboriginal Rights Amendment Discussion Paper prepared by the Native Secretariat.

MR. LOUGHEED: Mr. Speaker, that's still an inadequate description of the document, at least in terms of anything that I perused. Could he give me the date, who is alleged to have received it, who it's to, and who received copies of it, because it's not a document I'm familiar with.

MR. NOTLEY: Mr. Speaker, I believe the information was given to the Indian Association of Alberta. However, getting back to the details within it, I ask the Premier . . . [interjections] I think I've given you the information that is relevant to it. Whatever additional information, we can go into it later on.

MR. SPEAKER: With great respect to the hon. member, possibly the document might be produced and then questions could fairly be based on it in a future question period.

MR. NOTLEY: Mr. Speaker, I was just going to say I'd be quite prepared to table the document, but the point I want to raise is a matter of policy. One doesn't need the document to raise it. It is the question . . . [interjections]

MR. SPEAKER: Of course, this is a significant change in the hon. member's position, since he was using the document as part of his question in the first place.

MR. NOTLEY: Mr. Speaker, on a point of order, I thought the Premier would have had this document. If he claims he has not had an opportunity to [review] it, that's fine. I'll table the document.

However, the question I want to put to the Premier is with respect to one of the major concerns — it's a public concern in any event — and that is whether or not the government's position on Section 34 is related to the

possibility that were Section 34 incorporated into the Charter of Rights it would prejudice the government's position in this province vis-a-vis Metis claims, both in terms of financial remuneration for royalties which the federation of settlements believe are due them and whether or not that is any factor at all in the government's position on the exclusion of Section 34 from the Charter of Rights.

MR. LOUGHEED: Mr. Speaker, on the point of order first, I'm quite prepared to answer the direct policy question the hon. member directed to me. I do really think it's somewhat both inappropriate and unfair for the member to wave a document at me and then, when I'm asking him to describe it, to change the question around. I welcome the tabling of the document. I will then ascertain whether or not I've had any opportunity to peruse it. I doubt it.

Leaving that aside, perhaps I'd answer the question. I thought I answered it as clearly as I could with regard to questions raised by the Leader of the Opposition on November 10. Perhaps the hon. member wasn't here. The reason for the position of the government of Alberta last week in not agreeing to the inclusion of Section 34 had nothing to do with anything involving psychological advantages or disadvantages, or with the question of what claims might or might not be put forward. It entirely had to do with the fact that a section in the proposed constitution referred to rights and, as we were not party to the inclusion of that section, we could not define what it was we were being asked to agree to.

There was a section in the former Canada Act which suggested that there be a constitutional conference. I think the only fair way for any provincial government is to have an opportunity to understand what it's being asked to agree to, and to have the native groups, or aboriginal groups as they're defined, identify with some degree of clarity what rights are being claimed. I want to make it clear, abundantly clear again, that sections 25 and 26 of the constitution preserve existing rights. What the hon. member says both inside and outside the House is up to him, but I don't think it's fair to the native people of this province to communicate to them that their existing rights are being taken away from them. They are not. The question, and it's a fair question, of whether or not there should be a provision within the constitution, such as Section 34, in my judgment is something that's going to require identification by the native groups both to the provinces and to the federal government within the short period of a year. By that answer I don't imply one way or another whether we would find at the conclusion of the year that we would be satisfied that such a section should or should not be included.

MR. NOTLEY: Mr. Speaker, a supplementary question to the hon. Premier. On page 1579 of *Hansard*, the Premier is quoted on Tuesday as saying: "Section 34 purports to add additional aboriginal and treaty rights, undefined and undetermined." So there is no misunderstanding, I will read Section 34:

(1) The aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed

(2) In this Act, "aboriginal peoples of Canada" includes the Indian, Inuit and Metis peoples of Canada.

My question very directly to the Premier is: in what way does Section 34 "add additional aboriginal and treaty rights"?

MR. LOUGHEED: Mr. Speaker, very clearly, if Section 25 protects existing rights, if Section 26 does not deny any rights that may be existing, the only purpose for having Section 34 would be to add rights.

MR. NOTLEY: Mr. Speaker, Section 34 does not say that. In fact, it says "The aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed".

Mr. Speaker, my question to the hon. Premier deals with Section 25. The Premier is quoted again as saying:

Section 25 therefore maintains all existing rights of the aboriginal people of Canada, who are defined in the Act as including the Indian, Inuit, and Metis people of Canada.

My question to the Premier, Mr. Speaker: in fact is it not Section 34 which defines "the aboriginal people of Canada" as including Indian, Inuit, and Metis?

MR. SPEAKER: With great respect to the hon. member, I question the competence of the question period to deal with matters of disputed interpretation of documents which are public knowledge. The hon. member may have his own interpretation; he may not agree with somebody else's interpretation. But I just can't see how we are following the purpose for which the question period was established, which is, namely, to elicit information uniquely in the possession of government. Here we are dealing with a very public document, which has had widespread attention, and we're simply arguing interpretations.

MR. NOTLEY: Mr. Speaker, on a point of order. Might I suggest that the issue is sufficiently important that the question is to ask for clarification. Now on Tuesday, sir, you allowed a question to be put and an answer to be made in the House which gave an interpretation. I want clarification of that interpretation. It seems to me that that is totally within the purview of the question period. Otherwise, sir, you should in fact have ruled the Premier out of order on November 10.

MR. SPEAKER: Or have ruled the question out of order.

MR. NOTLEY: That's right. I didn't ask the question.

MR. SPEAKER: We've gone around and around once a year concerning the degree of latitude in the question period. It has been stated and implied very plainly that there is insufficient latitude. Now, if on occasion there is additional latitude, and that is going to be used as a weapon against the Chair on a future occasion, that is a considerable discouragement to further latitude. I say again, notwithstanding any past irregularities, that the question period is not intended to deal with the interpretation of documents. I agree with the hon. member that the matter is of very considerable importance. I'm sure all hon. members of whatsoever persuasion in the House will agree with that as well. But there are ways of dealing with it outside the question period, ways which may be much more suited to the topic than this irregular use of the question period.

MR. R. SPEAKER: Mr. Speaker, on the point of order. There was an indication about the quality of the question I asked on November 10. I want to point out to you, Mr. Speaker, that my question was not in the form of an

interpretation. I asked whether the government supports — my one word — reinstatement of the matter, whether there was consensus. It wasn't a question of interpretation. Mr. Speaker, with due respect, I think my question was in order.

MR. SPEAKER: Well, I must concede. I have no clear recollection of the text of the question. I had assumed that a question which elicited an interpretation was a question that was directed to get an interpretation. I certainly imply no fault on the part of the hon. Leader of the Opposition with regard to that question.

But we are now aware that we are clearly in the area of discussing and debating interpretations of documents. Therefore, I must continue to say that that kind of exercise is out of order in the question period, and even beyond the reach of considerable latitude.

MR. NOTLEY: Mr. Speaker, I wonder if I could put a supplementary question to the Premier. It flows from the first response the Premier gave with respect to Section 34 and the question related to provincial jurisdiction. The proposal is a three-year moratorium. In view of the question of interpretation of Section 34 and the publicly announced hopes of all included in this discussion that over a period of months a conference would be successful, what obstacle does the Premier see in the proposal of the NCC and the ITC that there be a three-year moratorium? Is it not the view of the government that the interpretation of Section 34 and the definition of the rights thereunder could in fact be achieved within three years?

MR. LOUGHEED: Mr. Speaker, there are two weaknesses to that position, obviously. The first one is that over the course of discussion and consideration it may be simply impossible to appropriately define what is intended by the rights provision stated in the earlier Canada Act, and there's the other one that the provinces upon reflection are not prepared to consider that rights may be added within provincial jurisdiction. Whenever rights are added, rights are often taken away. An assessment has to be made by the government as to whether something is being added and given to one group of people within the province or taken away from the others. And what are the equities involved? We're not prejudging the situation. We're merely saying, let's have discussions over the course of the next year; let's see what is proposed. Also, let's reach a conclusion that some of the aspirations that may be held by the Metis people of this province might be realized in a different way.

ORDERS OF THE DAY

head: WRITTEN QUESTIONS

MR. HORSMAN: Mr. Speaker, I move that Question 141, in the absence of the questioner, and Question 144 stand and retain their place on the Order Paper.

[Motion carried]

143. Mr. R. Speaker asked the government the following question:

Is it the intention of the provincial government to place the new orange and blue heritage fund logo on school

resource material, university library books, student loan awards and applications, and other materials paid for by the Alberta Heritage Savings Trust Fund?

MR. HYNDMAN: Mr. Speaker, I am prepared to accept the question with an amendment. The amendment is twofold: first, to delete "orange and blue", because that's not the color, and it does appear in black, white, grey, and other ways as well; secondly, to change "loan" to "scholarship". That's because student loans are paid for from the General Revenue Fund. It's the heritage scholarship moneys which come from the heritage fund.

MR. SPEAKER: I'm not aware of amending a question in the same way as you amend a motion, but I suppose if the House agrees, that can be done, especially if it can be done without too much resistance from the person putting the question.

MR. R. SPEAKER: Mr. Speaker, there are always days when you should compromise and concede, and I guess this would be one of them. [interjections] Well, that's the Canadian spirit. I felt so good when I left on Tuesday that I didn't want to move away from that. Certainly, I'll accept that. I know the orange and blue that is used on the colored ones has no relationship to any political party. I think that would be acceptable.

MR. HYNDMAN: Mr. Speaker, then I can give the answer orally, for the record. Yes, in future months the logo will be seen on and/or in connection with many other heritage fund projects, including appropriate educational resource materials.

head: MOTIONS FOR RETURNS

146. Mr. R. Speaker moved that an order of the Assembly do issue for a return showing:

- (1) both the original estimated total cost and the current estimated total cost to completion of every capital project presently receiving funding from the capital projects division of the Alberta Heritage Savings Trust Fund;
- (2) the annual operating cost to date of every capital project funded by the capital projects division of the Alberta Heritage Savings Trust Fund;
- (3) the estimated annual operating costs for 1981-82, 1982-83, and 1983-84 of every capital project funded by the capital projects division of the Alberta Heritage Savings Trust Fund.

MR. HYNDMAN: Mr. Speaker, this motion is acceptable with one small amendment, with respect to paragraph two. We note that the information in paragraph three is requested and will be provided from the date of April 1, 1981. In order to assist in and facilitate the answer in paragraph two, I move to amend that by deleting "date" and replacing it with "March 31, 1981". That will simply have the effect of providing information up to the beginning of this fiscal year. The subsequent paragraph three will provide it thereafter.

[Motion as amended carried]

head: MOTIONS OTHER THAN GOVERNMENT MOTIONS

215. Moved by Dr. C. Anderson:

Be it resolved that the Legislative Assembly urge the government to encourage the availability of adequate training programs and to initiate incentives to encourage health care professionals to establish in rural Alberta in order to better serve the health needs of the smaller population centres.

DR. C. ANDERSON: Mr. Speaker, it's indeed with a great deal of pleasure that I present Motion 215 to the Assembly today. Motion 215 is a follow-up to the motion presented last year by the Member for Grande Prairie. I feel it's still a major concern to us in rural Alberta. Needless to say, it's a concern that's dear to my heart. I have practised in rural Alberta and feel I know a few things about the problems there.

What is the importance of this motion to my constituency? I feel there is a general lack of health care professionals throughout the whole constituency. This lack of professionals involves doctors, nurses, dentists, physiotherapists, speech therapists, optometrists, dietitians, radiologists, and laboratory technicians. I'm sure most of us in rural Alberta can say we have similar problems. I know the Member for Grande Prairie would agree with me.

In my constituency alone, we have a real need for doctors. At the present time we have doctor requirements for our three hospitals in Vilna, Elk Point, and St. Paul. The hospital situation is such that Vilna has approximately 44 per cent of the senior citizen population. There is a lodge there and, at the present time, a very poorly constructed hospital. Our government has taken the initiative to create a 15-bed core hospital, which will be in operation within the next year to provide necessary health care facilities for those senior citizens. However, there is only one doctor there. That doctor is presently at retirement age, and at the age when he would like to have assistance. Somehow we need to encourage new practitioners to locate in these smaller areas.

In St. Paul, we have approximately five doctors: two are at retirement age, and one is the only surgeon. So in the immediate future, we are faced with the prospect of having no surgeon to carry out any surgery in our area. We are 120 miles from Edmonton. Therefore, to expect our constituents to travel to Edmonton for their surgery, to be away and displaced from their families, is not in the best interests of providing care. Elk Point has an active-treatment hospital and now has two doctors. Of those two, one is near retirement age. In the past two years, surgery has fallen off to almost nil. And we're now at the point where very little obstetrics take place.

The nurse situation has been critical in all three areas as well. I believe St. Paul is the only hospital in the constituency that has had the loss of beds or closure of the entire pediatric wing because of the lack of nursing staff.

We're in real need of more dentists. We have no dentists at all in Vilna. We have five in St. Paul — maybe most people would say that's excessive — and one in Elk Point. But there is need for more. Physiotherapists are really difficult to find. We need them in all three hospitals. Speech therapy is another area we have incorporated into our health units. At the present time, we have one speech therapist for the entire northeast region. I understand that therapist will be retiring at Christmas and,

therefore, we'll have no speech therapist for that area. That will necessitate parents taking their children all the way to the Glenrose hospital to get speech therapy — really a step backwards from what we've had.

We have one optometrist in our area, who is also at the stage of retirement and is now semi-retired. As soon as he closes his door, it will mean all our people with just simple refraction will need to go to Edmonton for their refraction to be carried out. And we have need for radiologists and dieticians.

Mr. Speaker, as a member of the health and social services committee of caucus, we've met with numerous health care professionals who provide care throughout the province. Several have stated that they are in need of practitioners in the rural areas. We recently met with the optometrists' association of Alberta. They stated that over 50 per cent of their rural practitioners were nearing retirement age and, therefore, were looking at a need to replace them.

What has the lack of health care professionals meant to our people? I believe the lack of professionals has led to a lack of opportunity for our constituents to acquire the best health care within close proximity to their residence. In the past, we've had numerous participants working on the problem of lack of health care professionals. We've had the Northern Alberta Development Council, the Alberta Medical Association, the College of Physicians and Surgeons, the College of Family Practice, the Alberta association of optometrists, and many others looking at the problem.

Mr. Speaker, this resolution is asking the government to establish training programs to encourage health care professionals to locate in the more isolated and smaller population centres of rural Alberta. Alberta is not alone in this problem of attracting and retaining health care professionals for rural Alberta. We're competing with other centres for health care professionals: other provinces in Canada and most states in the United States. This is also complicated by the fact that there's a general lack of health care professionals in the urban centres throughout the province as well, and we're competing with them.

The problem is further complicated by the economic stability and rapid growth of our province. At the present time, we're experiencing a growth rate of approximately 4,000 people per month. This is adding a requirement of approximately 48 new practitioners per year, which makes up a full 25 per cent of the graduates of our two medical training centres, in Calgary and Edmonton. At the present time, we have half as many doctors in rural Alberta and the isolated centres as we have in our cities, yet we have about an equal population. Mr. Speaker, I would say that the problem has compounded since 1971 when this government establishment this decentralization policy and the stable economic growth ideal we have.

I have been talking mainly about the doctor situation, but all the areas pertain to all the fields of health care. I'm sure that the other members speaking after me this afternoon will include them in their talks, so I would like to concentrate more or less on what's happening in the medical field. What has caused the problem of lack of physicians in our isolated and rural areas? The Alberta Medical Association presented a paper entitled Physicians in Isolated Areas. They outlined the deterrents for health care professionals entering rural areas, and listed them as follows: one, high cost in establishing a practice, the high cost in living, lower income due to the lower volume of patients, and the higher expenses; two, the lack

of professional support and lack of peer group — in other words, really professional isolationism; three, the problem with inadequate facilities.

At present, we're working on a major hospital expansion program throughout the province, and this will do a lot to alleviate the problem of lack of facilities. However, we still lack modern equipment in those facilities. This mainly comes in the diagnostic areas. At present, in a lot of our centres in rural Alberta, doctors have to practise on a different level from their counterparts in the city. We often have patients come in with severe dehydration, diarrhea, and other things requiring instant treatment, yet we have to take medical diagnostic tests that have to be sent to Edmonton and, therefore, are flying by the seat of our pants in the initial treatment. Often when the lab work comes back, it's either too late or has already been accomplished.

This is complicated mainly by the fact that since we've gone to the total program of the hospitals and the lack of local autonomy for purchasing equipment, we have to go through a complicated procedure of applying for necessary instruments. That's also complicated by the fact that the College of Physicians and Surgeons has a committee that evaluates these requests. The specialists in the city are usually on those committees, and it doesn't always meet their purposes if we put more of this equipment into our rural areas. So the fact that we don't have an equal distribution of types of physicians on those committees is also delaying approval for purchase of equipment.

This past summer, when I went back to practise as a locum for the group in St. Paul, I had a patient come in with a severe case of diabetes. The diabetes had been treated with insulin. The insulin had been given in the morning, but the patient hadn't taken the necessary requirement of food. The patient came in unconscious, without a history that I could get from him or his relatives. Normally, if you're in the city you can take blood at that time, have an answer within a matter of a minute or two, and know what the blood tests are. I had to act spontaneously and treat with sugar, in what I felt was an emergency situation. Luckily, the treatment was right, but it wasn't until two hours later that I got my blood tests back and found that we had overtreated. So I would say that the lack of facilities is being looked after, but we still have equipment deficiencies.

There are also problems that have caused the lack of physicians. That's basically a lack of social factors: recreational facilities in a lot of these centres, educational opportunities for the professionals' children, and adequate training opportunities, both in postgraduate training and upgrading. There's often a difficulty of attending courses. Even if you have a group of five doctors, the courses are usually so arranged that often more than one of that group have similar interests and would like to attend the same course. Often you have to delay for two or three years before you have an opportunity to get the upgrading. Difficulty in obtaining upgrading of skills is also found by the lack of support in our city hospitals where surgeons do not want to help out in the upgrading of our rural practitioners.

The sixth thing in discouraging practitioners is the poorly developed family practice residency programs. At present there are, more or less, two different types of physicians, what I would call urban and rural, and their skills are different. At present, the family practitioners residency programs are presenting a course in psychiatry, internal medicine, and pediatrics, but don't do much to help out in the area of emergency care required if you go

into rural Alberta.

What studies have been done in the past? Mr. Speaker, a northern Alberta health needs conference was held in St. Paul in 1979. That was sponsored by the Northern Alberta Development Council. That study found that health needs in northern Alberta were based on the general drainage of the population, health personnel, and resources towards the secondary centres. It was found that there was a health manpower to population ratio too low for all areas. It was found that the elderly were being underserved, and there was a need for integrated primary care in many of the mid-sized communities. It also pointed out that an inadequate infrastructure was provided to the people in these areas. It pointed out that children and women were two of the important target groups who needed to have support services and that Indians and Metis have special needs. Dental services was one area where it was definitely pointed out that inadequate facilities were present.

Mr. Speaker, another study was carried out by Dr. Backus, who was the Member for Grande Prairie before our present member. His report, generally known as the Backus report but officially known as The Rural Health Care Facilities Policy Development, outlined the objective to develop a new policy to provide health care facilities in rural Alberta to provide first-level primary care. That policy for facilities is being implemented.

The report had five recommendations. The first recommendation dealt with the underserved areas and stated that these areas should be treated individually in an effort to try to bring them adequate service. This was to involve better communication, establishing health clinics, and providing incentives to doctors to locate in the area. In its first recommendation, it also pointed out that education and training of general practitioners needed to be improved so that the concerns of the family practitioners delivering service there were met. These family physicians they were in contact with pointed out that training today did not train new graduates for practising in remote or isolated areas.

The second recommendation stated that government should provide additional funds to small rural hospitals approved by the college as having suitable educational potential, so that the members could receive training that would make them aware of the rural situation. The third recommendation was for a course for nurse practitioners and a course for remote area office nurses. The fifth recommendation was to provide incentives to doctors to locate in rural Alberta.

Mr. Speaker, other studies have been carried out by our neighbor to the south. I have here a study called Strategies for a Statewide Approach to Improving Geographic Distribution of Health Professionals, carried out by Syiek and Mayes for the South Carolina area. This study was proposed as a co-ordinated, state-level approach designed to achieve equitable access to health care in rural areas. It was pointed out that eight basic manpower strategies had been devised to influence the distribution of physicians in rural areas at the federal, state, and community levels. One was to provide more equitable opportunities for residency training in the state as a whole and in rural areas; two was to increase scholarship and loan forgiveness programs with corresponding increases in dollar amounts and penalties involved; three was to establish a reimbursement system for rural practice that at least equals the urban practice; four was to give preferential admissions to residents of rural areas. It was found that if you train physicians in a rural

setting, they're more likely to return to that setting. The fifth was to alter the undergraduate medical education process to include rural preceptorships, and to provide greater emphasis on human and behavioral factors in the prevention of illness. The sixth was to establish or expand health educational centres and primary care residences associated with them.

Another study, carried out by Cooper, Heald and Samuels, is called The Decision for Rural Practice. Its first statement is that "The country doctor of the past is vanishing." I think we have to realize that, and we have to look at that. It's no longer the case where the doctor hooks up his team, or horse and buggy, makes a tour around the community, does everything, and is willing to put in seven days a week, 24 hours a day. The study pointed out that the location of the physician's medical school, internship, and residency training were influential in his location of practice. It states that this is one reason for encouraging the development of more training facilities in rural areas.

Another study carried out in the U.S. deals with optometrists. It states that the attitude toward urban environment and the place of origin were found to be the best predictor of an optometrist's location. They point out that if practitioners happen to come from a rural setting, and are rural native sons or daughters, they would have a tendency to locate in the rural setting.

Mr. Speaker, I'd like to go on to what has been done. Many programs are set up in Alberta. The Department of Social Services and Community Health has set up a visiting dentist program, mobile training units, and professional training bursary programs. Advanced Education and Manpower has set up with NAIT rural practicums of six months' duration for laboratory and X-ray technicians in rural hospitals. We've been privileged to have some of those students in St. Paul on a regular basis, and they tend to go back into a rural setting.

British Columbia has recently done a study that has shown that a quarter of those interns who have had the opportunity for rural training will return to a rural area. They've gone through many programs, and I understand that they're looking at setting up a new one in February. Saskatchewan has gone through some incentives. They've had tax-free grants as well as establishment grants, but have found that these have been basically unsatisfactory and the uptake of them has been very poor. In fact, only five people have taken advantage of the tax-free grant since its establishment in April 1979.

At the present time, Ontario seems still to have one of the better programs. They have what is called the underserved medical program, under which they've put 310 doctors into 161 communities. There's a 50 per cent attrition rate. But we have to realize that with the modern trend of staying for a short time in a community and then moving to another area, we have to be ready for attrition in the doctor population and, as well, in all health care professionals. However, the program co-ordinator feels that the cost benefit to the province was very worth while. They've also gone into an undergraduate bursary program.

I just got a note that I'm about time and a half over already, so I'll try to wrap up in a hurry. As you can see, it's dear to my heart and I like to go over as much as I can.

MR. SPEAKER: With great respect to the hon. member, the note only predicts. The hon. member still has three minutes to go.

DR. C. ANDERSON: Thank you, Mr. Speaker. I guess you knew what I had in mind.

What else has been done on this problem? In 1978, the Alberta Medical Association provided the government with a discussion paper called *Physicians in Isolated Areas*, on the provisions of health services. In 1981, an article on rural health was provided to Dr. Grisdale. In 1980, following the discussions involving the schedule of benefits, the department presented a discussion paper back to the AMA board of directors. In turn, this discussion paper was turned over to Dr. Lewis by the AMA board, and further commented on. After going over and reviewing it, the board stated that it recognized that several factors were involved which affected the locating and retraining of physicians in rural and remote areas, and really went on to indicate its preference for the system being used at that time in B.C. This is a system of a premium being paid on medicare benefits to physicians in remote areas, but was really based on a relatively complex formula.

Mr. Speaker, what are the solutions to the problem we have before us? As the motion states, we need training programs first of all. We need to provide proper training programs that will deal with the situation in rural Alberta. At the present time, the provincial College of Family Practitioners has its training programs located in Edmonton and Calgary. In Calgary, they send their graduates out for some opportunity to practise in rural Alberta. In Edmonton, it's not quite the same. Basically, the program gives psychiatry, internal medicine, and pediatrics. This isn't enough for our present situation. So, first of all, we have to establish proper training facilities.

I think we made the proper step recently in regard to our nursing situation by establishing colleges in Grande Prairie and Lethbridge. I would like to suggest that we should look at the same type of thing for our doctors, and get them out of the city and let them see what rural Alberta is about.

I'd also like to suggest, and I could be accused of conflict of interest, that we need to have substantially larger fees paid in the medical field. We need to establish grants and minimum income guarantees. Maybe we can look at the Ontario underserviced area program. We need to establish physician relief back-up services for those communities with only one doctor, so he would have an opportunity to get out, upgrade, and have a chance to relax. We need to establish consultant services so these people may have an opportunity to meet with their peers and to upgrade. We need to increase the opportunities for specialty training. We need to look at selecting students who might return to rural areas. Maybe we have to have preferential treatment for some of our possible health professionals. And I would like to say that we need to have an aggressive recruiting program.

Mr. Speaker, the last thing I would like to do is have government more involved in the health care field. I think there are ways of encouraging and providing incentives to encourage the private sector to do a lot of these things for us. At the present time, I think we lack private entrepreneurs in the health care field who will go out and actively recruit and match prospective applicants with the proper setting in rural Alberta. A matching process could be of benefit. The government needs to encourage someone in the medical field to do it.

The other thing we need to do is take an active part in the Alberta chapter of the College of Family Physicians. On November 23, 24, and 25, they are having a conference on rural health care. I suggest that we go, take part,

look at their recommendations and try to implement them. Thank you, Mr. Speaker.

MRS. FYFE: As the member did perhaps go a little beyond his 30 minutes. I'll try to balance that out and go a little under 30 minutes. First, I would like to compliment the Member for St. Paul for bringing forward this motion; as he said, a follow-up to a motion discussed last year in the House, and one that I think is very worthy of debate and support of the members of this Assembly. I heard the hon. member say that rural doctors who work 24 hours a day and travel anywhere are a thing of the past. I would say that city doctors of that type are also a thing of the past. I guess there are a number of reasons for it. Modern modes of transportation have made it far easier for patients to get to a place of treatment rather than having the physician travel, spending many hours which could be better spent seeing the various patients within his practice.

[Mr. Purdy in the Chair]

The motion itself deals with two specific areas. First, it deals with the area of adequate training programs, and secondly, incentives to encourage health care professionals to establish in rural Alberta. In reading through the debate last year, I believe that motion primarily centred on the lack of health professionals in northern Alberta. This motion broadens it to include rural Alberta, which would extend to all four corners of this vast province.

I would like to break my comments into two areas. First, dealing with a few comments related to training aspects, I think it's difficult perhaps to make any more meaningful comments than the member has already made. He has covered a vast variety of issues related to this broad topic. He has mentioned a number of initiatives that have taken place within this province in the training area, and there are some very significant happenings that we've accomplished. I like the idea of medical schools, training schools, or facilities outside the two large urban jurisdictions. I compliment the Minister of Advanced Education and Manpower for his announcement last week of a new diploma training program in nursing in Grande Prairie. I think this is exactly the type of initiative we need and must continue to have.

You can visualize a younger person choosing the health field, and I think it's a very exciting field for young people. Exciting opportunities and a wide array of professions and choices can be made within this field. Medical schools within the northern environment geared to issues, concerns, and training with northern residents, I think are very significant. On the other hand, we have to look at schools that will deal with other types of rural residents where often the concerns are different from those of the northern resident. In the north, we often have to deal with problems such as transportation and poor communication systems. There are different factors in other parts of the province. While there are similarities, we certainly cannot overlook one for the other.

I like the idea of bursary programs. An example is the psychiatric nursing training program at Alberta Hospital Edmonton within the St. Albert constituency. When there is difficulty attracting people to a particular field, I think having an incentive for people who become involved and committed to that particular field is a way to interest them. While money isn't always important, isn't the only factor in career choice or continuing a career, it certainly

has to play a rather significant role. If there can be assistance to students acquiring their education without large loans or large commitments on the part of the family, I think that has to be an important factor that young people will consider.

I'd now like to look at some of the initiatives and some areas we have been involved in, and probably follow that through with a few areas I think are important to consider. One of the things I would like to see us as a government consider is dividing our province into respective health zones. I know this type of approach has been discussed over the years, related to integrated services for medical care, but I'd like to do it on the basis of establishing zones, trying to look at ways we can apply medical services in the best way possible to all people within that zone. I know it's not possible to have exactly the same type of treatment in all sectors of the province. We're not all a few blocks from the new Walter C. MacKenzie Health Sciences Centre. We're not all right across the street from the health unit, for example. But I believe we need to look at zones where we can treat the people within that area in a smaller unit.

I would like to see us try a pilot project in a number of different areas. Let's look at the types of incentives we could apply. Let's take the St. Paul area, represented by the member who brought this motion forward, and the whole area surrounding that community — a number of constituencies could be included within that zone — and let's look at incentives. Let's apply that against some factors for another region, such as the Peace River region, where we look at whether the initiatives we tried over a period of time are effective, whether bursaries within that system have worked, whether we can look at systems of assisting in certain types of housing. We do this in Northland School Division. We provide housing units for new teachers going in. There are often subsidies related to utility costs for those houses. Would we be effective in attracting various health care personnel if we established these types of incentives? As I said, I would like to see us try different types of projects so that we have some criteria for evaluation.

The fees we have paid to our respective practitioners and to various health workers have, for the most part, been standardized. As I said before, money is one factor in attracting people to a certain field. But if they are within the field, we certainly have to take into consideration that there may be higher costs in locating in certain parts of the province. If you happen to be locating in a sector of the Peace River country, or further north in some of the isolated communities within our province, or even within some of the southern rural communities, there are certain considerations that a family has to take to mind when they're making the choice to move to those locations.

If you have a family and your children are reaching the ages of postsecondary schools, there's the consideration of the family having to pay added costs to assist their children to seek higher education. There is a higher cost to receive exactly the area we're talking about: specialized medical care. There are many factors. I think that is a very legitimate area where we could consider ways of grading our salary scales to provide an incentive to go into rural areas. I realize this becomes more difficult when we're talking about the southern rural part of our province, but certainly one that can be considered in the northern jurisdictions within Alberta.

I have covered the bursary program in my previous comments. I think it would be most appropriate to co-

ordinate the bursary program with the training program and apply these within our incentives, within our zones, to find out whether one aspect of our incentives works compared to others.

We have already made initiatives in some of the areas within the total health care spectrum that relate to the very basis of prevention. I think this government has indicated a very strong support for preventive programs. The budgets within the health units have expanded dramatically over the last number of years. A whole variety of preventive programs has mushroomed, but still the need is there and the need continues to grow. Hopefully, if we could convince our population to curtail the intake of drugs and alcohol, and provide our society with an incentive for exercise — all these areas that are covered in prevention. Surely at the other end of the scale, we would have less expensive costs related to treatment programs. But until we get to that point, I think we have to continue working in the preventive areas. We need incentives throughout our province. We need health care workers who are aware of the available treatment programs, ways to motivate our society, ways to get our population concerned about the total cost to family and society as a whole.

Active treatment facilities throughout the province have obviously had tremendous support over the last two years. The Minister of Hospitals and Medical Care has announced a series of projects across this province that, as has been said many times in this Legislature, are second to none anywhere in the western world or the world, period. Nevertheless, along with the development of these facilities, the other side of the coin is ensuring that we have adequate health care personnel to man the facilities that are so needed and will provide such a tremendous facility in a lot of small communities.

I've heard criticism from persons within the health care field: why waste money building these small hospitals throughout Alberta, that's not important; what we need are the new large buildings within the larger urban areas. But I dare say if you're the person living in the community of Vilna or whatever small community that has had the benefit of the announcement of a new facility, that treatment centre is extremely important. It's also extremely important to the attraction of health care personnel throughout the province. Ten years down the road, when these facilities are on stream and we have been successful in our incentives to attract health care personnel throughout this province, I think we will see just how important an integral part those smaller hospitals and treatment areas have played in our total health delivery system in Alberta.

I think we have to look at a broader integration of active treatment with auxiliary, geriatric, home care; for example, treatment of the terminally ill. The home care program is undergoing an extensive review at present to determine whether medical entry is the only way we should go in the future, whether we should consider social entry or whether there are other aspects of home care that should be expanded. In the meantime, home care is providing a very important role throughout Alberta. Home care is a significant support service system to families suffering with having a member of their family terminally ill.

Last year, I was able to attend a conference in Montreal related to care of the terminally ill. One of the papers presented described a program in the state of Minnesota in the United States about care for terminally ill children. This program provided support services through trained

nursing personnel, through a central agency, over a 200-mile space. I think this program, and ones such as that, have a lot of application for a province such as Alberta that has a relatively small population over a large geographic area. By looking at zones and an integration of the services we have, and by developing a better ambulance service, more specialized communication that will tie our volunteers in with all the services we have in place, I think we can learn a lot from other jurisdictions. We've come a long way within Alberta, and I think we still have a fair way to go in order that we reach the level where we have provided an adequate level in terms of just basic care to all citizens.

Mr. Speaker, I'm going to conclude my remarks by once again thanking the member for bringing forward this motion, that is a very complicated area. The remarks I have made probably just scratch the surface in a few ways. As a lay person interested in health care, I appreciate being able to make even a few comments related to this extremely important subject. I think we as a province have a challenge. All of us have to be concerned one way or another about levels of service across Alberta. I think there's a challenge for all members of this Legislature. I would like to see a commitment and the support of every member in this Legislature for the motion.

Thank you, Mr. Speaker.

MR. WEISS: Mr. Speaker, it is indeed a pleasure for me as a rural member to participate in this motion today. I would certainly like to congratulate the hon. Member for St. Paul for bringing this to the Assembly and the participation as shown by my colleague to the right, the rural Member for St. Albert. I'm pleased to note that with her remarks so eloquently presented, perhaps it would be best if I were to sit down and just say, copy those as well. But I feel too that without the members agreeing to it, I would like to participate and perhaps be able to contribute as well.

Mr. Speaker, I would like to try to cover three basic areas and what we are doing specifically in the areas of rural health, what the needs are, some recommendations for implementation, and hopefully put forth some issues for debate.

In particular, health care affects all of us, not just in rural Alberta, I might emphasize, but wherever we may live. Mr. Speaker, it involves not just one department but various departments, as has been illustrated. There is Social Services and Community Health, Hospitals and Medical Care, Advanced Education and Manpower and, strange as it may seem, it also involves the Department of Small Business and Tourism. How does it affect them, sir? Through the Northern Alberta Development Council, which plays a large role in the lives of northern and rural Albertans.

Alberta presently is facing a general shortage of health care professionals: nurses, psychiatrists, specialists. The problem is much worse in rural Alberta, although I have emphasized that it is a problem in all parts of Canada and in Alberta. We feel it's a very significant problem in isolated communities, more specifically.

This resolution asks the government to consider taking action to combat the manpower shortage through incentives and training programs. As has been pointed out, there are very many studies, four in particular that I'm aware of, that have reviewed the health care system. Health Care Needs of Northern Alberta, prepared in 1980 for the Northern Alberta Development Council, was presented in the riding of the Member for St. Paul, the

community of St. Paul. It was well attended, had a good response, and I'd like to come back to it later and point out some of the recommendations submitted during that time. The second is Physicians in Isolated Areas, prepared by the Alberta Medical Association in 1979. The third is Nursing Manpower: a Study of Factors in Nursing Supply and Demand. The fourth is Strategy for Attracting and Retaining Physicians in Northern and Rural Communities. Mr. Speaker, that was done in 1980, a non-public study for the Department of Hospitals and Medical Care.

In northern Alberta in particular, the problems in these studies have been identified as the need for more counselors to aid in the treatment of alcoholism. I'm sure the hon. Member for Lethbridge West would support that, that alcoholism plays a significant part of the problems in rural areas. Secondly, the need for psychiatric staff: mental health services were considered very, very patchy and sparse. Dental services were also considered very sparse and have presented a problem; the lack of speech therapists and audiologists, particularly in native communities; the scarcity of physiotherapists and aids for the handicapped; the lack of general physicians and, more critically, in the specialist field; and the need for more community medicine specialists, especially in light of the need for co-ordination in the delivery of health care in the north and expected growth in many areas. Rapid growth communities, as well as isolated areas, face a serious problem. And, Mr. Speaker, a very, very severe, direct shortage of nurses, not just in the north but in all areas.

The Alberta Medical Association study identified the problems in attracting physicians to rural and isolated areas, such as higher costs — the cost of living, of establishing a practice, and of travel to rural and isolated areas. In addition, the volume of patients is lower, which of course decreases earning potential. If there's to be subsidization, I think it should be considered in those areas. One has a difficult time competing in business today as it is, but having to provide a service to outlying, remote areas where the patient populace is very, very low certainly is very difficult. The professional is in isolation socially and in regard to working conditions, where there is no relief from duties. A doctor or medical person has to go into communities and is expected to work 14, 16, 18 hours, whatever it might entail. Not so in urbanized centres, where they can rely on change of manpower, shifts, shift differentials, back-up physicians, and help throughout the services. In the larger institutions, of course, they have complete rotation of shift persons. That's not so in an isolated area. There's a less attractive social and cultural atmosphere both in the facilities and in some of the amenities offered to the people who would be servicing these health care needs. There is inadequate training in the profession for the type of care and service required outside urban areas. Strange as it seems, there is a lack of prestige and glamor compared to urban practices. I think that's a fear that faces a lot of young people in looking to relocate into urban areas. What is there for them? What is to be offered? Do they have the amenities? Do they have the cultural aspects? I would hope we as government can help attain some of these amenities for people and make it more attractive for them.

The nursing manpower study has pointed out that the number of graduates from training programs in Alberta has declined by 23 per cent in the last five years, particularly due to quotas. Mr. Speaker, there is a need for a greater practical component in training programs, for more specialized training in some areas of care, the

educational training aspect and upgrading, the high work and patient loads placed on nurses creating dissatisfaction. These are just some of the problems that face rural areas in relation to urban centres.

Physician recruitment and retention programs are essential for improving the medical services in medical underserved and isolated areas, and for maintaining availability and quality of medical services in those areas presently served by a sole practitioner. There have to be professional considerations, such as availability of specialists and opportunities for continuing education. It certainly is a deterrent to a physician, or anyone in that field who locates to a rural area, when they're not able to upgrade and continue with that upgrading program. They then feel inadequate and wish to come back to the urban centre where this specialized training is available for them.

The programs for training incentives in Alberta, while they are varied are, I think, somewhat restrictive. Through Social Services and Community Health, they have mobile training units which provide mobile dental care by some students of dentistry to some of the various rural communities. I would say this is certainly very well accepted and very well utilized. But there is a shortfall, and they're not able to service all communities. Of course, it does help introduce a practitioner dentist into the rural area and hopefully will show them some of the other fine aspects of communities and rural life we have. The professional training bursary program through Social Services and Community Health provides bursaries to students of health care, in eight fields in particular. It's not specifically addressed to the rural needs, and I think this is an area we should be considering. The northern development bursary, conducted through Tourism and Small Business, provides bursaries to students from the north. This year, the emphasis was placed on health care, with 13 per cent of the funds going to students of those professions. Conditional upon return to the northern rural areas, the bursary is directly related to this. Unfortunately, Mr. Speaker, the success rate has been only 50 per cent. I believe there could be some improvement in this area. Hospitals and Medical Care, through its implementation committee, has suggested conducting a study of nursing manpower in Alberta. We believe this can be expanded. We certainly all know there is a shortage. Of course, at present we're all aware that there is a review of the salary negotiations as well.

Looking at some of the other provinces, British Columbia has some varied programs. The Deayse Lake program, which is a native community primarily, involved the construction of a clinic in the isolated Deayse Lake community to be staffed by doctors on a rotating basis. This is on a two- to four-week basis. Doctors are paid salaries commensurate with their urban salaries, and there is no limit on the number which may participate. Mr. Speaker, response to this program has been very good. Perhaps this is an area we could explore as well. The extern program for dental students is also working in isolated areas. As well, it provides mobile training units.

Saskatchewan is another province that's faced with rural problems. There's a physician establishment program, as mentioned by the Member for St. Paul, which provides grants to physicians: \$15,000 to a generalist and up to \$25,000 to specialists. This allows them to establish first-time practices in grant-eligible communities as specified by the departments. There's a great deal of community involvement in these areas, Mr. Speaker, in recruitment and provision of facilities. The main problem,

though, is that it still has attracted only five physicians since 1979. But five is a long way and would provide a long way to help in what we do have at the present time in our areas.

The dental establishment program is similar, only the amounts vary approximately from \$10,000 to \$20,000. Although the program has been successful. I understand the province of Saskatchewan is going to be reviewing it, possibly because the communities are now able to attract dentists on their own as a result of the program.

In Ontario in particular, programs are available for physicians, dentists, speech pathologist, and audiologists. They provide bursaries for part of the training. Doctors receive \$5,000 a year for the last two years of medical school. Postgraduate grants and income support incentives are available to them as well. Support services are available, and the success rate there is approximately similar to our areas, at 50 per cent. There are special programs. There is tele-health, which is in a developmental stage at this time. It introduces technology into the co-ordination and provision of health services. There are isolated nursing stations. Many programs are taking place in all these areas. I think it gives us examples that we can look upon, draw upon, and perhaps take the best of all these programs and implement them as required for our needs.

Mr. Speaker, rapid development is taking place in many rural areas, particularly the north. I believe the government has a responsibility to provide adequate health care and to encourage such growth by providing the suitable atmosphere, which involves provision of health care. I believe we owe that not just to rural Albertans but to all Albertans. The problems of manpower shortages in Alberta are accelerated in rural areas by lack of professional development opportunities, lack of support resources and, in some cases, lack of community services. There is a need to provide an attraction to these areas. There is also a lack of funding and facilities for training professionals in rural health care in Alberta. The problem is very complex. The solution requires greater community involvement, improvement in the co-ordination of health care delivery, improvement in the educational and social services facilities in rural areas, as well as additional training and incentive programs to become part of the overall solution.

Mr. Speaker, I'm not saying the government has not recognized some of these concerns. I certainly am very supportive of some of the programs, in particular those mentioned earlier by the Member for St. Albert, in relation to the nursing program that's been implemented in Lethbridge and Grande Prairie. We look forward to this same program to be announced from the minister and implemented in Keyano College in the Fort McMurray region. The government has partially recognized some of these difficulties, as I have mentioned. It has expanded its hospital construction significantly in the last year. In particular, in the constituency I represent we're very pleased with what is happening. It has approved several new training programs, such as I have already mentioned. These programs will certainly take away some of the problems we have spoken about today. As well, it is committed to providing some rural practicum to students. However, the situation remains grave. Therefore, an examination of further action is warranted.

It is for these reasons and these issues that I speak in criticism of our government, because I believe that we don't wish to be complacent. We must recognize these needs and strive to make this province of ours a better

place to live. Incentive programs have not been conclusively proven successful, as is shown by the Saskatchewan experience. But I believe that we too can improve on these. Consideration should be given to providing some form of extension program or lecture series in rural Alberta, with the goal of making the opportunity for professional upgrading available. The lack of this has been cited as one contributing factor to drainage of professionals from rural to urban areas.

Mr. Speaker, I mentioned earlier the involvement of Tourism and Small Business. In particular, one of the departments that comes under that ministry is the Alberta Opportunity Company. I think the parameters of that particular department could be expanded. We talk about small loans to businesses, to beginning farmers through the Department of Agriculture. Perhaps we should be considering business loans to finance the beginning doctors or essential services in communities. Get them in there. Get them involved. Help the communities. Get the practice going. I believe once we've got them, they'll never want to leave. I'm one of those converts, having been an urbanite in the cities of Vancouver and Edmonton. I thought they were great places to live, and I'm sure they still are, with a lot of good benefits. But I don't think there's anything wrong in living out there in rural Alberta. I'm pleased with a lot of the things our government has helped to make worth while: the amenities, the programs, and the education.

Mr. Speaker, the Northern Alberta Development Council is just one of those committees and groups working to help improve it for Alberta. They encourage the support of this Motion 215. Once again, I would like to thank the member for bringing forth the motion. I as a rural member certainly support it. I urge all members of this Assembly to do so as well.

MR. HYLAND: Mr. Speaker, as I rise to participate in debate of Motion 215, I guess I've probably got three to four minutes of speaking time. Is that about right?

Thank you, Mr. Speaker. Various members have covered a lot of the areas I have in my notes. As I'm out of time, I'll skip over some of the areas. First, I would like to congratulate the Member for St. Paul for bringing forward this motion. I note that last year I participated in a motion somewhat the same, dealing with the supplying of health services to rural Alberta.

Mr. Speaker, in Alberta we have probably one of the best set-ups of postsecondary institutions anywhere in Canada. In the discussion of this motion, various members have referred to these institutions and what they could do to provide the health care professionals we need to provide care in rural Alberta. I look at the maps out of a publication called Access to Opportunity 1905-1980, the development of postsecondary education in Alberta. They have various postsecondary institutions dotted on them. In 1921, there were 19 such institutions, everything from Edmonton and south. In 1951, there were 15; it had dropped some. There was one at Fairview, and the rest were Edmonton and south. In 1966, there were 25 such institutions; three were north of Edmonton, the remainder south. In 1980, there were 60. I haven't counted the ones that were Edmonton and north, because on the map it looks like a 50:50 percentage balance of these institutions in the northern and southern parts of the province.

When you see a map with dots where these institutions are, I think it really impresses upon one that we have the facilities to train the people we would need in the rural areas to provide the service. And indeed we do, in various

institutions. But I think we can do more besides the various programs we have in the junior colleges and other institutions throughout Alberta.

Mr. Chairman, when I spoke last year, I noted what happens to a community when it loses its doctor. This can be very devastating. So we need some sort of way of attracting these health professionals to the rural areas. Once many of them come to rural Alberta, they stay. They like it. But it's getting them out of the city to practise in a rural area. The constituency I represent, I believe I have . . .

MR. DEPUTY SPEAKER: Order please. The time for this debate has now concluded.

DR. C. ANDERSON: Mr. Speaker, on a point of order. Seeing as the Member for Clover Bar, whose Bill comes up for the second hour, is not here, I wonder if we could beg the Assembly to have unanimous consent to extend the debate for the second hour.

MR. DEPUTY SPEAKER: Is there unanimous consent of the Assembly that we continue the debate on the motion of the hon. Member for St. Paul?

HON. MEMBERS: Agreed.

MR. HYLAND: Mr. Speaker, I'm not sure where to start now. I left a good deal of it out to try to squeeze it into the four-minute time limit I had.

AN HON. MEMBER: Great speech.

MR. HYLAND: Mr. Speaker, I was dealing with doctors in rural areas, what happens to the community when there is a loss of a doctor, and the number of doctors who practise in the constituency of Cypress. Indeed, two of them practise in Bow Island, and the remainder — three, four, or more — practise in an office in Redcliff. So a good part of the constituency doesn't have resident doctors. There isn't an optometrist, and there aren't many other health professionals in the area. It is unique in that all these specialties are in Medicine Hat, being the larger central area. It's just a distance for people to travel.

Mr. Speaker, we have one problem where you get health professionals — doctors, nurses, lab technicians — coming to rural areas. I guess it's the fault of people such as me. On maybe their first night out after their first shift, these gals go to wherever the local high spot is. Some local, young fellow sees them and thinks, gee, she looks pretty good. So that's what happens to a goodly number of our health professionals in rural areas. Most of these people are out of the health care field for a number of years raising their families. Some return afterwards, and some return on a part-time basis. So it becomes an integral part of a small rural hospital to have people available on a part-time basis. But as I've said, I still think it was a good idea. It provides stability in the community, because these people are here for a long period of time even if they just work on a part-time basis.

Mr. Speaker, we've dealt with a great many possible remedies that could be used to draw health professionals to rural areas. The Member for St. Paul gave his feelings on what the education extras should be like so that we get an all-round general practitioner. Being a layman, I wouldn't be so brave as to suggest what courses they should take. I remember a friend who said that a general practitioner knows a little about a whole lot, and a

specialist knows a whole lot about very little. I think that kind of sums up what the doctor in a rural area has to work with. When he is confronted with a problem, he has to make an immediate decision, in some cases with very little back-up of availability of very modern equipment. A lot is done on knowledge and gut feeling. That is the way it is, because it's a long way from modern hospitals that would have all the new equipment.

In rural Alberta, we have some very fine facilities in our hospitals, and we're building more. We have the best building program of any province in Canada. But to provide the equipment that would be in regional hospitals in each small hospital would be one thing, and then to have people there to run that equipment would be something else. Thus our idea of smaller hospitals with a good medical staff and a good amount of equipment, and the placement of regional hospitals within the shortest possible distance from these other hospitals for the transportation of patients and further service to them.

We have talked this afternoon of many incentives to coax health professionals to rural areas. We've heard about possible additions to their fees of 10 per cent, or whatever the figure may be. We have heard of a guarantee of a certain wage or income. Some of the ideas are establishment of clinics, where a doctor would go into an area and the clinic would be supplied by the government or the community, as we do in social services with the mobile dental units. There could be such things as income tax credits or whatever, as suggested in this Assembly last week on the debate of a motion. Probably there could be many others too numerous to mention. But these are all things we can think about and things we may try, to get health professionals into the rural area.

Mr. Speaker, one area we may try to improve to help the situation would be the ambulance system. We have many different types of ambulance systems available and active in the province at present, all the way from those manned from hospitals with paramedics to those, in the case of two in my constituency, manned by the local fire department, with their St. John Ambulance training, with two relatively new units. Maybe we could tie these kinds of systems together, partly with education and partly with better communication systems between the vehicles.

Mr. Speaker, these are all things I feel could possibly be done, and I'm sure other members have many more suggestions we could think about that could accomplish the end of having more professional health practitioners in the rural part of Alberta. I guess the one important thing is that we have to put enticements there. They have to be coaxed — if that's a good word — to rural Alberta because the practice of medicine and the practice of almost all the health professionals is that of free enterprise. They, like many of us here, want to be free to do their thing. So it is our job to place conditions or enticements out there so that they can make up their own minds if they want to go out to the rural area. I don't think there's any way we can force them, but we can do many things to get them into the rural area. I'm sure that if we get them there, knowing the experience, many of them will stay and become an integral part of the community.

MR. HORSMAN: Mr. Speaker, I'd like to participate for a few moments in this debate this afternoon. At the outset, I must say that I am indeed appreciative of the fact that the hon. Member for St. Paul has introduced this motion to the Assembly. Part of the motion relates to the responsibilities of my department, Advanced Educa-

tion and Manpower, and others relate, more directly perhaps, to other departments of government, with respect to either Hospitals and Medical Care or Social Services and Community Health.

I appreciate very much the participation in the debate by several members today. I must say that after hearing some of the speakers, I began to wonder why anybody would want to live in the areas mentioned by the speakers in view of their lack of social amenities, lack of incentives on the part of professionals to practise within the regions. But I can only assume they were putting the blackest possible picture on the delightful parts of Alberta from which they come and the people they represent in the Assembly, in order to emphasize the importance of having more people in the health professional fields locate in their own areas. I'm sure that chambers of commerce from those areas might wonder at hearing members of the Assembly paint such a bleak picture. I was glad indeed to hear the hon. Member for Lac La Biche-McMurray, at the conclusion of his remarks, qualify his comments to the point that rural Alberta, smaller centres in Alberta, are indeed very pleasant places in which to live. I was gratified to have that qualification added during the course of his remarks.

I'm also grateful to the hon. Member for Cypress for having made reference to a recent publication sponsored in part by my department, entitled *Access to Opportunity 1905-1980*. That was perhaps a 75th Anniversary contribution to an explanation of what is taking place with regard to postsecondary education in Alberta and the type of services available now as opposed to those services that were available as recently as 15 years ago.

In looking at the maps referred to by the hon. Member for Cypress, one only has to glance at them to realize that in the past 15 years there has been a dramatic increase in postsecondary credit programming available to the people of Alberta. In fact, I think it is true to say that access to some kind of credit programming at the postsecondary level is now available, within commuting distance, to 90 per cent of the population of Alberta. Now that doesn't mean of course that every centre which has a postsecondary credit programming availability has a medical school, a dental school, or indeed a school of nursing. But it does mean that there has been a dramatic change in this province with respect to postsecondary opportunities for Albertans. Many of those credit programs have come about in areas touched upon today, and I refer to health professionals or health technicians.

I want to touch on a few points there, in particular, with reference to the very important decision to expand our postsecondary opportunities by way of consortia, or singularly, consortium. These new types of institutions are now operating in several locations in the province. Recently, I had the pleasure of attending in Drumheller to officially open the Big Country consortium, having previously opened the one in Yellowhead region, an area now experiencing a rather dramatic increase in enrolments in credit programming at the postsecondary level. I think these partnerships of institutions are a great step forward, and I expect there will indeed be greater emphasis placed in these areas upon the type of programming at the technician's level in particular with regard to the health services field, and the nursing level in the years ahead. I really want to emphasize to all members of the Assembly today how important it is that we continue this regional expansion of our postsecondary educational opportunities.

I know that several members have made reference to

the establishment of new nursing schools. It is of course well known that a baccalaureate program was approved for the University of Lethbridge shortly after I assumed the ministry, and that program was mounted in record time when one considers how difficult it is to acquire a new program, the instructors, the space, and the relationships with the various other institutions which have to be part of the program. That program is now under way at the University of Lethbridge.

Likewise, I announced earlier that two new nursing schools would be established in northern Alberta, one at Grande Prairie Regional College and one at Keyano College at Fort McMurray. As I announced last week with the assistance of my colleague the hon. Member for Grande Prairie, the program at the Grande Prairie college is being mounted in such a way that it can go on stream a year earlier than originally anticipated. Once again, Mr. Speaker, that is remarkable. I make no apologies whatsoever to anyone in Alberta or in this Assembly in saying that I applied for and obtained a special warrant of \$452,000 in order to obtain the necessary funding for that program. I'm sure no one would argue with the importance of increasing the capability of our postsecondary institutions in Alberta, particularly in the north, to provide nursing educational opportunities for the people of this province. As well, I look forward to the same type of progress from the board of governors at Keyano College as they prepare their nursing education program. So I want to say how pleased I am to see this expansion taking place.

Before I leave the subject of nursing, it is important to realize that in the first budget for the Department of Advanced Education and Manpower I had the opportunity to prepare and place before this Assembly, a new component called the professional faculties enhancement grants was added to the universities sector. The grant is over and above the standard block grant, plus inflationary factors, made available to all institutions, and was made available for the first time to the University of Alberta in the budget of 1979-80. It was in the neighborhood of \$870,000. That was made available to the university board of governors with no strings attached except that it should go towards enhancing enrolment capabilities in professional faculties of the choice of the university in question. I'm very pleased indeed, Mr. Speaker, that the University of Alberta chose to use part of that additional funding to double the enrolment, from 72 to 144 students, in the baccalaureate program in nursing. That is a very significant step forward.

Likewise, with respect to the budget year we are now in, additional professional faculty enhancement grants were made available, this time to all three conventional universities, so that in each case they could enhance the professional faculties that the board of governors and administration felt were important to the development of more spaces and improvement of spaces within each institution. While I don't have all the details at this time, the important thing to note there is that several hundred thousand dollars has gone forward from this government to the universities and has resulted in additional funding for the medically associated professional faculties at those institutions.

As we look forward in the near future to the establishment of the new technical institution to be located at Stony Plain, I want to emphasize the fact that, along with the new interim governing authority which has just recently been appointed, we are planning there for a major expansion of health-related occupations, many of which

will be in the two-year program area and will include quite a variety of health-related occupations. That will give us more capability in this province to provide that type of training which will give young people in this province — and some who are perhaps not so young, and who want to go into a new career — the opportunity to find places within our technical institutions which now provide technicians' courses in the health-related occupations. That will free more spaces and, I hope, will be of great benefit to the people of Alberta. I should point out that the location of the institution at Stony Plain is another step in our decentralization program of postsecondary educational opportunities in this province.

Mr. Speaker, I know that others are waiting to join in this debate, and therefore I will conclude by saying that I feel that all of us should look with a good deal of pride at our past accomplishments with respect to providing opportunities for Albertans to improve their skills in the field of health-related occupations and professions. I am particularly proud of the emergency medical technicians' program, which originated in the Southern Alberta Institute of Technology and has spread throughout scores of smaller municipalities in this province, providing a much higher level of training for medical technicians or people associated with ambulance services and that type of service. That program has succeeded very well indeed.

While I say we should congratulate ourselves for what has happened in the past, let me assure all members of the Assembly that we do not consider the job completed. As a government, we see the opportunity to expand health-related training opportunities throughout the colleges system, throughout the consortium method, as well as encouraging the universities to expand their credit programming throughout the province — and I must say the universities are being very co-operative — without the necessity always of the students attending on campus. Athabasca University is another exciting possibility for the expansion of further programming in this field, and I know we have much to be done. But not only do we have much to be done; we have recognized that much must be, and will be, done. We have the will to do it, and I hope that my colleagues in government, in this Assembly, are prepared to vote the necessary funds associated with this expansion in the years ahead.

Mr. Speaker, I conclude now so that others may join the debate and offer their comments on this very important and very worth-while motion. Thank you.

DR. CARTER: Mr. Speaker, I'm glad the previous speakers have not used all their material so that others might get into the debate.

I know that Motion 215 relates to a very important area, and I commend my bench mate and colleague from St. Paul for the introduction of the motion.

[Mr. Speaker in the Chair]

For a moment or two, I would like to reflect on some earlier times in the Northwest Territories and the province of Alberta with respect to the whole matter of health care needs. I reach back into some of the dim nooks, or the further distances of my mind, into the archival corners, and I recall that most missionaries, no matter whether they were Anglican, Methodist, or Roman Catholic, had to suddenly become jacks of all trades. They came not only to preach the gospel, but found themselves to be agriculturalists and sociologists. One of the more interesting facets of their lives was the whole matter of

supplying health care. Many of them had their own versions of little black bags of minimal medical supplies to carry around with them. I also know that a tremendous number of them engaged in cultural conflict with some of the native peoples because many of our native tribes, if not all of them, had their own medicine men, who really were the doctors with respect to their own band and tribal associations. So it is to some of those early missionaries in the Northwest Territories, what was eventually to become the provinces of Saskatchewan and Alberta, that we owe the foundations of our hospital and medical professional background. In particular, one would have to give all credit due to some of the nursing orders of the Roman Catholic church, the foundation of hospitals which became in time the necessary places of operation and, to use a play on words, the theatre of operations for some of the medical personnel in this province.

For a moment, I would like to give an example of what early doctors have meant in the development of western Canada. I reach back into our own family association and reflect upon my father, who came from England in 1928. As a clergyman, he was deposited in a very lush, lavish arrangement. He had an eight by six lean-to attached to the drafty side of a church in west-central Saskatchewan. One day, he had a very severe pain in his side. He let it go on, being a stubborn Englishman; he could deal with anything. By the next day, he decided the pain was getting to be just a bit too much to bear. Now, the Anglican church, in its wisdom, had placed him miles away from anywhere, and his only method of transportation was his own feet. The pain was so severe, though, that he crawled and hobbled his way about a mile to the next farmhouse and spoke to the people there about his problem. They commiserated with him. They gave him a small shot of something to get this poor clergyman in some kind of condition so they could get him down to the nearest medic. The only trouble was that they had to put him in the back of a buckboard and bounce him along some of Saskatchewan's finer back roads, down the 20 miles or so to the main line of the CPR. The pain in his side wasn't getting any better, because of Saskatchewan's highways in those days. They had to hang around and flag down a freight train. When the freight train eventually came, they loaded my father onto the floor of the caboose and bounced him another 35 miles along the main line right of way of the CPR into Swift Current.

In Swift Current, they got him to the hospital. He was operated on immediately. A day or two later, when he was starting to come out of the fuzzies that all doctors seem to get you into — sometimes that's before the operation, let alone after — the doctor looked at him and said, John, you're lucky to be alive. If you hadn't gotten here when you did, you were probably going to die of a ruptured appendix. But what did they give you? They must have given you something. My father looked at him and he said, well, they took a few drops of some stuff, put it on a sugar cube, and popped it in my mouth. I guess that's what it was. The doctor pressed him and said, well, what was it? My father said, Doctor Bell's wonder horse medicine.

MRS. CRIPPS: That's a horse of a different color.

DR. CARTER: Well, it may have been a horse of a different color. Forty years later, my father went to a testimonial dinner for a certain doctor who had been well known in central Saskatchewan for his dedication,

his willingness to make house calls, and to go about the countryside in all sorts of circumstances. It just happened that the doctor was sitting across the table from my father. Both of them had gotten somewhat more elderly in the course of those 40 years. My father leaned across the table to the doctor and said, I don't suppose you remember me. The doctor leaned across and said, I sure as hell do, and I still say you should have been dead. So some of those doctors noted for making house calls and having sensitivity are also known for having very long memories and being able to keep you in your place. Well, I for one am appreciative of Dr. Bell's wonder horse medicine, because at the time all that occurred I had not yet even been born. So it's kind of nice from my own personal, private point of view, to be here.

One of the difficulties all areas of Canada described as remote have is simply that it is very difficult to attract professionals and trained personnel of all professions into those remote areas. Within my own background with the Anglican Church of Canada, we have great difficulty even today trying to persuade clergy and their families to go into remote areas of the provinces, let alone to go into the Northwest Territories or the Yukon. Obviously, some of the difficulties are that oftentimes in the more remote areas, there is the whole problem of the higher cost of living, unavailability of a great variety of balanced foodstuffs, and of course there's what's known as being culturally deprived in more sophisticated circles, whether that's true or not. Nevertheless, the problem is there for professionals and service areas in all the remoter parts of the provinces.

Motion 215 touches upon the medical profession, but it has ramifications for all professional areas. In terms of incentives in the health care field, the province of Alberta with its rapidly accelerated program of new hospitals should be enough encouragement to lure, entice, and attract more professionals in the medical field to some of the smaller community areas within the province of Alberta. After all, we do want to have, especially if we are patients, not only adequate health care facilities but the best, particularly when our own families go into those facilities. We want to have the best facility and the best medical care available. I for one am quite hopeful that the encouraging spate of new hospitals within the province will be a great incentive to health care professionals to remain or to go to some of the smaller communities where they will be able to have first-class hospital facilities.

In another area of incentives, I think one of the incentives that is being put in place in the province is the whole matter of infrastructures, especially with respect to highway upgrading. This in itself should allow some of our doctors and their families to feel much closer to the larger metropolitan centres. If they wish to come to Edmonton, Calgary, Red Deer, or Lethbridge, they would find easier access to those places, to partake not only of the goods and services of the community, but also to participate in some of the other cultural activities. We have to bear in mind that all our health care professionals have been through university training and probably have obtained a minimum of two degrees. In the course of that educational experience, they have also grown considerably in terms of cultural awareness. So, it's not just a point to be pooh-poohed that many of the doctors' families do have very rich cultural interests in the broader aspects of the community, whether it be choral, symphonic, the painted arts, or the spoken arts. In that regard, the province has been doing a tremendous amount with respect to the

enlargement of the road system within this province, and also with respect to airports.

This greater ability to move throughout the province has to be of great benefit to the patient as well as to the doctor and the doctors' families. Obviously, better roads, a better highway network, and better airport facilities are of great benefit to patients who, after they have received the initial care required in an emergency treatment centre in a local hospital, have to be moved to the larger centres for more sophisticated treatment, which requires the work of specialists. It is obviously of great use to be able to be picked up either by helicopter or by light aircraft and flown into Calgary or Edmonton, or even transported to other centres.

One of the other features which has taken place, and has been commented upon within the House, has been the mobile dental clinic program. As that system is evaluated within the province, it may well be that a variation on it could be used for some of the more remote areas of the province, where we might have some of the medical doctors move about the province in a similar style in terms of a mobile clinic.

Motion 215 mentions adequate training programs. Perhaps what is needed is a variation of an intern program. That might be taken into consideration at the university levels or perhaps even through the medical association itself, whereby for a number of weeks or months some of the doctors who themselves are interning might come out of their program and be placed in some of the smaller communities throughout the province so that they might have that live-in work experience, the experience of functioning in a smaller size facility where they're going to know all the patients and all the staff, and they're going to be in an intimate relationship with a smaller community: a very unique situation which is not going to take place in any of our larger metropolitan centres.

Another area where we might think of aiming incentives is to talk to some of the professionals who are in their so-called mature, middle years. It may well be that there are a number of medical doctors or other health care professionals whose own families have grown up, had the advantage of elementary school, a high school education and are into their university years, or perhaps they've even graduated through that spectrum. At any rate, they've left home. Those medical doctors who find themselves in that position may well decide, as a number of us in this House may decide, that the rat race really isn't worth it anymore. There comes a point when we decide, yes, we've given enough in this particular role. It may well be that this is a whole target group of health care professionals, not just medical doctors, who might be reattracted and rechallenge to go to some of the smaller communities and be of service to people there, but also in the sense that they themselves might find a new pace of life. They might find themselves again having more time for their spouse, for some of the other things in life, rather than just becoming medical workaholics.

Mr. Speaker, once again, I commend my colleague and seat mate from St. Paul on bringing forward Motion 215. I hope all members of the Assembly will give support to the motion.

DR. REID: Mr. Speaker, I had considerable doubts about entering this debate until the Member for Calgary Millican spoke about those professionals in their mature, middle years. I thought perhaps he was addressing me. I thought I was a little post-mature, like some babies who

arrive in the world.

The subject of health care professionals in rural and northern Alberta is extremely complex. Many factors interplay with each other. For all the studies that have been done — this was one done for me; this is another one; this is the one done for the Northern Alberta Development Council — none has really come up with a definite and firm answer as to what the problem is.

The problem does not just apply to the medical profession, about which I will make some remarks in a short time. I would like to refer to some other significant professionals. The numbers in the cities of Edmonton and Calgary are between 1,000 and 2,000 per dentist. Outside of Edmonton and Calgary, it ranges up to as high as almost 6,000 per dentist. I'll leave the chiropractors alone for obvious professional reasons. In the cities of Edmonton and Calgary, there is approximately one dental hygienist for every 5,000 to 8,000 people. Outside the cities it's as high as one for every 64,000 people. Dietitians: 5,000 to 6,000 per dietitian in the city of Edmonton, and as high as 20,000 outside. It goes on and on. In particular areas that affect the medical profession — it's about one laboratory technician for every 1,500 people in the two larger metropolitan areas. Outside those areas, it is somewhere in the vicinity of one for every 3,000 to 5,000 people. Physiotherapists likewise: in the cities of Edmonton and Calgary about 3,000 people per physiotherapist; outside those two cities, anywhere from 6,000 to 35,000 people per physiotherapist. Psychologists: the same type of thing.

As I said, the interplay between the various factors is considerable. But being a physician, I would like to address my remarks to the problem of physician services. I still feel that in many ways the physician is the leader of the team that looks after medical care and the whole approach to the provision of medical care either in the city or in the rural areas.

I've given some numerical figures in relation to people. Of course the other factor involved is the financial recompense that's available. I think one has to look at the net figure, not the gross. It is true that if you look at general practitioners, who are most of the medical practitioners outside the two megalopolises, the ratio of general practitioners to specialists is much higher in the smaller centres. That is due in part to the fact that the third-level specialists, the heart surgeon and that type of person, require a very large population base. They also require extremely complex facilities for the provision of the type of care they deliver. But if one looks at the general practitioner incomes in the two major cities and in the areas outside those cities, one finds that on the surface the problem does not appear to be money, in that to some considerable extent the general practitioners — and I prefer that word rather than family practitioner — outside the cities make at least as much as the general practitioners inside the cities. In fact, in many cases they make more. When one looks at medians, there is a slightly higher median for rural GPs than for urban GPs.

What in actual fact happens — and I can say this from personal experience — is that in the rural areas one is working absolutely at capacity all the time that one is at home in the community. The only way to get away from the load is to leave town. It may be that those in the country take longer holidays in order to get away from the load, but I doubt it because in many cases there is nobody to take their place.

At the beginning, I mentioned the mature, middle years and applied it to myself. Medically speaking, I belong to

a rapidly decreasing number of people in rural areas who, while not having their fellowships in surgery, have considerable training and provide a level of surgical care that in the cities often requires many individual specialists. I'm referring to the results of being in an automobile accident on a highway in rural Alberta compared to a city. If one arrives at a rural hospital where there is a person of my own particular group, the chances are that your chest, abdominal, and bone injuries will be looked after by one individual doctor as far as surgery is concerned. Indeed, if you transect a major vessel, that probably will be repaired by the same doctor. On occasion, if your head is injured the same doctor will be doing it.

I belong to a group of physicians who are now rapidly decreasing in number and for whom there is no possibility of replacement by the present training schemes. The College of Family Practice of Canada has produced a residency program which does not train physicians for rural practice. I make that as a definitive statement. It has been backed by many groups, including the Alberta Medical Association, The Canadian Medical Association, and The Royal College of Physicians and Surgeons of Canada. They produce a male or female physician who is suitable for the urban general practice. But there's a greater problem than that in rural areas, in that there is not a population sufficient to support a specialist, who is, after all, not a specialist in the way people think, in that he's better at one thing and equal in others. A specialist is somebody who has restricted his practice to an increasingly narrow part of medicine as he becomes more and more specialized. The result is that he requires a greater population base the more specialized he becomes, and it is absolutely impossible to provide all the specialists on a regional basis throughout a province as large as Alberta.

Therefore, we require the Minister of Advanced Education and Manpower, who has some excellent programs, to somehow persuade our two university medical centres to put on some form of program which will enable us to continue to provide an adequate, never mind the best, level of medical care in a diverse and increasingly decentralized province. We have to provide adequate medical care in the more sparsely populated areas of the province, and that can only be done by replacing people such as myself. I believe the number of us throughout the province is approximately 20. We are referred to as general practitioner surgeons. I can assure members of this House that if something is not done to train those people and to attract them to rural areas, it will become not necessarily increasingly dangerous to drive the highways of Alberta but it will become increasingly dangerous to be injured upon those highways.

The subject of financial stimuli has been mentioned. In closing, I would like to mention briefly two approaches that have been taken. In northern Ontario, the Ontario government provides a stimulus on a short-term basis to encourage people to go to the northern areas and to practise there. In British Columbia, it's an increment on the medicare schedule of benefits. Neither program has really worked satisfactorily, but of course the Ontario program stimulates the revolving door concept of medical care in rural areas, in that as soon as one has reached the maximum grant at the end of three to five years, why stay there? He might as well go back to the large city and have somebody replace him in the rural area. That does not provide the best level of medical care or, indeed, in many cases adequate medical care.

The concept of an additional amount on the schedule of benefits may address the problem somewhat better. I

have no idea of what sum or percentage would have to be added, but it might in due course indicate to people that if one goes to rural areas one will at least get an additional amount to cover the additional costs of living in the scattered population centres of Alberta. Being a bit of a music nut, I know that to go to the Edmonton opera costs me approximately 50 times as much as it costs a city doctor. I have some 400 miles of driving, an overnight hotel bill, and meal costs that the city doctor does not have, be he specialist or general practitioner. The same applies to the symphony and to other cultural pursuits. If I wish to go to courses or lectures, the same thing applies.

I've been speaking on a very personal basis, Mr. Speaker, but these are facts I can vouch for personally, and I therefore feel it was justified. I've had an interest in this subject for many years. It's been well known as a hobby horse of mine. When I retire from practice in Hinton, I would like to feel that I leave behind me a standard of medical care for my patients that is at least a replacement of what I have provided over what is now a quarter of a century, and by the time I retire may be 35 or 40 years. But I have a concern, and I feel a sense of responsibility. For that reason, it has been a pleasure to take part in the debate on the motion put forward by the Member for St. Paul.

In view of the fact that several members have a dinner appointment in the cafeteria with the association for the mentally handicapped, I beg leave at this time to adjourn debate.

MR. SPEAKER: Does the Assembly agree?

HON. MEMBERS: Agreed.

MR. YOUNG: Mr. Speaker, if I may, I'd like to indicate that the order of business this evening will be to commence with Bill 78 in Committee of the Whole and, assuming that Bill is completed, subsequently to spend some more deliberation on the supply matters before the Committee of Supply.

MR. R. SPEAKER: The Department of Energy and Natural Resources?

MR. YOUNG: I believe that would likely be the case, but I'm sorry I'm not able to state with certainty.

Mr. Speaker, on the basis of my understanding of the order of events this evening, I move that when the House reconvenes at 8 o'clock, it reconvene as Committee of the Whole.

MR. SPEAKER: Does the Assembly agree?

HON. MEMBERS: Agreed.

[The House recessed at 5:30 p.m.]

[The Committee of the Whole met at 8 p.m.]

head: **GOVERNMENT BILLS AND ORDERS**
(Committee of the Whole)

[Mr. Appleby in the Chair]

MR. CHAIRMAN: Will the Committee of the Whole Assembly please come to order.

Bill 78
Petroleum Incentives Program Act

MR. CHAIRMAN: Did the minister want to make any statements? Are there any questions or comments regarding the sections of this Act?

[Title and preamble agreed to]

MR. LEITCH: Mr. Chairman, I move that Bill No. 78, the Petroleum Incentives Program Act, be reported.

[Motion carried]

MR. CRAWFORD: Mr. Chairman, I move that the committee rise and report progress.

[Motion carried]

[Mr. Appleby in the Chair]

MR. PURDY: Mr. Speaker, the Committee of the Whole has had under consideration and reports Bill No. 78, and begs leave to sit again.

MR. DEPUTY SPEAKER: Having heard the report, are you all agreed?

HON. MEMBERS: Agreed.

head: **COMMITTEE OF SUPPLY**

[Mr. Appleby in the Chair]

MR. CHAIRMAN: Will the Committee of Supply please come to order.

head: ALBERTA HERITAGE SAVING TRUST FUND
CAPITAL PROJECTS DIVISION
1982-83 ESTIMATES OF
PROPOSED INVESTMENTS

**Department of Energy and
Natural Resources**

1 — Alberta Oil Sands Technology and Research Authority

MR. NOTLEY: Just before we go on with this vote, last day on page 1537 of *Hansard*, I asked the minister if he could outline the role of the advisers to the staff, the technical representatives, and the members of the authority, as far as the project is concerned. The minister indicated that he wasn't sure he could give from memory the exact processes. Perhaps we could begin our discussion this evening with giving the minister an opportunity to respond in some detail to the role of the appraisal committees, what the function of the technical staff is. Clearly, Dr. Bowman is not going to be in a position — any more than the minister or the members of this

committee — to make all those technical decisions. There has to be a clearly defined process; I have no doubt there is. Perhaps the minister could outline specifically what it is.

MR. LEITCH: Mr. Chairman, I can give a brief overview of the way projects are approved and monitored by AOSTRA. AOSTRA's board, of course, approves the specific agreements. But in order to make a decision on specific agreements, it receives advice from the standing appraisal committee, certainly on new initiatives as well as in respect of ongoing projects.

Dealing with the ongoing projects, Mr. Chairman, the management of AOSTRA receives technical and operating reports from AOSTRA's representatives on the joint management committees, which are established by the various agreements. There's also an AOSTRA technical staff member who actually works in the operator's office. Under the project agreements, the operator is required to make periodic reports to the board at certain stages of the program or as events occur.

The operator is also required by the agreements to make an annual report to the board, and that's normally accompanied by an oral briefing to the board. AOSTRA carries out an annual audit of each project, and periodic inventories, usually done by outside firms. Mr. Chairman, that is a brief outline of the way AOSTRA operates. The various advisory committees give advice to the board, with the board making the major decisions in respect of entering into new agreements or taking new initiatives.

MR. NOTLEY: Mr. Chairman, I wonder if I could just follow along for a moment. As I understand it, there is an annual audit. The minister has indicated that, and that's fair enough. That lets the AOSTRA authority know whether or not the funds are being properly accounted for. What is not clear in my mind, Mr. Chairman, to the minister, is the question as to whether or not solid progress is being made from a scientific point of view. An auditor is not going to be able to determine that. An auditor can determine whether \$20 million was properly expended or \$2 million was properly expended according to the agreement. But whether or not we're making any progress, the kind of progress, and determining that question, seems to me to be probably as important as the audit function itself. I guess the point I'm not clear on — I understood the appraisal panels did that, but as I gather from the minister's answer the appraisal panels are more of an initial step. Who is going to be doing this ongoing scientific auditing or scientific review, if I can use that expression? The minister said there would be a person working in each project. That would be fine with a small project. But some of these projects — many, many millions of dollars with a potential of billions of dollars, and one person obviously isn't going to be able to do that. So the question very specifically is, how do we monitor the scientific aspect of these projects?

MR. LEITCH: Mr. Chairman, that would be monitored essentially by the AOSTRA representative on the joint management committee, and also by the technical staff member who actually works in the office. Then as I mentioned, there are periodic reports given by the operator to the board of AOSTRA and, as I understand it, the board gets such technical advice as it feels appropriate to make an assessment on those reports and on the progress of the project. On the basis of those reports and that

expert advice, they would make a decision as to whether the project is proceeding along the lines specified in the agreement, whether any changes ought to be made. So it's getting factual reports plus, obviously, the views of the operator and the other participants in the project, then gets advice from its own employees and from the technical advisers to the board, as well as acting on its own information or its own expertise, if you like. There are members of the board who have considerable expertise.

MR. NOTLEY: Mr. Chairman, I don't argue the fact that there are members of the board with considerable expertise. But we're talking about major projects, which from a scientific point of view would probably be, if not unequalled, seldom equalled in terms of their scope in the history of the country. For example, as I look over the members on the board, certainly several of them at least, if not all of them, bring a good deal of expertise. But looking at the projects, when we're talking about projects that are tens of millions of dollars — let's just take the biggest one, Shell — surely we're not relying on just one person who is employed by AOSTRA.

Perhaps we could go through this process using Shell as an example because it's the biggest one. What would we have in place, in terms of providing independent evaluation of the scientific data? No one's questioning that the money isn't going to be spent according to the agreement; absolutely no doubt in my mind on that score. The audit function the minister alluded to will deal with that. I don't think that's at issue here. But what is troubling me at least is whether or not we have the capacity to evaluate the scientific data. It seems to me that in a massive project, one person or verbal reports once a year or even periodically will only alert the AOSTRA board if a serious problem is developing, as opposed to the ongoing kind of scientific evaluation which surely has to be part of a project where we're committing tens of millions of public dollars.

MR. LEITCH: Mr. Chairman, I think it is. I pointed out that AOSTRA has one of its own representatives on the joint management committee, and a technical staff member who actually works in the operator's office. There's no question that these are large research projects. But a great deal of the funds would be in the actual drilling of the test holes in a number of the cases, because they're testing processes in the deep sand and, of course, in the monitoring treatment. Mr. Chairman, in that respect it differs somewhat from research expenditures in other areas, where the expenditure might be of a much different nature.

But certainly the AOSTRA board members — in particular, Dr. Bowman, who has extensive background in research — appreciate the need for an evaluation of the project and for appropriate sources of advice, not limiting it only to his own opinion or the opinion of the full-time employees of AOSTRA. As I pointed out, they retain a number of consultants in respect of these projects. So there's no question that there's an ongoing assessment by a variety of people as to the project and its progress.

MR. NOTLEY: Mr. Chairman, I think we're putting a tremendous amount of responsibility on that technical staff member. Who pays for the technical staff member? Is the technical staff member part of the agreement with a given company, so that a portion of his salary would be picked up by the participating company? Or in fact would his salary be totally paid by AOSTRA, so that there

would be complete independence and no career conflicts or possibility of difficulties in that sense?

MR. LEITCH: Mr. Chairman, my understanding is that the technical staff member is an employee of AOSTRA, and they would of course pay his salary. I believe that salary is part of AOSTRA's 50 per cent contribution to the project.

MR. NOTLEY: Mr. Chairman, just to follow that along. Is there a general policy, as a result of these agreements, that there are written reports by the staff people on a periodic basis? The minister said, verbal reports. Now I can understand that there may well be occasion for verbal reports. But it would seem to me that if we're talking about \$60 million, there would have to be some formalized process of regular, written reports as well. Otherwise, how would we be able to look for a second opinion, and how often have we sought a second opinion? Is the minister able to advise whether we have done this on a regular basis, or whether it's just been very, very occasionally that a second opinion has been sought from a consulting firm in the area?

More specifically, to put the first question first: is a guideline set out to all these technical staff people that in their work they would keep specific records and that there would be written reports, which would be available to Dr. Bowman and presumably to the minister if he chose to examine them?

MR. LEITCH: Mr. Chairman, I said in my overview that AOSTRA received technical and operating reports from the two people, the AOSTRA representative on the joint management committee and the AOSTRA technical staff member. So AOSTRA receives written reports as opposed to verbal, both the technical and operating nature.

MR. PAHL: Mr. Chairman, I'd like to join the discussion briefly, because I think the hon. Member for Spirit River-Fairview has overlooked something. I guess, given his persuasion, it's something he would never really understand; that is, that when industry is putting up half the money, they tend to have a pretty strong interest in succeeding. That tends to introduce an incentive that people in the private sector tend to understand. If you're putting up a good deal of the money — not half, in the case of Shell at Peace River, because Amoco Petroleum is a participant as well — you then have a very strong motivation for success.

I think the hon. member is also forgetting that here the provincial government and industry participants are doing frontier work that is unique in the world. Quite frankly, the experts are the people on site and the people employed by AOSTRA. In fact, no one is more knowledgeable in the area than the people involved. This is frontier work. So you could be hiring experts and outside consultants year in, year out, and all you would be doing is educating them as to what's happening in oil sands so they could learn a little bit more each year. And they wouldn't really be very much further ahead.

The point the hon. member is concerned about is perhaps worth while in a sense. I guess he wasn't in his place the last time estimates were on, when I remarked on the industry/university exchange program, where there was a very definite indication of progress. I explained it, and I hate to take up the committee's time by doing it again but obviously the point needs to be reinforced. In the case of the university exchange program, Mr. Chair-

man, the situation five years ago was such that all the expertise was really in industry. The university professors, students, and graduate researchers were very much behind. In the course of the five years since I was first exposed to the program, the university researchers have become very much ahead.

A situation existed where, for example, the whole Clark hot water process is predicated on the assumption that there is an envelope of water around each grain of sand, and that is covered by oil or tar. Now, that's been the article of faith of all the commercial processes, and yet that has not been proved scientifically or definitely. What's happened is that in the process of trying to prove what everyone has assumed, university researchers have far exceeded achievements made by the private sector, in terms of discovering a unique way of trying to identify and portray the exact chemistry of the oil/water/sand interface in the process. So there is a measure of progress. It's easy to see in terms of the way, in this case, the university group has by-passed the more practical, if you will, orientation of industry.

I think the other point that should be reinforced for the member is that although great deal of money, in the millions of dollars, is being spent in these projects, the measures of success are fairly straightforward and well known. One index is the rate at which the formations will take heated water or steam. The other is the ratio of produced fluids to the amount injected. All these things are relatively straightforward and easy to measure.

So I think the concern is valid, but you have to recognize that we are on the world frontier with respect to oil sands and heavy oil development. The expertise is very limited and very small, and I'm proud to say it's very much concentrated in the AOSTRA staff, in their consultants, and in the industry partners that are dedicated towards this very worth-while project. So I think it's worth pointing out that once you put up your money, all of a sudden you have a vested interest. To suggest you need a watchdog watching the watchdog watching the watchdog is a bit counterproductive when you're in the area of fundamental frontier research.

MR. GOGO: Mr. Chairman, I hadn't been particularly interested in AOSTRA until people got involved in it. After studying the book, I want to make a couple of comments. I didn't really recognize how very important AOSTRA is to young Albertans. For example, my understanding until now was really that the big oil companies — we'll say being Gulf, Imperial, and Shell — did primarily all the research in Canada. It's very interesting on page 11 to see the involvement of other oil companies. I think the implications are what attract me.

First of all, Mr. Chairman, I see they average really about an application per week, about 50 a year, ever since AOSTRA was formed back in 1975. One would think if this were a sort of flash in the pan, it would tend to have fallen off. But I see there were 47 applications just in the recent fiscal year.

Mr. Chairman, I'm very excited with regard to the opportunity it offers Alberta students. I see one new professor, Dr. Spanos, whom I knew as an undergraduate at the University of Lethbridge. I just think what marvelous opportunity AOSTRA affords young Albertans who want to get involved in this kind of work. As well, I see Dr. Lorne Hepler from the university in Lethbridge West. Upon reading through this, I recognize the great contribution some of these people make to research, particularly using the vehicle of AOSTRA.

Finally, Mr. Chairman, I want to comment on a member of the board. Hon. members of the committee are well aware of Mr. Kidd, a professional engineer, as I recall, who for four years represented Banff-Cochrane here in the Assembly. I'm very pleased to see that he's still a member of the authority. Recognizing Mr. Kidd and the knowledge I have of when he was a member of the Assembly, my view would be that as one member of the authority, certainly there's no question of accountability within AOSTRA.

With that, Mr. Chairman, I want to ask the minister to pass on my congratulations to both Dr. Bowman and those members of the board for giving young Albertans an opportunity to pursue some very technical and research projects.

Thank you.

MR. LEITCH: I'd be delighted to do that, Mr. Chairman.

MR. NOTLEY: Mr. Chairman, I don't often agree with the Member for Lethbridge West, but I certainly agree with his comments about the general performance of Dr. Bowman and the officials of AOSTRA. Certainly I would be less than honest if I didn't say that.

However, when we are studying significant public estimates, I think that certain questions must appropriately be put during the course of the study. The hon. Member for Edmonton Mill Woods raised some observations about the work of university people in the research field. I thought those comments were quite apropos, not necessarily in terms of what's been done in the last few months or even the last few years under AOSTRA. A significant amount of work has been done, but we would not be in the oil sands field at all if it were not for the work of the Alberta Research Council and the very considerable expenditure of public dollars that took place in the 1940s. I think we're indebted now for some of that initial spade work.

Mr. Chairman, the point I want to make is that when we examine the estimates — we're talking about \$54 million this year, of course — funds have been committed in very sizable amounts: \$62,900,000 to Shell, almost \$27 million to Amoco. I won't go over the list, but a total of \$118,698,000. So we have very significant funds already committed, and requests over the next four or five years. The minister told us the other day that not all those requests are being met. Nevertheless, we're looking at a total of \$418 million by 1986. That's a significant amount of money, Mr. Chairman.

As a consequence, we have to know what the control procedures are. I just say to the minister that I would still suggest we're placing a fairly heavy burden on that one technical adviser, particularly with some of these very large projects. I simply want to say that, and then deal with several other questions on the present agreements that I would put to the minister.

A week ago, when the minister undertook that marathon reading, he just got to the interesting part. It seems to me that he was just about ready to embark upon the Shell/AOSTRA agreement as it relates to the technology developed and the terms of its transfer. I know that the Member for Calgary Buffalo asked the minister to complete the reading. I'm not entirely sure if this is Sunday morning prayer, where we have an Old Testament and a New Testament reading. Nevertheless, we certainly had the first part of it. But, Mr. Minister, you didn't read the key part that deals with the method of transferring tech-

nology. I hope you would read it. But if you don't, I hope it would be tabled with members of the committee, because I think it would be useful for us to have that information. Basically, that's so much of what AOSTRA is all about.

So the first point I would make is that I think the minister should conclude the AOSTRA/Shell agreement explanation, and in the absence of that at least table the agreement so we can review it. This is not something just by the by, Mr. Chairman, because we're talking about developing scientific techniques which are going to have a very, very appreciable value for Albertans and for the companies. It would be my understanding, however, Mr. Minister, that were we going into a contract, one company with another, even if there was a cost-sharing arrangement, some royalty would be paid. It seems to me that while we have the right to sell these improvements to other companies, the participating company is still getting a pretty good deal from our point of view and from their point of view, as well. Close to 50 per cent of the costs are being underwritten, and the company has information which they can patent, improve if they choose, and sell elsewhere around the world.

The second area I want to cover is whether AOSTRA people, as a result of their independent assessment, have done any survey on what the recoverable reserves are. I know that is essentially the responsibility of the Energy Resources Conservation Board, but I can't imagine we'd be putting a good deal of money into AOSTRA without AOSTRA compiling figures.

I've had it brought to my attention, and I can't testify to the accuracy of this information, that there is a difference, for example, between the AOSTRA figure on Cold Lake's potential reserves and Esso's. I don't know whether that's true, Mr. Minister. That's why I'm asking you in the discussion of the estimates. It seems to me that part of that 20 per cent return on the Cold Lake venture takes into account Esso's assessment of the recoverable reserves. If there are AOSTRA figures that show higher reserves, that would obviously have some impact on the ultimate rate of return. What is the specific role of AOSTRA in the area of independent evaluation of reserves of heavy oil and the oil sands area?

It seems to me that the expertise AOSTRA develops is extremely useful and would be useful for the ERCB even though, I would take it, the technical responsibility would rest with the ERCB. I can't imagine that AOSTRA wouldn't be in that field in a big way. After all, why would we be committing public funds in the first place, if we aren't in fact pushing back the threshold of recoverable reserves? It would seem to me that there should be some information on that question at this point in time.

Mr. Chairman, the third area harkens back to a point the hon. Member for Calgary Buffalo raised with respect to the quality of the environment. It may not be necessary to deal with the exact page number, but it was raised by the hon. Member for Calgary Buffalo as one of the areas of AOSTRA's mandate. To the minister: with that as one of the clear responsibilities of AOSTRA, what specific studies, if any, have been done by AOSTRA on the sulphur emission and acid rain problem in the McMurray oil sands region?

I know we've had some studies done by the other federal/provincial agency, the abbreviation of which just escapes me at the moment. But has any specific study been done by AOSTRA on changes that might, in fact, improve the quality of air and water in the region, and whether a company like Syncrude or perhaps GCOS

would have any occasion to discuss technology improvements with AOSTRA that would be useful for ensuring an acceptable quality of the environment.

MR. ADAIR: Mr. Chairman, inasmuch as we are talking about the Shell-Peace River project, I thought I might take a moment to say a few comments about a project fairly close to my community and also fairly close to my heart. I'd like to give a little bit of history about the project itself, going back to when it was first started.

I'll start with the fact that the *in situ* project right now is employing 52 people, that's permanent employees of the plant in Peace River. They have roughly 15 to 18 people under contract. Approximately 50 per cent of the contract employees are of native origin; in other words, come from the local area, primarily the Cadotte-Little Buffalo area that is very close to the project itself.

The plant was officially opened on November 22, 1979, by Mr. Daniel, the president of Shell, and the MLA for the area, yours truly. We turned the wheel to open the valve that started the pump for the number 1 injection well. On site right now at the Shell plant in Peace River, are 24 operating wells with seven injection wells.

Steam injection began in January 1980. They encountered some difficulties when they first started pumping steam, as a result of steam pipes over ground and pumping the steam into the ground. They had freezing occurring right at the surface, and they had to build little huts around each of the wells. That caused them some difficulty and some slowdown. It took approximately one full year of steam injection to create the hoped for hot-plate effect the company was working on; in other words, heating the subsurface to the point that it would warm up the bitumen sufficiently for it to begin to flow.

I might indicate that there is a fairly good flow of bitumen right now. The present production is 450 to 500 cubic metres, or roughly 3,150 barrels of bitumen per day. Once they get that product into the plant, they do some processing of it and produce three products right now: bitumen, vacuum gas oil, and asphalt. It's kind of interesting to note that they are producing asphalt, because it's one of the products we can use in road improvement programs throughout the province: our primary, secondary, and other roads to resources that are presently under paving contracts. That asphalt will be a very important part of those programs down through the years.

Now, the capacity of the Shell plant at Peace River in total is some 110,000 barrels, 60,000 barrels of which is for storing pitch, 30,000 barrels for storing vacuum gas oil, and the balance for the other by-products. It should be noted, Mr. Chairman, that one of the by-products, pitch, can and is being used by the project to be burned to generate steam to be pumped below the surface to heat the pay zone to obtain more bitumen.

On occasion the Shell-Peace River plant has shipped its product to Lloydminster. As I understand it, with the discussions I have with officials out there on a regular basis, that is only done when they run short of storage space. They have a place to send that product. It's not one of the better paying propositions for the company.

The present plan is communicated on many occasions at public meetings, and on many of the tours they conduct of the plant itself. They conduct tours on a regular basis for school groups, business groups, international visitors, and anyone who is interested in going to the actual plant site. Generally, they're attempting to indicate to the public, or to those who are interested, that

it's expected that the first of two full steam cycles will be completed by the end of 1982. The start of the second cycle would obviously follow shortly thereafter. It's anticipated that Shell-Peace River would then be in a position to begin to evaluate the successes to date, if any, of the project, the product produced, and the effect of that particular steam cycle and what it may have for a future commercial-sized plant.

In my discussions with members of the company out at the site, I asked them why they would then be going to a second steam cycle. They indicated that it would be generally just to back up the information they would be reviewing from that first steam cycle. I guess the simplest form, as was indicated to me, is that if two and two make four, they just want to make sure the second time they run it around that it is still four. Therefore, they would be running that second steam cycle. With the evaluation of the project, the review of the cost estimates and other related points, it's hoped that Shell may — and I repeat, may — be in a position to proceed with a formal application for a commercial-sized, *in situ* plant by sometime in the year 1984.

Mr. Chairman, two other points relative to that project that I as the M.L.A. for the area should make are that as a corporate citizen, Shell-Peace River has co-operated to a great extent with a good number of communities in the area. Without hesitation, they have held public meetings to discuss and explain the various aspects of the project. As an organization they have been very, very much involved with many community projects in the area. They have made donations to projects in Cadotte Lake, Little Buffalo, Nampa, Peace River, Grimshaw, Berwyn, and, yes, in Fairview.

Shell-Peace River recently opened a new office in the town of Peace River. As I understand it, the official opening of that office is slated for sometime in late November or early December 1981. The office will be managed by Mr. Don Fritz. He will be there to provide the opportunity for the public to participate in the long-term planning process of a future plant. It's my understanding that if Mr. Fritz were contacted, he would be prepared to attend meetings or open houses or possibly assist in the formation of open houses or coffee parties, for that matter, to ensure that the public is kept well informed as to the project's progress.

As the M.L.A. for the area, I watch with a great deal of interest just what is happening with that project. I watch with enthusiasm as I see the employees of the project getting involved in the community, working with minor hockey and ball, with all the other aspects, working with the communities where they're possibly short of funds to purchase books for their libraries, or whatever it may be. In my mind, they at the site are an extremely good corporate citizen in working in that respect with the various communities in the Peace River region.

As I said a little earlier, they offer tours, and quite a number of school groups go out to see the plant on a number of occasions. I've been out there on many occasions with school groups, officials of other departments, or visiting dignitaries from various countries of the world, who are always quite excited to see exactly what the project is doing. Just a year ago, I had the opportunity to take the former Lord Mayor of the city of London out there. He's a mining engineer and was very much interested in exactly what was going on, and spent some time firing questions at various representatives of the Shell project as to what they're going, how they're going about the separation process, what they'll be using the

by-products for, and what the end results will be.

What will the end result be? If all things are tested to the degree the company is hoping for, it's their observation that they would be making an application for a major commercial-sized plant after completion and evaluation of the first steam cycle. If that evaluation is positive, they would proceed with it. If it's not, obviously they're going to have to reassess what takes place with that second steam cycle and where it should be leading them.

If a formal application is made in 1984, that means the major plant could be some time in the five years after 1984. So there's a fairly long term impact of the *in situ* project in the Peace River area. If it were not for the likes of AOSTRA and the co-operation of the Department of Energy and Natural Resources, who have played a very major part in this particular development to date, I don't think we would have the kind of innovative thinking and the kinds of results we appear to be gaining in that project.

At this point in time, Mr. Chairman, it looks like it has all the aspects of a future commercial-sized plant. I'll watch with a great deal of interest as the Minister of Energy and Natural Resources, the officials of AOSTRA, and the Shell project people steer toward that day when they have evaluated the project, completed that first steam cycle, moved into the second, and have indicated, with positive results, that they are heading into a formal application for the commercial-sized, *in situ* plant in Peace River, hopefully sometime in 1984.

MR. PAHL: Mr. Chairman, I want to rise because one comment the hon. Member for Spirit River-Fairview responded to was on my point. I listened with interest to his concerns, and I thought it might be worth while to point out some of the facts of our undertaking in our commitment to AOSTRA with respect to the points he raised.

First, he raised a question with respect to an estimate of the reserves in total. Certainly, that is primarily the responsibility of the Energy Resources Conservation Board. But if you think about this a little, it's been conservatively estimated that it would take about 12 Syncrude-sized plants 100 years to mine all the surface minable deposits in the Athabasca deposit alone. If you think about the fact that the presently surface-minable deposits — that is, those deposits overlaid with 150 feet or less of overburden — constitute approximately 12 to 15 per cent of the total reserve, you can see very quickly that the objective is not to measure to the last, let's be generous, cubic mile of tar sand to establish the reserve. [interjection] Cubic mile — cubic hectare, I guess it is, or cubic metre.

Perhaps what is important, though, is the commitment AOSTRA has made with respect to its research objectives; that is, not so much to measure the reserves in place but the recoverable reserves. The target of the AOSTRA program is to recover at least 50 per cent of the oil in place. That certainly is a much more ambitious objective than the Cold Lake plant, which appears to want to mine a very narrow band of the total deposit. So even though AOSTRA is working in the area, they are looking at a more ambitious recovery rate.

While I'm on my feet, I think it's also worth pointing out — and it responds to the question of how much is there and how much we can recover — that very early in its life AOSTRA recognized that there were essentially four different types of deposits, and there would probably be four different techniques for extracting oil from those

deposits. First is the Peace River deposit that the hon. Member for Peace River spoke on so clearly. I guess firstly might be the Athabasca deposit, more widely known. *In situ* and surface mining techniques are practised there. An extension of that is the Wabasca deposit as well. Number three would be more clearly defined as the Cold Lake deposit. The fourth would be the carbonate trend. In terms of its aerial extent, the carbonate trend is much larger than the other three. Although it's heavy oil, it's involved in a deposit of carbonate rock that's completely different from the oil sands of the other major deposits. So trying to quantify the total deposit seems to be a rather low order of priority, and I'm quite thankful that AOSTRA is not reinventing the wheel in that area. But there is recognition that the deposits are different, and a target of 50 per cent recovery.

The final question I recall being addressed by the hon. Member for Spirit River-Fairview was with respect to concerns about the quality of the environment. Again, referring back to the early days of AOSTRA and its first linkage with the Alberta oil sands environmental research program, there was an important linkage in that a member of the board was Dr. Ballantyne, who was formerly Deputy Minister of the Department of Environment. In the early stages of defining their energy breakthrough project, they made the goal to ensure that all supported technology is environmentally acceptable. That technique is to stop the pollution, if you will, at the plant gate or, given the direction of research in AOSTRA now — they are studying such things as the establishment of a sulphur probe and the kinetics of gasification in oil sands coke — to try to put a handle on the sulphur problem and cure it within the plant.

Additionally, in the university program, a researcher from the University of Lethbridge, by means of studying the vegetation around the existing plant sites in the Fort McMurray area, is looking at the footprint, if you will, or the spread of pollution from the plant and, within the spread of the plume, establishing a typology of plants and determining which plants would be at risk from the SO₂ emissions. From that typing of different plants, the researcher will then develop an estimate of biomass and possible loss of biomass if pollution impinged upon those areas. The early assessment from that research program is that the plants are not at risk at the moment. However, in answer to the question, specific research sponsored by AOSTRA with respect to environmental protection is going on and, additionally, more detailed research into process makes a sincere effort to clean out the pollutant and the contaminants at source.

MR. LEITCH: Mr. Chairman, the hon. Member for Spirit River-Fairview asked about my continuing with the Shell contract or, alternatively, tabling it. I would respond to him by saying that if I find the opportunity to continue reviewing that contract, I will do so. I thought the committee might prefer to ask some questions, and we can come back to the contract at a later date. In the event that I don't have the opportunity to complete the contract and its schedules, I will ensure that it's filed.

I would only add to the comments of the hon. Member for Edmonton Mill Woods in two areas: AOSTRA's role in estimating reserves and in the environmental studies. Primarily, the responsibility for estimating reserves rests with the Energy Resources Conservation Board. The Alberta Oil Sands Technology and Research Authority would certainly be involved in some reserve estimates, and would make some estimates of the possible recovery

as a result of these various projects. But in my discussions with them, AOSTRA would be the first to say that those are very much estimates, and that they have no real basis for relying upon them until they've completed the research projects. That's what the research projects are all about: to determine whether the oil in the deep sand can be economically produced and, if so, in what quantities.

I think it's worth while noting as a general observation that there is a belief on the part of AOSTRA and, of course, on the part of industry, that the chances of developing a process that is going to enable the oil in the deep sand to be produced more economically than the oil now produced from the surface mining technique—if industry didn't hold the belief that it was likely that such a process could be developed, of course it would not be investing the sums it is in the research, nor would AOSTRA. But as to an estimate of the reserves for reserve calculation purposes, that really wouldn't be done by AOSTRA; it would be done by the Energy Resources Conservation Board.

I'd only add to the comments of the hon. Member for Edmonton Mill Woods with respect to environmental studies by pointing out that on page 9 of the annual report, AOSTRA is now working with industry in the preliminary stages of an oil sands extraction test centre. When I say preliminary stages, Mr. Chairman, I mean they're investigating the possibility of proceeding with such a test centre, and the prime purpose of that test centre would be to test new processes for the separation of oil from the sand. As they point out in the annual report, while the hot water process currently used in both the Syncrude and Suncor plants has proved to be very useful, it does have a number of problems, including environmental problems. The purpose of the work now being done on a preliminary basis by industry and AOSTRA is to examine the advisability of building such a centre, which would test alternative processes and hopefully find one that created less environmental problems and also was more economical.

MR. SINDLINGER: Mr. Chairman, the Member for Edmonton Mill Woods and the Member for Lethbridge West have made several remarks, and I suggest their remarks strike right at the issue with AOSTRA: that is, the question of accountability. The Member for Lethbridge West specifically used the word "accountability". However, the Member for Edmonton Mill Woods used the phrase "measures of performance", and suggested there might be two in regard to the expenditures of AOSTRA. One was the rate at which formations will produce. I presume that if the production increased, that would be a measure of performance. The second was the ratio of the amount produced to the amount injected. I suppose both of those are measures of performance. Unquestionably there are more, but the issue brought up by the Member for Spirit River-Fairview was in regard to the systematic, orderly monitoring of the efforts of AOSTRA, and certainly that's what we're here for tonight.

It was pointed out by the minister on another day that as these projects go along, there are logical checkpoints. I submit that this is one checkpoint where we stop and catch our breath, assess and evaluate what has been accomplished by AOSTRA over the last six years and, having done that, make a decision as to whether we ought to continue with AOSTRA over the next five years. There's no question that in the initial stages AOSTRA is a good undertaking. But certainly we do have to stop

from time to time and find out; just ask ourselves what's been accomplished so far.

I would have to submit that the issue brought up by the Member for Spirit River-Fairview indicates that we might have a little difficulty doing that. I relate back to the transcripts when we were discussing the AOSTRA estimates on November 2. The question was asked: how does the minister know what AOSTRA's doing; how does the minister know what's going on with the Shell-Peace River project? The minister replied:

As to the mechanism for reporting, Mr. Chairman, normally the reports are verbal and involve verbal reports by Dr. Bowman, or others from AOSTRA to me, or the economic planning and resource development committee of cabinet.

That causes two concerns in my mind, Mr. Chairman. The first is that the reports are verbal and that they involve verbal reports by Dr. Bowman; not so much just Dr. Bowman but the fact that the reports are verbal, that a record of these things isn't kept. So we're left in a position that if the minister should decide, well, I'm not going to stay in politics any longer, I don't want to be the minister, and somebody else replaces him, that person has to start over again, because those reports on these advances, if there have been any, aren't available.

Second, it indicates to me that there isn't a structured, formal reporting system. The minister says the reports are verbal by Dr. Bowman or others from AOSTRA to me, or to the economic planning and resource development committee of cabinet. It could be one; it could be the other; it might be all of them. Probably it's all of them. But unless there's a formal, structured reporting system, there is no way we can stop at this checkpoint and review what's happened over the past few years. I think we would have to look at that a little more closely.

The Member for Edmonton Mill Woods has also addressed the question of the responsibility AOSTRA has in regard to the environment. The Act is quite clear on that. Part 1, Section 2 gives five different main areas of responsibility. The second major area of responsibility the Act sets says that the purposes of this Act are to provide means whereby:

research into the technological methods required to ensure an acceptable quality of the environment during and after those recovery and processing operations may be assisted, encouraged and promoted

Certainly when this Act was drafted, the drafters had considerable foresight. However, notwithstanding the remarks by the Member for Edmonton Mill Woods in regard to the environmental efforts made by AOSTRA, it's difficult to identify those from the sixth annual report of the Alberta Oil Sands Technology and Research Authority.

I'm looking at table 3 on page 36, which is a statement of revenue expenditure and fund balance. It's a six-year summary for the years ended March 31, 1981. This is quite a meticulous table in that it goes into quite a bit of detail, perhaps not so much on the revenue side, but certainly on the expenditure side. On the revenue side, there are only two entries. One is transfers from the heritage fund and the other is revenue from technology sales. But on the expenditure side, it goes into considerable detail and gives expenditures for institutional research, mining and extraction, *in situ* oil sands, heavy oil, enhanced recovery, bitumen upgrading, and technology handling. It even gets down to smaller areas like training and international activities. We've already discussed in-

ternational activities. But training activities, for example, is a very small area, only \$204,439.

Now each different section, Mr. Chairman, is broken down into considerable detail, and the expenditures are indicated for the years 1976-1981 inclusive, with a total for the entire six-year period. However, conspicuous by their absence are the expenditures on the environment. Throughout this table, there are total expenditures of \$129,349,519. There is a very detailed breakdown of all those expenditures, but it doesn't say if anything over the six years has been spent on environmental studies, notwithstanding the information provided to us by the Member for Edmonton Mill Woods.

I'm certain he is accurate in the information he has given us in regard to tracing footprints, as he says, or finding things of that nature, sulphur dioxide emissions. But I think it would be helpful for us in assessing the performance of AOSTRA over the last six years, if the minister might identify some of the things AOSTRA has specifically concerned itself with in regard to the environment, not only identifying the specific studies or projects undertaken in that area, but also giving us an idea of the magnitude of expenditure in each area, so we can better judge how extensive or intensive the effort was.

MR. CHAIRMAN: Before we continue, the hon. Minister of Agriculture would like to make an introduction. Is that agreeable?

HON. MEMBERS: Agreed.

head: INTRODUCTION OF SPECIAL GUESTS (reversion)

MR. SCHMIDT: Thank you, Mr. Chairman. I have the pleasure this evening to introduce to you and to the members of the Assembly the president of the Western Stock Growers, Mr. Hugh Lynch-Staunton, and members of his executive. They're accompanied by their wives. Would they please rise and receive the welcome of the Assembly.

head: COMMITTEE OF SUPPLY

Department of Energy and Natural Resources (continued)

MR. PAHL: Mr. Chairman, the gentleman just can't help but bring my presence into it, so I'll rise and try to respond. I thought I had explained the environmental side of things. I suppose, thinking of the guests who have just been greeted in our gallery, I would go back to the thing that good farming and ranching practices generally are good environmental practice.

The same thing holds for the business of oil sands research and the technology: if you follow good engineering practices, you generally have good environmental control. The point was made that the psychology is to control the pollutants at source. In other words, if you keep the sulphur from entering the stack, or the coke from entering the watercourses, then it's an environmental problem solved by the process. That has been very much the emphasis.

The other point I think all members of the Committee of the Whole should bear in mind is that this is a long-

term effort. There will be no easy secrets. Dr. Clark of the Alberta Research Council solved the basic secret of removal of oil from oil sands almost 50 years ago. It really hasn't changed very much from that. The basics are there. On the point of the Clark process, which is the hot water process, it has a number of environmental problems. To borrow an expression from the past, if we continue to use the hot water extraction process for the sum total of the deposits, we'll be drowning in our own juices, because the expansion of the clay and the building of swell factor results in a tremendous accumulation of tailings.

One project here — I think it's the Retco process, if I recall correctly — is dedicated to removing fluid from the tailings pond. If you want to take purely the engineering approach, that has tremendous advantages in the process. Because any time you can recycle the water, it has to be a plus. Similarly, it's been estimated that about 40 million barrels of bitumen are contained within the Great Canadian Oil Sands' tailings pond. Obviously, if we had improved a process over the Clark hot water process, that 40 million barrels of bitumen would not be in the confines of that dike.

So although you cannot identify a line in table 3 that says environmental expenditures, in fact there are environmentally oriented expenditures throughout. I hope that that additional information would add to my remarks. I'm sure the minister has more to say, but I would again emphasize the long-term nature of the work. The research started some 50 years ago. The basic, primitive, first-generation technology of extracting oil from oil sands is now under way with what I would call first-generation plants in Suncor and Syncrude. These processes being worked on by AOSTRA in co-operation with industry partners will evolve second and third generations, and possibly as an intermediate step, some generation and one-half with respect to the hot water process, and back to the point that if you have an adequate, well-designed extraction process, it in itself will contribute to protection of the environment that is, of course, an overlying concern.

MR. LEITCH: Mr. Chairman, I might just add to the comments made by the hon. Member for Edmonton Mill Woods by calling the committee's attention to page 50 of the fifth annual report and five-year review. On that page, it's stated:

An important goal of AOSTRA is to ensure that all technology it supports is environmentally acceptable. Other governmental groups have the responsibility for setting limits for materials released to the air, waters, and land, and also for undertaking research on the effects of various contaminants on the natural environment. The Oil Sands Technology and Research Authority . . . requires that AOSTRA strive to develop processes which will safely meet such limits.

This concern for the environment includes pilot tests, as well as commercial plants. The operators of experimental projects must secure approval from Alberta Environment, and AOSTRA shares the responsibility for the environmental acceptability of pilot projects for which it provides funding.

Considerable environmental research is being done as part of the research programs described previously. Some of the projects with important environmental aspects are listed below . . .

I just want to make two points there, Mr. Chairman.

The environmental research is being done as an integral part of the various research projects we've been reviewing. In addition to that, there are specific research projects related to the environment, and some of them are listed on page 50 of the five-year review. They include: "Recovery of heavy metals, especially vanadium and nickel, from cokes derived from bitumen", being conducted by the University of Western Ontario. "High temperature-pressure reactions of water with bitumen, especially sulphur-bearing compounds, simulating what might occur in steam injection or partial combustion underground", being conducted at the University of Calgary.

"Removal of clay from process water" is being done at the University of Lethbridge, and by Retco Engineering Ltd. of Calgary and EcoPlastics Limited of Toronto. "Oil/water system studies including means of separating emulsions" is being done at the University of Calgary, the University of Sherbrooke, and the University of Saskatchewan. "Hot water-mineral interactions" is being done at the University of Lethbridge and by researchers at the Alberta Research Council. "Desulphurization of coke from oil sands bitumen" is being done at the University of Calgary. That was the specific environmental work being done at the time of publication of the five-year review. But as I pointed out, environmental research is a component of all these projects and an integral part of them.

MR. R. SPEAKER: Mr. Chairman, I wonder if the minister could comment in terms of the dollar value placed on environmental research. As I read the purposes of the Act — as my hon. colleague has pointed out — the purposes of this Act are "research into technological methods". As well it says, research into technological methods relative to oil sand products, and so on, from the oil sands. In terms of environmental research, there's an equal emphasis. But in terms of dollar expenditure and objective of AOSTRA, it seems that environment is a long way down the list. I wonder if the minister could comment on that, in terms of dollar projection, dollar costs on research in environment.

MR. LEITCH: Mr. Chairman, I wonder why the hon. Leader of the Opposition says it's an equal emphasis, because it appears in two separate paragraphs in the Act?

MR. R. SPEAKER: No, Mr. Chairman. I point out that the purposes of this Act are as follows, and it's got "a" and "b" listed. I make the assumption — and if the minister wishes to correct me, that's fine — that equal emphasis would be given to the research with regard to part "a" and to part "b". If the minister feels differently, I would like to know. And if the environment is to be neglected, we'll find that out too.

MR. NOTLEY: Let's find out.

MR. LEITCH: Well, Mr. Chairman, that is an interpretation of a piece of legislation that, I must say, sounds strange to my ears. We have all kinds of legislation where we list a number of purposes. But I don't know anyone, except perhaps the hon. Leader of the Opposition, who says the list must be treated as equal as to time, money and, I suppose, everything else one might do in connection with those objectives.

The Leader of the Opposition would be aware that we have another body involved in environmental research in

this area. I thought AOSTRA had stated very succinctly and very well in its five-year report that it's not doing environmental research generally, but rather is having regard to the environmental aspect of all the projects and processes it is working on. Now that's quite a different thing from getting engaged in the general field of environmental research with respect to development of the oil sands.

As to the dollar value, my memory is that in the annual reports and the five-year review, there is a listing of the contract value for these various contracts. As I mentioned earlier, the projects have an environmental component as an integral part of them. But I'm not at all sure that one can break down the cost of the project into amounts related to the environmental component and amounts related to other components. It's one integral project, and there will be an environmental component. But I'm sure it isn't segregated as to cost; it's simply part of the overall project.

MR. R. SPEAKER: Mr. Chairman, to the minister. Certainly I appreciate that that most likely is the general rule, and that kind of information is what we're here to find out. Are any new projects being contemplated in terms of environmental research by AOSTRA? Possibly the minister could comment on the projects for 1982. We're asked to approve a sum of money, some \$54 million. What portion of that expenditure would be in terms of environmental research, if any, or is that undefinable as well?

MR. LEITCH: Mr. Chairman, I don't have the details of any specific projects with respect to environmental research. Earlier I gave the breakdown of the \$54 million in general terms. The large bulk of it goes to the cost of projects that are ongoing and that are reported on in the annual report. They will contain an environmental component. In the breakdown I gave, there are also some unallocated funds in connection with the universities program, and these specific projects are generally contained within the university program. But as to any specific contracts that have been entered into or that they're contemplating entering into, I don't have that detailed information.

MR. R. SPEAKER: Mr. Chairman, to the minister. This was partly covered; it was mentioned, but I'm not sure in detail. It's with regard to the sulphur emission problems at Syncrude. That's an environmental problem. Does the Department of Environment have all that responsibility? Are some research projects contemplated in that area by AOSTRA, or is there no involvement at all?

[Mr. Purdy in the Chair]

MR. PAHL: Mr. Chairman, perhaps I might be able to supplement that answer. I want to move back to the question of the hon. Leader of the Opposition with respect to the supposed dual purpose of AOSTRA in terms of the environment. I'll just draw on his experience in this House and memory of the legislation. At the time AOSTRA was formed, also formed, as a result of the federal/provincial agreement, was the Alberta oil sands environmental research program. I had the privilege of being involved in that program during a number of its years.

Just to refresh the memories of members of the committee, this was back in the days of almost heaven, when

the federal government put up \$2 million annually, projected for a period of 10 years. Mind you, it was our money; part of the levy on oil was coming back to do environmental research in the oil sands. The federal government was going to put up \$2 million a year for 10 years; the provincial government was committed to put up a matching \$2 million for a further 10 years. Well, that amounts to \$4 million of environmental research each year for 10 years, or \$40 million. As was pointed out in this House by the Minister of Environment not too long ago, the federal government pulled out. They pulled out in the third year of the program, I think, without the required notice. They just packed up and left. So although they have made much of their involvement, that's the level of commitment our federal government has brought to the table.

Much to the credit of the minister and his research department, the Alberta oil sands environmental research program has been operating on a somewhat modest basis, and the Department of Environment, in my understanding, has picked up the long-term monitoring of the air and water quality: the things that would provide a base-line state for point of reference before you undertake any industrial activity. Perhaps it's also worth reminding members who are so keenly interested in this area tonight that there's a procedure you go through. First of all, you establish the base-line conditions in an area where you're contemplating industrial development. Then, you establish what the industrial development is going to be.

Members of the committee, that's the whole point of AOSTRA. It's a little bit premature, in terms of what is conveniently labelled environmental impact studies, to be studying impact before you know what the impact is. The AOSTRA effort is proceeding along several fronts, and it's not known where the breakthrough will be. It could be a breakthrough in the extension of the mining process, in terms of the hot water extraction process. It could very well be a dry extraction process where, rather than dealing with a gunky mess of tailings, you're dealing with dry tailings or sand. That has quite a different revegetation problem or environmental impact than the wet one.

Similarly, it's thought that there are two central problems with the *in situ* process. First and foremost is the vast amount of water required and the need to be able to clean up that water in an economic fashion, so that you can either reinject it into the boilers and back down into the formation, or return it to the surface water system. Those are known components, but they're also integral parts of the process technology. Similarly, the concern about air-borne emissions: when you undertake burning of nature's hydrocarbon garbage, as it's been called, a very, very complex set of reactions go on underground and throughout the extraction process. Those need to be defined and detailed, as much for environmental concerns as for the process itself.

I just wanted to supplement that background. There was a very extensive twin environmental effort, if you will, that went along at the outset of AOSTRA. It has been kept up to a limited degree by the Department of Environment. I suppose that if some breakthroughs by the AOSTRA research indicated that perhaps our emphasis should be not so much on the tailings ponds but on a dust problem created by a dry extraction process, then that would be one of those bench marks where the experts would make a decision as to where to place the effort.

I would like to assure members that in my understanding there is an environmental component in all of it.

There's an environmental research component in the continuing effort made by the Department of Environment under the old oil sands research program. As long-term research points itself in a direction that requires an impact to be studied or an assessment to be made of a process effluent on the environment, that's the point when you do more definitive environmental research, not as a matter of saying, okay, we're going to have to put 10 per cent into environment. That would seem to me a misplaced effort, thus the present strategy.

MR. NOTLEY: Mr. Chairman, the comments of the hon. Member for Edmonton Mill Woods raise certain additional questions in my mind. I think we're all aware of the old environmental joint project between the federal and provincial governments, the \$40 million project the member alluded to. When that project was announced, it was a fairly significant project. If my recollection is correct, it was announced either in 1974 or 1975, when \$40 million would go a good deal further.

What upsets me a little bit is the member's comment that we are carrying on with the project, albeit — perhaps I'm not entirely accurately paraphrasing him, but he used the words — in a modest way. Mr. Chairman, I think it would be useful if the Member for Edmonton Mill Woods would perhaps respond to the Member for Calgary Buffalo and the Leader of the Opposition in a little more specific way. Perhaps he's in a position to advise the committee what the total amounts of dollars are.

The reason I raise this is that we are looking at a project of very considerable public investment, some \$418 million over the next five years. But the initial investments in AOSTRA were \$100 million. That was the announcement initially. The initial announcement of this arrangement between the federal and provincial government on oil sands research was \$40 million, \$20 million of it to come from the export tax levy, a certain amount which would be rebated to the province, and \$20 million matched by the provincial government. So the initial bench mark, if we as members of the committee can measure it, was a significant investment in environmental concerns, and a significant investment in oil sands research and technology.

Now if that's the situation today, I have no concerns about it. But what concerns me a bit is that we are shifting the emphasis somewhat. I would just say to members of the committee that if we've learned from the oil sands experience, both with GCOS and Syncrude, and learned from the documents prepared by the department of the Minister of Environment as well as federal/provincial task forces, et cetera, it is that the ounce of prevention is worth a pound of cure.

I realize that the focus of the Oil Sands Technology and Research Authority is pretty clear: it's on technical breakthrough to develop the extraction of oil from the oil sands and heavy oil economically in this province. But in my view that is a lopsided commitment, unless we have an accompanying commitment from the Minister of Environment. I don't care who does it — I don't care whether it's done by another agency or by the Department of Environment — I think we must have a parallel commitment to environmental concerns. While I make the observation that I don't care who does it, there may well be an argument to bring both these important focuses under the purview of one authority rather than having it splintered. However well-meaning the Department of Environment or the Department of Energy and Natural Resources may be in their concerns, if we're

looking at the total picture of oil sands development technology, perhaps an umbrella of AOSTRA may well be the best way of examining all the implications, but especially the environmental implications.

So I wonder if the member would be able to give us some figures as to what the Department of Environment is in fact going to be spending over the next five years, and to what extent this budget contains a specific commitment to environmental expenditures.

MR. PAHL: Mr. Chairman, I'd be very pleased to respond to that question. I think the answer lies back when the two programs were formed. In those heady days of 1973-74, we were talking about an oil sands plant, a Syncrude plant, every two or three years. In that atmosphere, there was certainly a strong imperative to apply a great deal of funds to monitor, understand, and gauge the environmental impact of those activities. The last oil sands plant was approved in 1973; it was completed in 1978. The base-line states were fairly well established by AOSERP with respect to the environment. I think the level of expenditure was something in excess of \$10 million, and a lot of those dollars were spent when you could do something for that kind of money.

So the base-line states are established. Now we're into a condition of monitoring. That ongoing commitment is the domain and responsibility undertaken by the Department of Environment. Certainly the effort I outlined, that is being undertaken under AOSTRA funding this year on the vegetation survey, is relatively modest, and is also prefaced by the researcher saying that they know right now that the vegetation is not at risk. But the fact is, they want to be able to take another look at sensitive vegetation such as the mosses, jack pine, fiddle moss, and lichen; to establish what biomass would be lost if it was at risk.

In answer to the specific question, the level of effort has been scaled down with respect to environment because only the two plants were a fact, in terms of one being in operation and the other being built at the outset of the program. There haven't been additional plants, so there's no additional impact. On the other side of the coin, I think it's easily recognizable that the AOSTRA commitment will have to, because they're in the same game as building an oil sands plant that has moved from — Syncrude was built for something like \$2 billion; now we're talking \$13 billion. So I shouldn't think it should be a surprise to any member of this Assembly or to the public that if we were even to maintain a rather modest scale of effort in AOSTRA, we would be dealing with the same factor. In fact, the research would be more expensive per unit of activity than building the actual plant.

So to summarize the answer, the environment is in a holding pattern because you're simply dealing with a monitoring situation. AOSTRA, working in process, has to face the realities of escalating costs. Although I was not a member of the Assembly at the time AOSTRA was envisaged, I don't think any ceiling was put on the costs. I think the commitment was to say, let's plough back some of the money we're gaining from our non-renewable resource revenues into unlocking the difficult secrets of the tar sands to further those streams of benefits to Albertans and Canadians in the future. So I think it's a little unfair to raise a flag about escalating costs in the context of either absolute dollars or today's dollars.

MR. NOTLEY: We've got the arguments from the member as to why he hasn't got the figures, and frankly

what I would like to have is the figures. It seems to me that this committee should have the figures now. We know what the figures were in the past. It was \$40 million for a program for environmental research, complemented by \$100 million when AOSTRA was set up. I remember the discussion that took place in this Assembly at the time. Now I'm not sure whether or not that's the right kind of ratio. The member may well have an argument; perhaps we're in a holding pattern. Although I would say to the hon. Member for Edmonton Mill Woods that I'm not sure how valid an argument that is, when we are now contemplating at least the Alsands project, which would be a major project of massive size and very considerable environmental impact not only on Alberta but on our neighboring province of Saskatchewan as well. But I think it would be useful, Mr. Chairman, if we did have the figures.

I do welcome the comments the Member for Edmonton Mill Woods raised, however, because this takes me back to discussions in the House in 1973. There is no doubt that some good work has been done by AOSTRA, but I recall the great debate we had in the Legislature over the pace of development of the oil sands. I remember Mr. Getty, the Minister of Energy at the time, saying we were in a race against time with the oil shales in the United States. We had the Levy report, which suggested we'd have to have a project every two years. And we had Mr. Goyer, the federal minister of I'm not quite sure what at the time, suggesting that we should have 20 plants by the year 2000. In those heady days, we were literally going to be digging up almost everything we could get hold of in the Fort McMurray area. The facts of life have come back very clearly to convince everyone that a measured rate of development is absolutely essential.

Having said that, a measured rate of development, whether it is one plant in the next five years, one plant in the next decade, or a couple of plants in the next decade, does necessitate this committee having some accurate information on the commitments in the appropriations that we're making available this year to environmental research, in my judgment. We go right back to the question the hon. Member for Calgary Buffalo raised several days ago. Part of the mandate — we don't need to get into the argument whether it's 50, 10, or 20 per cent — is the environmental aspect, and in my submission at any rate, Mr. Chairman, we have to have as accurate a handle on what that means as we can, not only in specific projects but in dollar terms.

MR. LEITCH: Mr. Chairman, I would like to respond to the comments about environmental research funding and the question of sulphur emissions and Alsands, that have been raised by members of the committee. First, I should stress that considerable work has been done over the past years on the level of sulphur emissions from oil sands plants. I'm going from memory now, but my memory is that the anticipated sulphur emissions from the Alsands plant will be significantly less than the sulphur emissions from the Syncrude plant, despite the Alsands plant being substantially larger. The initial design capacity would be in the order of 137,000 barrels per day. The initial design capacity of Syncrude was approximately 109,000 barrels per day. Despite that substantially larger volume of production, my memory is that there's very significant reduction in the anticipated sulphur emissions from the Alsands plant.

The hon. Member for Spirit River-Fairview says, break out the environmental component of these various proj-

ects. Frankly, I don't know how that can be done. I'd simply call his attention to a project now under consideration, that's referred to on page 23 of the annual report for the year ended March 31, 1981, under heavy oil upgrading:

New processes have been proposed for upgrading bitumen and heavy oil, many of which have the potential to achieve the objectives of higher liquid yield and reduced environmental impact. However, before any of these are ready for commercial application in Alberta, their performance must be demonstrated on a scale sufficient to allow commercial performance to be predicted with confidence.

AOSTRA has initiated the first phase of a joint government/industry study to evaluate the technical and economic feasibility of a number of candidate processes that are in various stages of development.

The ultimate goal of this program, subject to our ability to identify promising new technology and the continued support of industry, is to construct and operate a large-scale plant to demonstrate the selected process.

This, Mr. Chairman, would be different from the oil sands extraction centre I was commenting on a few moments ago. That centre would relate to an examination or testing of processes to separate the oil from the sand. The plant I'm now talking about would be an upgrading or test facility to test new upgrading technologies in the field and in a pilot project. Those will have both an economic and an environmental component. The possible range of costs of such a project would be very large, from perhaps a couple of hundred million to as much as a billion. It would be a very large project, if it was considered advisable to proceed with it.

To separate out of that total project, what could be allocated to the environmental aspect of an improved process from the aspect that might result in a higher yield is, I think, just impractical, impossible. It's all one project. No doubt you could tie some components to environment and some components to a higher yield, but certainly the major part of the cost of the project is going to have to serve both purposes. It doesn't seem to me practical, in any project that has several objectives, to try to separate the costs. You have to have all the infrastructure and certain components of the project there, certainly the bulk of the components of the project in order to test [any] one of them. In the annual reports and the five year review, we have listed specific projects dealing with environmental studies and their cost. They would be quite a small component of the environmental costs, because certainly in an upgrading test project, the environmental aspects would be very significant.

MR. R. SPEAKER: Mr. Chairman, I want to go back to the purposes of the Act. One way we can determine whether an operation is successful or not is to look at the original objectives and see whether the original objectives are met. The second way is to assess the management procedures, whether the personnel are in place and able to continually monitor and assess a project, to see whether it's bringing about the results it started out to achieve. That's why we raise the questions we do at the present time.

I raised the question with regard to two of the purposes of this Act. Reading from the Act:

- The purposes of this Act are to provide means whereby
- (a) research into the technological methods re-

- quired for
- (i) the efficient and economic recovery and processing of crude bitumen and other oil sand products from the oil sands deposits . . .
 - (b) Research into technological methods required to ensure an acceptable quality of the environment during and after those recovering and processing operations, may be assisted, and encouraged and promoted.

When I examine the figures provided — and the hon. Minister of Energy and Natural Resources has admitted this, saying that the amount of money that is directly paid into research and itemized here is very small. I look at the projects listed; for example, one done by Dr. Hyne at the University of Calgary, \$138,000 I believe, another for \$91,000, another for \$117,000, one for \$65,000, one for \$16,000, and one for \$48,000. Now those are very small sums of money in terms of research. We're talking around \$500,000 to \$600,000, less than a million dollars. We think in terms of AOSTRA spending \$418 million. That's less than one per cent, a fifth of one per cent: a very small amount toward research specifically with regard to concern for the environment.

Why, then, do we ask the question: how much is in each of the programs? The minister says it's hard to determine how much of the money will be allocated to environmental research. What I can't understand, Mr. Chairman, is: if we're investing, I guess that's what we do in the Heritage Savings Trust Fund, \$54 million in the coming year, 1982-83, do we really know where it's going? As an opposition, do we have to take a position all the time, continuously, day after day, on item after item, that we've got to trust the government? Trust that they're spending it wisely.

Eighty-eight per cent of the Heritage Savings Trust Fund is dealt with by cabinet. We sit and trust them, trust that they invest it wisely. Somebody else may have confidence, but I can't have confidence in that. We must have the material. That's why I come to this Legislature, to see the facts of the situation. Here we have \$54 million more being requested, \$418 million to be allocated, and an objective of the legislation which I supported and passed in this Legislature with all good intent that we would know how the money was being spent, and here we find a situation where the minister can't determine what really is an environmental research component in these millions of dollars. Maybe we say we're satisfied it's less than one per cent; it's a minor objective. Maybe the government should admit, at this point in time, that the real objective is to get the oil out of the ground, get it sold, and get the revenue, so we can have a good-time government. Well, I think the objective should be a little different than that. That's one point.

MRS. CRIPPS: That's a phoney statement.

MR. R. SPEAKER: Well, stand up and refute it. Tell me the amount of money that's spent on environment research. Less than one per cent here for an objective in the legislation.

If you've done your research and can tell me something different, can advise the minister that it's more than that, great, I'm happy with that. But all I can find in the annual report, and I read that again this morning and the five-year report, is that less than one per cent is spent on research into the protecting environment as we develop our natural resources, our tar sands. If the government

can do better than that, can tell us what's better, then this is the committee in which we hear it. As backbenchers, I don't think you should sit and accept everything the guy on the front bench does. He has many things to do, a two-week trip planned to try to negotiate energy deals around the world, starting tomorrow at noon. If you can give some information and background and debate, and clarify the question at hand, we'd like the minister to get away. [interjections] Later, but not sooner.

When the minister can point where there are more dollars spent on that objective here in terms of research into the technological methods required to "ensure an acceptable quality of the environment during and after those recovering and processing operations", then if you can say it's less than 1 per cent, that's all you're doing, that's fine. We look at the new program the minister is talking about on page 23 of the 1981 report. An objective is stated, but in terms of environmental research, we don't know the cost. Part of the \$54 million we're going to approve in this Legislature will go toward that program. What is the amount?

If the backbenchers are just going to come, collect their pay cheque, and go home without asking these questions, satisfied that the guys on the front bench are doing a good job, why don't we adjourn the Legislature and let them run the government. [interjections] Call an election soon, so we can find out whether they're doing a good job. If the minister can explain it to my satisfaction. I'll consider whether he can go tomorrow. Otherwise, we'll have to stay and talk about it.

MR. COOKSON: Mr. Chairman, since the Member for Edmonton Mill Woods did such an excellent job of reviewing a program under Environment, and since there was some reflection on the fact that we perhaps weren't doing our best in the area of environment insofar as the tar sands are concerned, I thought I could review a few things for the Leader of the Opposition so there's no misunderstanding about the expenditure and the responsibilities in the area. It doesn't fall totally with the Minister of Energy and Natural Resources. It doesn't fall totally with the trust fund.

On October 29, I had an announcement which deals with the research program to develop monitoring techniques. To review it for the members:

In cooperation with . . . Energy and Natural Resources the Department is establishing permanent sample plots in the Athabasca oil sands area north-east of Fort McMurray.

Scientific investigations will be conducted on the plots to determine [primarily if there are any] changes in critical biological processes [which result from] emissions [in the area]. Researchers will attempt to relate these changes to . . . changes in the terrestrial ecosystem.

The resulting data should enable scientists to detect changes early enough to prevent any possible damage to the environment.

These are the base-line studies the Member for Edmonton Mill Woods referred to.

Information gathered during the program will also be used to establish criteria for emission standards, . . . planning . . . has involved discussions with scientists from the Universities of Calgary and Alberta, the Alberta Research Council and the . . . departments of Environment and Energy and Natural Resources. The . . . concept has been presented to industry and scientists in industry are being invited to

participate in developing the final program.

Perhaps while I make that comment on that announcement, it is often forgotten that industry itself becomes heavily involved in terms of environment and environmental protection. Not too long ago, I had the opportunity to visit the Syncrude project in the north, which is the largest project up there. While I was there, I visited our facilities, the Alberta oil sands environmental research project, and I'll be making recommendations with regard to further expenditure in the area which the federal government vacated.

Mr. Chairman, I think it's important to put on record for the public in general that industry does become heavily involved in research in environmental programs. I have a document in front of me, entitled Air Quality Management at Syncrude Canada Ltd. It reveals quite clearly some of the work the industry itself is doing as part of its responsibility toward the environment. Our responsibility in government is to set air quality standards for protection of the health and welfare of citizens, and to "maintain the quality of the province's air, and prevent harmful effects to the environment". Of course, it's Syncrude's responsibility to meet those requirements we set down:

The design of the Syncrude Mildred Lake plant includes equipment to control air pollution by sulphur dioxide, hydrocarbon vapours, and particulates.

Some figures were tossed out about the amount of sulphur handled in the bitumen heavy tar sand in the north. In terms of sulphur control, it's worth noting that each day "some 1375 tonnes of sulphur are contained in the bitumen which enters the upgrading process" in the Syncrude plant. Each day, this number of tonnes of sulphur have to be handled in one way or another. In '73, when the design was finalized, our own "calculations showed that the emission of 292 tonnes of SO₂", which would contain 146 tonnes of sulphur, "through Syncrude's 183 m tall stack would result in ground level SO₂ concentrations of 0.04 parts per million". Of course, that is "well within the provincial one-hour quality standard of 0.17 parts per million". So essentially the design, which I think the Minister of Energy and Natural Resources alluded to, shows there are "no more than 146 tonnes of sulphur per day" now released into the atmosphere.

The . . . crude oil which we produce must not contain more than about 19 tonnes of sulphur per day. . . the sulphur control systems are designed to remove at least 1210 tonnes of the 1375 tonnes . . . which enter the plant each day while releasing no more than 146 tonnes to the atmosphere.

That gives you an idea of the kind of operation functioning up there.

Insofar as hydrocarbon vapor control,

A variety of volatile hydrocarbons are used, or produced by, the extraction and upgrading process. The plant is designed so that venting or evaporation of these materials into the atmosphere [is] very small.

Highly volatile hydrocarbons, such as butane, are stored in pressure spheres or closed tanks while the less volatile oils are stored in floating roof tanks.

Insofar as the particulate emission control — these are the dusts, and so on, that find their way into the air — the plant has constructed and contains cyclones and electrostatic precipitators. These are the two main types of equipment that are used:

The gases from the cokers pass through . . . primary and secondary cyclones which centrifuge out most of the sand, coke, and fly ash before the coker

gases enter the CO [or carbon monoxide] boilers.

The electrostatic precipitators intercept over 95 per cent of the remaining particles before the gases escape into the main stack. It's interesting to note that because of the huge volume, the Syncrude plant is now looking at a way of possibly marketing carbon monoxide.

Insofar as air is concerned, the industry has set up its own interrelated monitoring systems for ground air testing. For example, emissions from the plant are measured at one-minute intervals by instruments installed in the main stack. These instruments measure the SO₂ — in particular concentrations, and the temperature and velocity of the emissions. All of this is then recorded by means of a centralized computer. There are five air monitoring systems around the plant itself at various distances up to 15 kilometres from the main stack. Each station measures the ground level concentration of both sulphur dioxide and hydrogen sulphide, and the wind direction and speed. All this material is recorded in a central computer system, and an accurate account of the actual emissions is made. There is a network of 40 static air quality monitors over a radius of about 15 kilometres from the main stack. So again, I think it's important that the public understand that the industry itself is heavily committed to making sure that the environment in the general area does not deteriorate in any way.

Information is written up in monthly reports, and a yearly summary comes to the province. In addition, any H₂S or SO₂ readings which are above provincial standards are verbally reported to the government within 24 hours, followed by written reports within 72 hours.

An interesting process is going on in terms of the biological effect of low concentrations of sulphate. The company is also undertaking a project of regular observations of the growth of two lichen species in each of 56 permanent plots. These are ranged in a radial pattern up to 35 kilometres from the plant and, since these particular types of plants are very sensitive to air pollutants such as SO₂, any evidence of damage or reduced growth should be visible long before such damage is really detectable in other vegetation.

The kind of sophisticated equipment we looked at is certainly very sensitive to both wind monitoring and the source of pollutants, although there is some trouble even there because the two plants are reasonably close together. Because of the direction of the air, they sometimes have some trouble detecting where the source of pollution may be coming from. In fact, it's a known thing that the monitoring system may be so sensitive that it's picking up some H₂S sources from swamp areas in the general area of the plant. I think I've mentioned before that that makes it very difficult in terms of legal action for us as a government or as monitors to verify the source of the pollutant.

The other document I would recommend to members is, again, work done by Syncrude. It's called Syncrude: A Panorama, and it essentially reviews some of the other work being done by Syncrude in terms of water management. For example, it outlines the preparation that took place first of all before stripping of the site ever commenced, and outlines one of the big problems they had with regard to the Beaver Creek diversion system. As we flew over it, I had a chance to look at that and the drainage work that was done there. They had a problem with erosion. The total cost simply for the water diversion was over \$35 million by the company. In addition, they constructed a long spillway into a stilling basin, which slows the water to a speed that would minimize any kind

of erosion.

The document goes on to talk about the way they're handling ground water disposal. I mention this again, so that there's no misunderstanding that a lot of environmental work isn't being done in the area, even though it may not all be attributable to government. A large portion of the work is being done by the company itself.

Insofar as water is concerned, in order to ensure that Syncrude's goal of creating an environmentally sound water management is met, continual monitoring programs are conducted. Both chemical and biological monitoring is being done routinely in the Beaver Creek diversion system, also in the Poplar Creek and the MacKay and Athabasca rivers. "Groundwater in the vicinity of the tailings pond is monitored by indications of changes in its quantity or quality through a series of piezometers." These are pieces of equipment drilled into the ground water system to measure the movement of water.

It was interesting to note that they have set up a device to minimize the risk of large flocks of migrating birds getting involved in the effluent which collects in the huge tailings pond, which continues to grow daily. While we were there, I think the statement was made that they had lost about 80 birds in 1981. They have set up a system of automatic firing devices which periodically pop off in different parts of the tailings pond, and keep the birds from deciding it's a pretty comfortable place to land. It is very effective and is certainly minimizing any losses. I imagine far more birds have died from lead poisoning as they migrate between north and south and from bodies of water that are low and develop poisonous algae, than would possibly ever be lost in the tailings pond.

Work is being done on reclamation, of course, and that's where my department is heavily involved. It's interesting to note that

Syncrude's reclamation objective is to produce stable plant communities which are at least as productive as those which occur naturally, and which are usable as forest cover, wildlife habitat, or for recreation.

They're working on reclaiming two types of disturbed areas:

those outside the mine pit, where the basic surface material is still intact, and the mine pit and tailings pond dykes where the surface materials have been removed.

We looked at some of the work being done. In 1980, "revegetation was mainly conducted using non-woody plant species". Then there were large-scale plantings of woody species "supplied by a greenhouse complex capable of providing about 400,000 seedling trees every year". They have their own operation at their own cost. "It is anticipated that reclaimed areas will initially have a grass-legume cover." Trees will be planted, and they'll "gradually compete with the herbaceous plants, gaining dominance in about 10 years". It's estimated that there should be "a relatively stable forest community in about 30 to 50 years". The eventual forest cover should be similar to the cover from which the area was stripped in the process.

It's admitted that during the mining process there will be a temporary loss of wildlife habitat. However, this revegetation will initially attract species which favor open vegetation. They list a number of birds, including the Savanna Sparrow, the Horned Lark, Lapland Longspur. Open-area predators such as the Marsh Hawk, the Red Tailed Hawk, and even the bear are expected to start to move back into the area as it recovers.

This document covers other areas that perhaps are not

pertinent to the discussion tonight, but I commend it to anyone. It talks about the community, the housing, the medical services, and so on, that Syncrude is undertaking for their employees. I would say it's an excellent document to review the responsibilities that industry undertakes.

MR. LEITCH: I would like to respond to some comments of the hon. Leader of the Opposition. I would commend to him a closer reading of the annual report and a re-examination of his calculations. As I followed him, he based his allotment to environmental research on \$418 million. If he would [peruse] page 10 of the annual report, he'll note that only \$177 million has been committed by AOSTRA.

I'd also draw to his attention that a number of projects listed in the annual report relate to the development of a dry process as opposed to the hot water process. That of course, Mr. Chairman, has a significant environmental component. If those tests prove that the processes are sound and should be put in place in substitution for the hot water process, to a large extent they eliminate the environmental problems we have with the tailings ponds.

The hon. Leader of the Opposition will note that the expenditures on some of those processes — for example, the Umatac process, referred to on page 21 — involve a cost commitment of \$5 million. As a matter of fact, Mr. Chairman, I suppose one could argue that the whole in situ program, which forms the bulk of the \$177 million committed to date, has a significant environmental component. If we find it is more economic to produce the deep sand rather than produce oil from the minable sand, we do away with the environmental problems with the mining. An argument can be made that the whole program has a significant environmental component. Certainly to break out those studies, particularly the ones being done by the universities, and deal specifically with environmental matters and say that is the environmental component of AOSTRA spending, totally ignores the very important environmental component of all the other projects.

MR. R. SPEAKER: Mr. Chairman, I appreciate the minister pointing out the \$177 million. Still, if the university projects are \$1 million or less, it's less than 1 per cent. That was the point I was making. The minister wasn't able to give detailed information in terms of what was happening. Sometimes you have to make statements that indicate that if you're not going to give the information, we're not going to get it, then I've got to accept what's here. The minister can say in a general sense that all these programs can be environmental research. Well, I have to take his word for that I guess. He wants me to approve \$54 million, and I don't know where it's really going to be allocated. It's broken down in large sums. If that's the way we run the Heritage Savings Trust Fund, no wonder \$60 million are lost. [interjections] Realized loss.

That's the point of this debate, the whole point. As we go through estimate after estimate, we find there's inadequate information. I did a summary of the first question period we had with the Minister of Energy and Natural Resources; the number of times the minister was saying, I don't know, I have to get the information, we'll have to wait till next time, it'll take three weeks. That's how much real, intensive research and attentiveness is being given by the ministers in terms of Heritage Savings Trust Fund expenditures.

As we go down the line in other areas, I'm sure we're

going to find the the very same thing. They know the money is being spent somewhere out there. Trust us, we'll look after it. But we can't do that any more in this Legislature. If the investments aren't paying off, if we've got losses in one area, then we'd better check the other areas. That's what we're doing. We're going to stand, and we're going to ask questions.

The one document we want in this Legislature is from the Provincial Treasurer. If the Minister of Energy and Natural Resources would like to get the Provincial Treasurer to table those three documents so we can know the root cause of a loss of \$60 million, a realized loss of \$60 million, then we'll slow down on the questions. [interjections] But if the minister or the House Leader isn't willing to go out and get that information so we have better detail about the losses, then we have to carry on until they decide it's time for them to give it, if they want to do it on their own time. [interjections]

That's good, that's great. We'd appreciate that very much. A little dirt on your hands wouldn't hurt, hon. Minister of Federal and Intergovernmental Affairs.

Mr. Chairman, the point I want to make to the minister is that all we are asking for is details. If details can be provided, if we know the ministers are on top of their jobs, that's great, that's impressive. I'm sure the press want to watch the ministers in action and show that this government's accountable and responsible. It's good that we ask the questions. I must say I've learned an awful lot about AOSTRA that I didn't know before, and that other members in this Legislature have as well. But possibly at this time we have to accept that the minister doesn't know all the expenditures in environment.

The Minister of Environment gave us a good explanation of the things being done with sulphur releases. I tried to imagine how many truckloads of grain — some 146 tonnes of sulphur leaving Alberta every day and moving over towards Saskatchewan. I really thought that was a plot. The Conservatives are a little behind over in Saskatchewan, maybe give them a little sulphur over there and change their attitude.

But one thing the minister didn't tell us was how many dollars are going towards that kind of environmental research. I think that's the thing we're interested in. If the minister could maybe comment on the dollar value of that research, then we'd have an indicator that the Minis-

ter of Energy and Natural Resources is getting good support from it.

MR. COOK: Mr. Chairman, I wonder if I could just ask a question of the member. Since we have had a realized gain today of \$100 million, would he be willing to extend the filibuster. Obviously he's in dire straits and needs to learn more. He's pointed out that he's learned a great deal about AOSTRA, and so have we all. But I'd be glad to sit here till Christmas learning about AOSTRA and all sorts of other things, in the hope that interest rates drop again and we have another realized gain of another \$100 million. I'd just like to ask the member if he'd like to extend the filibuster, so we could all learn some more and also have some more realized gains.

MR. R. SPEAKER: Mr. Chairman, in response to the question, I would like some more time, because on precedent and on convention I've learned not to trust the figures of the hon. member, and I'd like to check it first. So we'll continue.

MR. CRAWFORD: Mr. Chairman, I move that the committee rise, report progress, and ask leave to sit again.

[Motion carried]

[Mr. Speaker in the Chair]

MR. PURDY: Mr. Speaker, the Committee has had under consideration certain resolutions, reports progress thereon, and begs leave to sit again.

MR. SPEAKER: Does the Assembly agree with the report and the request for leave to sit again?

HON. MEMBERS: Agreed.

MR. CRAWFORD: Mr. Speaker, tomorrow it's intended to give second reading to Bill No. 69.

[At 10:23 p.m., on motion, the House adjourned to Friday at 10 a.m.]