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# Standing Committee on Environment and Sustainable Development

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**Thursday, June 11, 2009**

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**Chair**

**Mr. James Bezan**

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## Standing Committee on Environment and Sustainable Development

Thursday, June 11, 2009

• (0905)

[English]

**The Chair (Mr. James Bezan (Selkirk—Interlake, CPC)):** I call to order meeting 27 of the Standing Committee on Environment and Sustainable Development.

We're joined today by two individuals, Dr. John O'Connor, and by video conference we have Andrew Nikiforuk. Welcome to both of you.

I ask that your opening comments be less than 10 minutes. We'll start off with you, Dr. O'Connor.

**Dr. John O'Connor (Physician, As an Individual):** Thank you very much, Mr. Chairman.

Honourable members, I'm very honoured to be here today and very glad of the opportunity to present my concerns about Fort Chipewyan. My name is John O'Connor, and I'm a family physician currently based in Nova Scotia. My practice is divided between Nova Scotia and northern Alberta.

Since 2001 I've been providing primary care services to Fort Chipewyan, which is a community about an hour's flight north of Fort McMurray, population 1,200, situated on the west end of the northern shore of Lake Athabasca. It's a very beautiful community, far off the beaten track, right on the edge of the Canadian Shield. When I came to the community initially I was told that to be accepted I had to gain the respect and trust of the elders. So I sat for hours and hours listening to them talk, and they're very articulate and eloquent. They told me about their concerns for their community. They told me about their past and their traditions; 80%-plus of the community subsist on traditional ways, so they hunt, fish, gather, and trap.

They talked about what they used to do, often spending days on the lake and on the river fishing, able to scoop water out of the lake and drink it, often spending two to three days on some of the many islands on the lake, boiling water for tea and soup, etc. They also talked about the plentiful fish and ducks, and especially muskrat. People who don't have a lot of money definitely use what they can from the land and no more than that.

They also described how things have changed in recent years, how the water quality had changed. They kept getting back to that: the water had a constant film of oil on it. Often the muskrat they looked for, they could not find, the population dwindling, and they would often find them dead in their lairs. As they skinned them they noticed the flesh was red, and as they said, it looked as if they'd been poisoned. The duck population had diminished. The most curious of

all was their description of the changes in the fish and the increasing numbers of fish being pulled from the lake with tumours, deformities, crooked fins, missing parts, crooked spines, and bulging eyes. They would frequently also say that the fish tasted oily, and it wouldn't be fit for consumption.

So that was my background when I arrived in the community. I documented in my time there diagnoses that had been made prior to my arriving in the community, and in the years I was in the community I noticed a very strange situation seemed to be happening. I had a population of about 9,000 patients in my practice in Fort McMurray at the time. So I constantly compared the 1,200 people in Fort Chip with my 9,000 or so in Fort McMurray, and I really wasn't seeing anything of the types of illnesses or the numbers of illnesses that I was seeing....

The one that scared me the most was this cholangiocarcinoma. My father passed away in Ireland in 1993 from this illness. It occurs at a frequency of approximately 1 in 100,000. It's a very aggressive, nasty cancer. It's very difficult to diagnose, and often by the time it is diagnosed, it's too late. The treatment of it itself is almost as bad as the illness, and it is frequently just a palliative procedure.

The other illnesses, both malignant and non-malignant, were, in my experience and in discussions with colleagues in Fort McMurray, unusual, to say the least, for such a small population. I asked a simple question: was I seeing in this community something that was related to the lifestyle? Could it be a genetics issue? Was it simply bad luck? Or could it possibly have been linked to the environmental changes that were very real in the minds of people in Fort Chip?

The community was approached by Health Canada in April of 2006, and one of the very first actions of one of the physicians coming into the community was to come into the nursing station, fill his mouth with tap water, take a big swig, and turn to the *Globe and Mail* reporter and say, "There's nothing wrong with the water here in Fort Chip." This was an insult. It triggered a lot of anger in the community.

They went on to say they were going to do a study of illnesses in the community, and they took boxes of deceased files to Edmonton. They told us we wouldn't see them until September.

●(0910)

About six weeks later they arrived back, telling us that everything was fine. They had actually given the information to the Alberta Energy and Utilities Board in Fort McMurray the week before, because that board was being asked questions about any potential health impacts of ongoing tar sands mining. The community was flabbergasted at this. Independent analysis of their findings at that time pointed out that actually what they found showed a 29% higher rate of cancer. The government did not accept this.

They also talked about arsenic and asked the community to send samples of moose meat and bulrushes to Edmonton for analysis. The community had actually heard about this in the newspapers in Fort McMurray a few days before, because industry had warned that arsenic might climb to about 500 times the upper limit of what's considered acceptable. At this point, the community did not trust that the government would come up with anything.

Nevertheless, a few months later samples were sent out for analysis, and of course they came back showing that the levels of arsenic were between 17 and 33 times the upper limit of normal, not 500. This was supposed to be a reassurance for the community.

In 2007 I got a large envelope in the mail from the College of Physicians and Surgeons in Edmonton, and it was not a gift. It was a list of complaints that Health Canada had laid about my activities in Fort Chip. They accused me of blocking access to files, billing irregularities, engendering a sense of mistrust in government in Fort Chip, and causing undue alarm in the community.

I responded to all of these charges, and the College of Physicians gave me the all-clear. A few weeks later the registrar of the college wrote to me saying that the issue of raising undue alarm still wasn't cleared, so I've actually been battling that since then.

In November of 2007, a few months later, Dr. Kevin Timoney, an ecologist in Edmonton, presented a study that he'd been commissioned to do by Fort Chip about their environment. It showed appalling levels of arsenic, mercury, and PAHs, on a par with or greater than what was found off the coast of Alaska after the *Exxon Valdez* went down. Ongoing analysis shows clearly that these chemicals, these toxins, have an industrial fingerprint. I'm not a scientist; I've read lots about what's documented, much of which comes from Alberta and federal government documentation.

The community has several times—probably four or five times—publicly proclaimed and written to Health Canada and the College of Physicians to tell them that they were never consulted about undue alarm and that they were never consulted, period. They've asked that this charge be withdrawn. They've actually asked Health Canada to fire their senior physician, who was in charge of all this, and this is all completely unsolicited by me. The Alberta Medical Association came out unanimously in support of my activity, saying that I have the right to be a patient advocate, which is all I'm doing.

In February of 2008 the Alberta Cancer Board started a cancer study of the community, a much more comprehensive study. They released their findings in 2009. The preamble told the community that the government had been wrong in 2006 to give the community the all-clear, that there was actually a 30% higher rate of cancer and, in some areas, rare cancers. They suggested ongoing monitoring

over the next 5 to 10 years. The community is not accepting of this idea.

At this point, my feeling is that there's been enough evidence accumulated. We know the toxins identified in the environment in and around Fort Chip can cause the illnesses that are occurring in the community. There's been enough scientific discussion and agreement with what's going on. Surely, surely, it's now time—and I believe it's way beyond time—to do a comprehensive health study in this community.

I'm here purely as a simple family physician and a patient advocate. My only concern is the health of this community. I'm not a radical; I am, I guess, an activist now. I'm not political, although I've been accused of it. I'll carry whatever label you want to put on me. I'm a patient advocate, and I will be to the end, and I'm going to see this through no matter what it takes.

Thank you very much.

**The Chair:** Thank you, Dr. O'Connor. We appreciate those comments.

Mr. Nikiforuk, could you join us now and give us your opening comments?

**Mr. Andrew Nikiforuk (Author, As an Individual):** Thank you very much for the invitation.

I have written about oil and gas issues in Alberta for more than twenty years, and I am the author of *Tar Sands: Dirty Oil and the Future of a Continent*.

The tar sands, arguably the world's largest energy project, clearly illustrate the troubling nexus between energy and water. It takes water to produce energy, and it takes energy to move, pump, and treat water. Bitumen, a difficult and dirty hydrocarbon, requires more water for its production and upgrading than conventional light oil. As such, its water intensity signals the end of cheap oil as we know it. The bitumen mining process also creates unsustainable volumes of waste water, and I know the committee has heard much about this practice. The rapid and irresponsible development of Alberta's vast bitumen deposits has created several critical problems that I believe are diminishing Canada's reputation both at home and abroad.

Today I wish to draw to the House's attention four areas of concern: the creation of an acid rain problem in Western Canada, the problematic recycling of tailings water, the uncertain state of groundwater in bitumen-producing zones, and the case of Dr. John O'Connor.

Acid rain was once thought to be an environmental concern that only affected eastern Canada, but a 2008 paper by the air quality research division of Environment Canada predicted that some parts of western Canada in the vicinity of large SO<sub>2</sub> sources, such as the tar sands or Fort McMurray, were already exceeding critical loads for acid rain. A critical load is an estimate of how much sulphur or nitrogen pollution a tree or lake can absorb before it damages or kills it.

The report called this prediction a concern because the release of acidifying emissions is projected to increase in the next decade in the tar sands. According to Alberta Environment, the province's oil and gas industry now produces a third of the nation's nitrogen oxide emissions and nearly a quarter of its sulphur oxide emissions. These two pollutants make acid rain.

By 2010, the province will produce more acidifying pollutants than any other part of Canada. Most of these emissions will blow into Saskatchewan. These pollutants, which can poison and sterilize forest soils, have already reached critical levels in Alberta and Saskatchewan. According to a 2008 report for the Canadian Council of Ministers of the Environment, upland forest soils downwind of the tar sands currently receive acid deposition levels greater than their long-term critical load. In other words, pollution from upgraders and steam plants is now damaging lakes and soils throughout western Canada.

In 2008 Julian Aherne, a researcher at Trent University, reported to the Canadian Council of Ministers of the Environment that nearly 10% of Alberta's mapped forest soils received acid deposition in excess of critical load. Last year a Saskatchewan study of 148 lakes within a 300-kilometre radius of the tar sands identified that the majority of these assessed lakes were sensitive or highly sensitive to acid rain.

Given these findings and predicted increases in acid emissions from the tar sands, why has Environment Canada not made western Canada's new acid rain problem a national priority? Why didn't the federal government set up a special agency, perhaps modelled after California's successful Air Resources Board, to manage both air pollutants and greenhouse gas emissions from the tar sands?

The committee has heard much about the unsustainable growth of tailings ponds for bitumen mining operations. They are among the world's largest impoundments of toxic waste. According to Alberta's Energy Resources and Conservation Board, these dams now occupy 120 square kilometres of forest land north of Fort McMurray.

Industry and government officials routinely defend their presence by arguing that 80% of the waste water is being recycled. What they fail to add is that the continuous recycling of tailing waste has concentrated pollutants in the water and made a bad problem much worse. According to a 2008 report by Eric Allen of Natural Resources Canada, the recycling of tailings water has increased the salinity of the ponds by 75 milligrams per litre since 1980.

● (0915)

Recent increases in hardness, sulphate, chloride, and ammonia have raised concerns about the corrosion of equipment used for bitumen extraction. Toxic chemicals of concern, of course, in the ponds include naphthenic acids, bitumen, ammonia, sulphate,

chloride, aromatic hydrocarbons and trace metals such as arsenic and mercury. In other words, the recycling of tailings water has increased its toxicity, which in turn poses challenges for bitumen extraction, water consumption, and the reclamation of tailings ponds. The paper strongly suggests that all wastewater in the ponds be properly treated.

Steam plants, or steam-assisted gravity drainage, or in situ technology, typically heat up bitumen deposits to 240 degrees Celsius. They have the potential to impact groundwater over an area the size of Florida. In 1973, a report by the Alberta Research Council on the environmental impact of in situ technology recommended constant monitoring to prevent contamination of the groundwater supplies, which may be needed for domestic or industrial purposes. This wasn't done. Many steam plants now operate in an area south of Fort McMurray that is home to one of North America's largest freshwater aquifers, the Wiau Channel.

Neglect of groundwater, like the neglect of surface water in the Fort McMurray region, has been a persistent part of rapid tar sands development. In fact, the Alberta Energy Resources Conservation Board and Alberta Environment didn't release a draft directive on requirements for water measurement, reporting, and use for thermal in situ oil sands schemes until February of 2009. Last month the Council of Canadian Academies released an exhaustive report on the state of groundwater in Canada. A pointed section on the tar sands found regional mapping remained incomplete, that information collected by regulators was inconsistent, and that there was little or no data on cumulative effects of saline withdrawals for the steam plants.

For the record, it takes approximately three barrels of groundwater, fresh or saline, to make one barrel of bitumen. The report concluded that knowledge is lacking as to whether the aquifers of the Athabaskan oil sands region can sustain these groundwater demands and losses.

Last but not least, the case of Dr. John O'Connor raises serious questions about the state of water in the region as well as the dysfunctional nature of Canada's new petro state. Dr. O'Connor, a family physician, worked downstream from the world's largest energy project in Fort Chipewyan for nearly eight years. In 2006, he naively asked some valid questions about the number of rare cancers he uncovered in that aboriginal community. He did not point blame at the tar sands. He did not point blame at the pulp mills on the river. He did not point blame at agricultural run-off. He did not point blame at the abandoned uranium mines on Lake Athabaska. He merely asked for a proper health study.

Nevertheless, representatives of Health Canada, supported by representatives of Environment Canada and Alberta Health have accused this physician of causing undue alarm in the community. They threatened to take away his medical licence by filing a complaint through the College of Physicians and Surgeons of Alberta. For representatives of Health Canada to use a patient complaint process to vilify and persecute a family physician who simply advocated for his patients remains an unprecedented abuse of power in Canada.

This year, the Alberta Cancer Board vindicated Dr. John O'Connor. This study confirmed lymphoma and rare blood and bile duct cancers in the community. It also reported a 30% higher rate of cancers in the community in general than expected, yet Health Canada continues to shamefully persecute this physician and sully Canada's international reputation as a fair and democratic country.

Dr. O'Connor's story is now the subject of three separate international documentaries and scores of stories in the international press. It should be the subject of a public investigation by the Canadian Parliament.

Thank you.

● (0920)

**The Chair:** Thank you, Mr. Nikiforuk, and thanks also for staying under your 10 minutes.

With that, Mr. Scarpaleggia, can you kick us off on the seven-minute round?

**Mr. Francis Scarpaleggia (Lac-Saint-Louis, Lib.):** Yes. There's a lot of information that has been presented to us. It's hard to know where to start.

Mr. Nikiforuk, you say that Health Canada's complaint against Dr. O'Connor is unprecedented. Are there similar cases where governments have lodged complaints against, say, for example, scientists, within government itself or outside of government? It's a strong claim, unprecedented. It sounds as if it probably is, but are you basing this on a knowledge of the history of complaints that have been brought against physicians?

● (0925)

**Mr. Andrew Nikiforuk:** I know of no other case in which you have three government agencies using a patient complaint process to accuse a family physician of causing undue alarm in a community, and that's the central charge. I know of no other case like that. I think this would be a fair question to ask also of the College of Physicians and Surgeons. From what I've heard off the record, from members of the medical community, this is totally unprecedented.

**Mr. Francis Scarpaleggia:** You speak in your book about the RAMP process. And you speak about the evaluation that I think Dr. Rosenberg and Dr. Ayles did five years ago of the RAMP process. They uncovered methodological flaws and so on and so forth. To your knowledge, has the RAMP process since been improved? Is it time for another evaluation of the RAMP process? Whenever we talk about water quality and quantity, we're referred, essentially, to RAMP and their studies. Is there someone doing another evaluation? Should there be someone doing another evaluation? Who should be doing it? Is it something the federal government could legally do, for example?

**Mr. Andrew Nikiforuk:** Yes, I would strongly recommend that the federal government do another analysis of the RAMP process to determine whether it is truly an effective process at this point in time. The 2004 review found so many flaws in how this program had been set up, and found huge gaps in baseline data, and found huge inadequacies in the monitoring.... Many of these inadequacies were later confirmed by RAMP's own technical review committee in 2005 or 2006. There needs to be some independent oversight.

I can't think of very many countries in the world where they would set up the world's largest energy project and would just assume that industry could somehow self-monitor in terms of water quality and quantity. For a country like Canada, I think that's unacceptable.

**Mr. Francis Scarpaleggia:** We speak a lot these days of carbon capture and storage. Do you know if that could possibly impact on aquifers in the future, maybe saline aquifers? Should we be careful to study what the impact of carbon capture and storage would be on groundwater around the oil sands?

**Mr. Andrew Nikiforuk:** That's a very good question, and I don't think anyone has any answers to that question at this point in time. There certainly has been a fair amount of testimony recently in the United States and concern about U.S. drinking water and how capturing carbon and putting it in deep saline aquifers might impact groundwater over time. It is an area that requires serious investigation.

Another area of critical interest, in terms of water and carbon capture and storage, is related to the fact that carbon capture and storage is largely a technology that has been designed for coal-fired plants. It will require 30% more energy to capture that carbon and store it. If coal-fired plants are using and burning more coal and using more energy to do this, they will require more water for cooling. So there are implications for water.

**Mr. Francis Scarpaleggia:** You mentioned that the recycling of water from the bitumen washing process is causing the level of toxicity of the tailings ponds to increase, as I understand it.

● (0930)

**Mr. Andrew Nikiforuk:** That's correct.

**Mr. Francis Scarpaleggia:** You said that, therefore, these tailings ponds should be properly treated, or this is what Mr. Allen said in a recent paper, which you quoted. Is there technology to do that augmented level of treatment, or is that still in the experimental phase? In other words, does the technology exist but it is not being applied? Or is it a case of the technology still being experimental?

**Mr. Andrew Nikiforuk:** No, I think there are a variety of water treatment technologies available that could be used effectively to clean this water in the tailings ponds. I think the big issue has been cost.

**Mr. Francis Scarpaleggia:** Dr. O'Connor, if I may go to you, it's interesting to me, as I found out, that you haven't pointed to the oil sands in terms of the damage to the health of the people of Fort Chipewyan. Did I understand correctly that you're not pointing blame at any particular project? That's what Mr. Nikiforuk seemed to be saying.

**Dr. John O'Connor:** I've said again and again that I am just a simple family physician.

**Mr. Francis Scarpaleggia:** Could you run through the various studies that have been done? It's getting very confusing for us. We've had people from Health Canada here, and we've heard about the Alberta Cancer Board study. How many studies have been done? You say a comprehensive health study is required. Is that what the Alberta Cancer Board is going to be doing? Are they not going to be doing enough?

How could it be that the Alberta Cancer Board says there's a problem, that the cancers depart from expectation, yet they don't propose to do a comprehensive study? What do you mean by a "comprehensive study", and who should be doing this?

**Dr. John O'Connor:** There are two questions there.

First, on the studies that were done, there was the 2006 deceased-file analysis, which was incomplete. Alberta Health and Health Canada confirmed that. It didn't have complete data, yet they went ahead and gave the community the all-clear. The Alberta Cancer Board, out of the blue, in February 2008 launched a comprehensive cancer study, which I guess was more in-depth; it took a year to do. They concluded in February 2009 that the 2006 study was wrong to give the community the all-clear. In fact, there is a 30% higher rate of cancer in the community. Their terms of reference did not allow them to go beyond that, and their recommendation was for at least ongoing monitoring for the next five to ten years.

The other issue is that a comprehensive health study was actually suggested back in the late 1980s, early 1990s for the very first time, from what I can gather, by scientists who were asked to contribute to the northern river basins study. Andrew would probably know more about this than I do.

I believe at least a couple of times since then.... When I came into the community and saw what I was finding, I was quite concerned. I joined what I didn't realize then was a chorus of people calling for a comprehensive—we were calling it a baseline—health study. In fact, that opportunity is long gone, because we don't have anything near the baseline.

There is no plan, as far as I know, to do any further studies in the community, whether they're cancer related or an overall analysis of the current health of the community. I can't explain why. It's very puzzling.

**The Chair:** Your time has expired.

Mr. Warawa, on a point of order.

**Mr. Mark Warawa (Langley, CPC):** I didn't want to interrupt the dialogue, but Mr. Scarpaleggia misquoted the study when he said there was no recommendation for further study. In fact, the conclusion said,

Further investigation is required to evaluate if there is a risk posed by living in Fort Chipewyan. This would be done by tracking a cohort of residents who have lived in the area within the past 20 to 30 years.

As part of an overall assessment of the health status of the community, further analysis should also be done of [the] potential risk factors, such as [lifestyles], family history and occupational and environmental exposure.

In fact they did, and I wanted to clarify the record.

**Mr. Francis Scarpaleggia:** That's useful, Mr. Chair.

I raised that as a question, and I was looking for the answer. Apparently, Dr. O'Connor says it's not sufficient in terms of a comprehensive study.

● (0935)

**The Chair:** I think we're into debate here, but I appreciate having the exact quote on the record.

Monsieur Ouellet.

[Translation]

**Mr. Christian Ouellet (Brome—Missisquoi, BQ):** Thank you, Mr. Chairman.

Mr. Nikiforuk, I have several questions to ask you and I would like you to give me brief answers because we have little time.

The oil companies always state that they only draw 1% of the water from the Athabasca River. Have you been able to verify the accuracy of that statement?

[English]

**Mr. Andrew Nikiforuk:** The 1% figure is probably accurate for annual flow, but the critical time period is really the winter flow of the river. I think David Schindler has addressed the issue of company withdrawals then being somewhere between 7% and 9% of the flow of the river. That's the critical period, and that's the critical issue for water withdrawals on the Athabasca River—it's during wintertime.

[Translation]

**Mr. Christian Ouellet:** Thank you.

I have a twofold question to ask you. Do the upgraders that refine the bitumen from the oil sands emit more or less greenhouse gas than those that refine conventional light crude? Do the oil sands upgraders use more oil in order to refine, which would make them heavier polluters, in terms of water, than light crude refineries?

[English]

**Mr. Andrew Nikiforuk:** The refining of bitumen is a two-stage process. Number one, you have to upgrade the resource, so you have to take some of the carbon out of it and you have to add hydrogen to it. That's known as upgrading, and there are several upgraders in the Fort McMurray region, and, yes, they are primary sources of acidic emissions.

Once you've refined the bitumen you have a product called synthetic crude. That product then needs to go through a complex refinery where you have to deal with the acids, the sulphur, and heavy metals in the synthetic crude.

So it's a two-stage process. Light oil is only a one-stage process. So, yes, we are looking at two to three times more air pollution than you would if you were refining light oil.

[Translation]

**Mr. Christian Ouellet:** And what about the water?

[English]

**Mr. Andrew Nikiforuk:** Yes, and therefore you are using more water. But I cannot give you the exact figures for how much more water is used in the upgrading process and then in the refinery process. But the upgrading and refining of bitumen is water intensive too.

[Translation]

**Mr. Christian Ouellet:** Mr. Nikiforuk, I have heard that tetachlorides and benzenes can pollute a body of water with as little as one part per million of benzene to water. Do you believe that could happen in the water table or in a river?

[English]

**Mr. Andrew Nikiforuk:** My understanding is yes, it could occur.

[Translation]

**Mr. Christian Ouellet:** This is an area you know well. Have you ever heard of a pipeline failure in Canada that would have resulted in crude oil spills?

[English]

**Mr. Andrew Nikiforuk:** Pipeline breaks are a regular occurrence throughout the province. Accidents happen in the oil patch all the time. Some of them are due to corrosion, some due to machinery bumping into pipelines—there are lots of reasons why pipelines fail.

There have been a number of pipeline failures in the Fort McMurray region. I don't believe they've been well documented and I don't believe the information is as transparent as it should be.

[Translation]

**Mr. Christian Ouellet:** Let's take it from there. We export virtually millions of barrels per day of water to the United States through pipelines. I will quote you, and I would like to hear your comments afterwards. You said the following:

• (0940)

[English]

The pipelines will determine the nation's economic future by accelerating the pace of tar sands exploitation and liquidation. This will also return Canada to its roots as a provider of raw, undervalued staples. ...the export of 400,000 barrels per day represents...eighteen thousand jobs.

[Translation]

Why do you believe that the export of crude oil to the United States makes Canada lose jobs?

[English]

**Mr. Andrew Nikiforuk:** I'm talking specifically about the export of bitumen. About 60% of the oil we now export is synthetic crude, which then will be refined in the United States. The other 40% is raw bitumen. So it will then be both upgraded and refined in the United States.

When you export raw bitumen you have said you are not going to be responsible for upgrading and adding value to this resource here in Canada. According to studies done by the Alberta Federation of Labour and by the paperworkers' union, the export of 400,000

barrels a day of bitumen is equivalent to exporting 18,000 jobs in the upgrading and refining industry in Canada.

Given the lack of public policy on this issue, Canada now faces the prospect that it will become an exporter of raw bitumen, primarily raw bitumen, to the United States. In that process we'll be exporting jobs, and these jobs will be created at refineries throughout the United States as opposed to refineries here in Canada. That is a critical public policy issue.

[Translation]

**Mr. Christian Ouellet:** Mr. Nikiforuk, why do you say that the Canadian crude market from the oil sands will decrease from 36% to 29%? You also said that elsewhere. Why do you think that Enbridge is in the process of developing a pipeline towards Montreal and Portland, if that is not financially profitable?

[English]

**Mr. Andrew Nikiforuk:** I can't give you a good answer to that question. I'm not familiar with that issue.

**The Chair:** The time is finished.

Ms. Duncan, the floor is yours.

**Ms. Linda Duncan (Edmonton—Strathcona, NDP):** Thank you both, Andrew Nikiforuk and Dr. O'Connor. I would also like to give greetings on behalf of our committee to Mrs. O'Connor, who, I understand, has worked in the clinic with Dr. O'Connor. We appreciate her coming all the way here as well.

Dr. O'Connor, you've answered a number of the questions already of fellow members of the committee, but I'm wondering whether you could elaborate a bit more on what has and has not been done yet in studying the potential health impacts.

I'm advised that in January 2008 the Athabasca Chipewyan First Nation petitioned the federal commissioner for sustainable development and raised concerns about the water and sediment contamination downstream from the tar sands facilities and concerns about how the contaminants may or may not affect our health. They called for peer-reviewed toxicological study of the effects of exposure to toxins in the communities in the lower Athabasca River region.

What is your opinion of this? Do you feel that the studies that have been undertaken by the Alberta Cancer Board fulfill the need, or would additional work need to be done to do a full, peer-reviewed toxicological study?

**Dr. John O'Connor:** That study followed Dr. Timoney's presentation in November 2007 to the community, with his documentation of the toxins that his analysis had detected. Dr. Timoney's presentation to the community was followed, probably a day or two later, by Health Canada's advising the community that pregnant women and children should not eat fish from the lake or the river, and that anybody else should do so more than once a week only at their own risk. They also warned the community to pull their kids from the water.



The lake is their recreation ground, their playground. There is nothing else really to do in Fort Chip. Their hockey arena is almost rebuilt after collapsing a few years ago, but generations have played in the lake. That was a major shock, and it was more or less parallel with the community's being told that there was no problem. So you can't eat the fish, you can't play in the water, but there is no problem.

I think their call for a study is absolutely spot on, and to my knowledge, there has been nothing done about it. The Alberta Cancer Board suggestions are very useful, but within their terms of reference they didn't and couldn't touch on possible etiologies of the cancers they had identified in the community.

● (0945)

**Ms. Linda Duncan:** What would be involved in a peer-reviewed toxicological study?

**Dr. John O'Connor:** That is a good question. I would imagine, and I think Andrew would probably be able to add to this, that it would involve including what has already been documented by the likes of Dr. Timoney and Dr. David Schindler from the University of Alberta. It would also need a fairly in-depth analysis of the traditional foods that the people in Fort Chip subsist on, and a fairly substantial and credible biological monitoring system, set up not just with people living in the community but with people who have lived there most of their lives and have left within an agreed period of time to live elsewhere. Typically they would move south to Fort McMurray.

**Ms. Linda Duncan:** I was advised just this past week by the parliamentary secretary for Health Canada, in response to an earlier question that I had asked of the minister, that the department in the last few weeks has travelled to Fort Chipewyan and has undertaken that it may undertake some kind of health study.

Have you, as their community physician, been consulted, and would you have any advice for them, if Health Canada approached you on how that study might be undertaken?

**Dr. John O'Connor:** I was aware that there was a visit planned, chiefly by Alberta Health Services, I believe, with some representation in one form or other from Health Canada. The meeting has taken place. The issues laid before the health board in the community basically involved their being asked what they thought the next step should be.

I was asked to contribute to a possible proposal from Fort Chip. Of course, at very short notice it is very difficult to do it justice. The meeting has taken place, and I believe Fort Chip is waiting for a response to their re-request for commencement of a comprehensive health study.

**Ms. Linda Duncan:** Are you aware of the community being approached, or have you been approached by any others who may be suggesting they might fill the gap and help to finance such a study?

**Dr. John O'Connor:** It's funny you should ask. When the Oscar-shortlisted documentary *Downstream* premiered in Canada in Fort Chipewyan in March of this year, we were invited up to the community hall. At the end of the meeting, I was approached by a representative of a major stakeholder in the tar sands. Basically he said, "We realize we haven't done everything the right way and we want to be part of the solution. Would you be willing to work with Health Canada and Alberta Health, and would you be willing to

spearhead a baseline health study?" They call it "baseline", but a health study of the community.

Of course I agreed. I said that no matter what has happened in the past with Health Canada or Alberta Health, they're still the best-positioned. They have the resources, they have the manpower, they have the history, documentation. They are very well-perched to participate in a very significant way in such a study. At the present time, I'm waiting on some correspondence back.

This was a big surprise. In fact there have been some discussions with the community about this, and the response so far from the community has been very positive.

**Ms. Linda Duncan:** For my last question, either Andrew Nikiforuk or Dr. O'Connor could answer. There have been a number of health reviews in Alberta over time, of the sour gas industry, coal fires, and so forth, because of similarly related health concerns. But there has been a bias against undertaking epidemiological work.

As I understand, a toxicological study—I'm a lawyer, not a scientist—a proper toxicological and baseline study, would require that you have the baseline information on what's in the environment and what may injure the environment, and then you also need historic information on health records and health suffering, and then an epidemiological study....

Anyway, I would appreciate feedback from both of you on the adequacy of past studies on these kinds of relationships in Canada or Alberta and on what would be needed to go forward. Do we have the correct information to actually proceed with this study?

● (0950)

**The Chair:** I'd ask that comments in reply be brief, because Ms. Duncan's time has run out.

**Dr. John O'Connor:** Do you want to go first, Andrew?

**Mr. Andrew Nikiforuk:** I think we need several studies. I think we need a study that looks at what's in the country food in the region, we need a study looking at what's in the air, we need a study that looks at what people are being exposed to when they work in the tar sands. There's a broader health issue here that affects not just aboriginal people downstream but also affects the tens of thousands of people who are working directly in this project. We need not just one big study but several studies to answer a number of critical questions.

**Dr. John O'Connor:** I've had some discussions with some experts outside Alberta as to how this could be tackled, simply because the window of opportunity for a base line is long gone. There are some suggestions that there be a presumption that the community was healthy to begin with. One thing, which may not be a major factor, is that the community never had a word for cancer; it didn't exist in their vocabulary. Now they have. There's a Cree and a Chip name for it.

The presumption of health is one thing. The assumption going into this that there either is a contribution to the ill health of the community from industry, wherever it be, or there is not is a major question that needs to be answered first. It's such a complicated issue that I couldn't do it justice with the time we have here.

**The Chair:** Thank you very much.

Thank you, Ms. Duncan.

Mr. Warawa, you have the last of the seven-minute round.

**Mr. Mark Warawa:** Thank you, Chair.

Thank you, Dr. O'Connor, and both witnesses, for being here.

I'm going to focus my questions to Dr. O'Connor.

Dr. O'Connor, what are your qualifications?

**Dr. John O'Connor:** My exact qualifications are Bachelor of Medicine, Bachelor of Obstetrics, and Bachelor of Surgery, and I have the LMCC from the federal licensing board.

**Mr. Mark Warawa:** Thank you. You described yourself as a family physician, a health advocate, and during the testimony this morning you said you also describe yourself as an activist.

**Dr. John O'Connor:** I've been labelled as that.

**Mr. Mark Warawa:** Okay.

You reported that in 2002-03 you were very sure you saw six cases of cholangiocarcinoma in Fort Chipewyan. Is that correct?

**Dr. John O'Connor:** From 2002 to 2005.

**Mr. Mark Warawa:** So you saw your first cases between 2002 and 2003?

**Dr. John O'Connor:** That's right.

**Mr. Mark Warawa:** Did you do a study?

**Dr. John O'Connor:** No, I didn't do a study.

**Mr. Mark Warawa:** Do you still believe you saw six cases of cholangiocarcinoma?

**Dr. John O'Connor:** Since the documentation has been looked at in more depth, what I suspected...I must give you a bit of background.

Cholangiocarcinoma is a difficult diagnosis to make. It comes on very quickly. Frequently, the very first symptom and sign is that the patient presents jaundice, and they usually have a history of feeling tired. At that point, it's very often too late. So we rely on diagnostic imaging by CT, MRI, and ultrasound. Frequently the patients are too ill to be biopsied. So on the basis of the clinical picture, the picture built up by the tests we can do or manage to put together, and with experience—and, in the end, an educated guess, which is part of the art of medicine—my presumption at that point was that we were at least dealing with a biliary tract cancer, possibly into the pancreas. There was not a lot of pain, and painless progressive jaundice is something that can be a very distinct hallmark of this type of cancer. So my presumption at that point was that it was at least biliary tract cancer, if not cholangiocarcinoma.

**Mr. Mark Warawa:** Do you agree with the results reported in the study just released this year, indicating that there were in fact only two cases of cholangiocarcinoma?

● (0955)

**Dr. John O'Connor:** There were two males who were biopsied. Along the way—back in 2006, actually—Alberta Health revealed a third case, a female, whom none of us knew, but they were adamant this lady came from Fort Chip. So we accepted there were three cases. She seems to have disappeared. The three other cases were biliary tract cancers, presenting exactly like bile duct cancers.

So at this point, yes, I'm accepting there were three documented cases of cholangiocarcinoma and three cases of biliary tract cancer. Unfortunately, the latter were not well enough to be biopsied. So in the end, there is a question.

**Mr. Mark Warawa:** So the report identified two cases and you're saying there were three cases.

**Dr. John O'Connor:** Well, going on the documentation presented to us, there is some difference of opinion between Alberta Health and the Alberta Cancer Board.

**Mr. Mark Warawa:** You've just come back from a trip to the Scandinavian countries. You were with Greenpeace. Is that correct?

**Dr. John O'Connor:** I was with Greenpeace, the Lubicon Cree representative from Alberta and, actually, Andrew Nikiforuk.

**Mr. Mark Warawa:** What was the purpose of that trip?

**Dr. John O'Connor:** I wanted to continue to advocate for my patients in Fort Chip. I wanted to be part of the process of informing people in Scandinavia of exactly what's happening; I basically told my story.

One of the things that's been a hallmark of this process in northern Alberta is that there's been no action or reaction from government unless media were involved.

Actually, in 2006, the mother of Brian Jean, the Conservative MP, alerted CBC of her concerns for the health of the people at Fort Chip, and CBC were told to approach me.

**Mr. Mark Warawa:** Sorry for interrupting you, Doctor, but I want to get back on...because my time is limited.

So you went on a trip to the Scandinavian countries with Greenpeace. I did some research to find out what you've been doing since 2007 when you left Fort Chipewyan, and it's reported by Tar Sands Watch that you just came back on May 26.

**Dr. John O'Connor:** That's right.

**Mr. Mark Warawa:** It says that “Greenpeace capped the campaign by using its four shares in StatoilHydro to put forward a motion that the company withdraw its investments in the oilsands”.

You made a comment earlier that you were going to see this through no matter what.

**Dr. John O'Connor:** Yes.

**Mr. Mark Warawa:** Is it to see...? In the documentary film *Downstream*, it appears that the blame for any health issues is pointed at the oil sands. And you've gone with Greenpeace to advocate for the removal of investment in the oil sands.

Is all the focus on the oil sands? Are they the total cause of any illnesses in Fort Chipewyan?

**Dr. John O'Connor:** I don't know. I'm only saying that the documentation from science and the illnesses that these toxins can cause may purely coincidentally correspond with what I documented in Fort Chipewyan. It's very difficult not to make the connection, but I'm not saying there is an absolute connection and that this must stop.

We talked in Scandinavia about what should happen. StatoilHydro is a big investor and a green oil company. One of the suggestions I had was not to pull out but to use their very good profile and reputation as an example of what should be done, ask questions, and say we need to elucidate this. We have dirty oil; we don't want dirty and bloody oil on our hands.

If the tar sands toxins are indeed causing the illnesses in Fort Chipewyan, that's a major concern. We were told in Europe that if there was even a suspicion of an industry like this causing ill health in a community, there would be a major investigation and it would be stopped or slowed down. We are very surprised that there's been no mention of anything other than not touching the brakes.

**Mr. Mark Warawa:** Is my time up?

**The Chair:** You just ran out of time, unfortunately.

• (1000)

**Mr. Mark Warawa:** Thank you.

**Dr. John O'Connor:** You're welcome.

**The Chair:** Monsieur Trudeau.

**Mr. Justin Trudeau (Papineau, Lib.):** Thank you.

I'd like to follow up on Mr. Warawa's line of questioning for a moment. You went to Scandinavia and you listened to Europeans. Does that make you less of a doctor?

**Dr. John O'Connor:** I don't think so.

**Mr. Justin Trudeau:** You speak with an accent. You spent time in Europe. Does that make you less of a Canadian?

**Dr. John O'Connor:** I don't think so.

**Mr. Justin Trudeau:** Okay, thank you.

I just wanted to straighten that out, Mr. Warawa.

On the question of undue alarm that you were under, the people of Fort Chipewyan were told they couldn't eat the fish or play in the water. Was that before or after? Were they eating the fish before you showed up to let them know that?

**Dr. John O'Connor:** Yes.

**Mr. Justin Trudeau:** So it was your telling the community that perhaps there was danger in eating the fish that caused undue alarm.

**Dr. John O'Connor:** The undue alarm complaint came in early 2007. The warning about the fish and the water came in November 2007 from Health Canada.

**Mr. Justin Trudeau:** So Health Canada is at least partially responsible for any changes in behaviour and the alarm the community went through.

**Dr. John O'Connor:** If you were to talk to the community members, I'm sure you would get some agreement, although they still say that "alarm" isn't the word they use. They use the words "grave concern" and "anxiety".

**Mr. Justin Trudeau:** Okay. Is the charge of undue alarm still hanging over you?

**Dr. John O'Connor:** Yes.

**Mr. Justin Trudeau:** How long has that been?

**Dr. John O'Connor:** It's been about 26 months now.

**Mr. Justin Trudeau:** Has there been any consultation with the people of Fort Chipewyan about that undue alarm and what it has caused them?

**Dr. John O'Connor:** There hasn't been one word.

**Mr. Justin Trudeau:** Thank you.

A concern we heard when we had other medical experts in was the issue around sample size. Fort Chipewyan's population is very small, therefore the difference between one person getting a rare cancer and two people getting cancer was perhaps not significant because there was such a small sample size that it blew it out of proportion statistically.

Can you give a sense of sample size and the issues around that? Why do you still feel that even though it was a small sample size there is cause for alarm?

**Dr. John O'Connor:** I'm not a statistician. The initial analysis in 2006 showing that there was no cause for concern was criticized because it chose a method of analysis with confidence intervals that were way too wide. It was suggested that they go on absolute numbers, which I believe was the trend for the Cancer Board when it produced its study.

If I were confident talking about sample sizes and disease occurrence, I would be able to answer the question more fully. My concern is that in the absolute numbers and in comparison with the population south of Fort Chipewyan, we shouldn't really.... They talk about chance and the possibility of things occurring purely as a result of that, but on that widespread basis with those numbers of cancers, against the background of the non-malignant illnesses in the community, I think it's a red flag.

**Mr. Justin Trudeau:** Thank you.

Mr. Nikiforuk, we haven't heard an awful lot about acid rain as an issue around the oil sands. Acid rain was fought in the industrial areas of the Golden Horseshoe more or less successfully by withdrawing the SO<sub>2</sub> and the NO<sub>2</sub> emissions.

Are there not the same kinds of standards and issues applied to emissions in and around the oil sands production and extraction?

**Mr. Andrew Nikiforuk:** Well, I think that's a really good question. I don't know if I have the answer for it.

All the projections are that SO<sub>2</sub> and nitrogen oxide emissions are increasing dramatically, and we are already beginning to see on the ground the effects of these emissions in that we now have a problem in western Canada that we've never had before, that of acid rain. It's like so much that has to do with the tar sands. It's another consequence of rapid development that hasn't been properly explored, and governments haven't been proactive about the issue.

•(1005)

**The Chair:** The time has expired.

Thank you, Mr. Trudeau.

Mr. Calkins.

**Mr. Blaine Calkins (Wetaskiwin, CPC):** Thank you, Mr. Chair.

I wanted to ask both witnesses some questions. I think I'll start with Dr. O'Connor.

When you started out your testimony you talked about the baseline basically being anecdotal or cultural stories that you've heard about how things used to be. You said they didn't have a word for "cancer". I'm sure they didn't have a word for "epidemiologist" at some point in their language either. And I say that with respect, because there are differences.

I represent a large first nations area in my constituency in Alberta, and I note that there are different health concerns on that reserve than in the neighbouring communities, and that is in large part due to cultural choices and cultural practices.

Do you know what the smoking rate is in Fort Chipewyan?

**Dr. John O'Connor:** No, I don't.

**Mr. Blaine Calkins:** Anecdotally, could you enlighten this committee as to what percentage of the population you think are smokers?

**Dr. John O'Connor:** I couldn't give a percentage, but I know that the community, because of its cohesion and because of the history of the input from medical and nursing staff at the nursing station, has been actively pursuing a healthy-lifestyle direction for a number of years.

**Mr. Blaine Calkins:** I understand that, and I don't think it's any secret as well. What I'm told from the first nations people is that there are extremely high rates of diabetes in the community that I represent, comparatively. I think there are a lot of studies out there that actually show there are differences simply due to biological factors and susceptibilities. We are different to a certain degree, and we're all affected differently by the environment that's around us.

One of the things that would be an indicator or a litmus test is cancer in children. Could you speak to any of your findings or your observations as a medical practitioner? If there was a high presence of cancer in young people, I think that would be a great signal as to any potential environmental problems.

**Dr. John O'Connor:** I'm not aware of specific cancers in children, but I am aware of cancers having occurred in people in their late twenties and early thirties in the community, in particular a form of central nervous system tumour, which I believe has affected four people, two of whom had moved from Fort Chipewyan a short time before being diagnosed. They're not included in the net because

their postal codes were not from Fort Chipewyan at the time. That's an area that needs to be explored much more.

**Mr. Blaine Calkins:** It's hard to track, isn't it?

**Dr. John O'Connor:** Yes.

**Mr. Blaine Calkins:** You also talked about statistics, and we could say, well, the quote is that there are lies, there are damn lies, and then there are statistics. But I do have a lot of confidence in statistics. I have a science degree; that's my background. I studied fish. As a matter of fact, I actually studied walleye. I was going to ask you some questions about dermal sarcoma and lymphocystis.

Do you know what those things are, Doctor?

**Dr. John O'Connor:** I'm familiar with them, but not the specific issues.

**Mr. Blaine Calkins:** They occur in walleye. To an undiscerning eye, they look like a cancerous tumour on the walleye, but they come every spring. What happens is—one's a bacterial infection and one's a viral infection—as the walleye spawn in the spring, they come in close contact with each other, they get these tumour-looking things on the sides of their bodies, and by the fall they're all gone.

When I was talking to some of the fishermen when we were up at Fort Chipewyan, they confirmed the presence of this. I asked them what the abnormality rate was of the fish, and they said one in one hundred. Well, in my experience as a fisheries technician for years for Alberta Fish and Wildlife, whether it was through netting or whatever the case may be, it wasn't uncommon to find fish anywhere in the province of Alberta with deformities. Particularly, it's not uncommon to find them with any of these other bacterial or viral infections as well.

Did you want to comment on any of that?

**Dr. John O'Connor:** I couldn't comment on the one in a hundred, but from my knowledge of being in Fort Chip for seven years, I would challenge that. I think the number is a lot higher.

I'm very curious, if this could explain the fish deformities, then why did the Alberta government refuse to do any analysis of the fish? They refused again and again. To assuage the—

•(1010)

**Mr. Blaine Calkins:** That's a good question. I don't know what the answer is because I'm not a member of the Alberta government, nor am I in the employ of the Alberta government any more.

**Dr. John O'Connor:** Just curious.

**Mr. Blaine Calkins:** That's it for me.

How much time do I have left?

**The Chair:** Nine seconds.

**Mr. Blaine Calkins:** That's pretty much it.

Thank you very much, Dr. O'Connor.

**Dr. John O'Connor:** You're very welcome.

**The Chair:** We'll move right along.

*Monsieur Ouellet.*

[Translation]

**Mr. Christian Ouellet:** Thank you, Mr. Chairman.

Mr. Nikiforuk, I would like to talk to you about the National Energy Board. Based on your experience in the field, do you believe this organization is concerned with the environment and with health, or is it only concerned with other interests?

[English]

**Mr. Andrew Nikiforuk:** I don't think public health is really a mandate for the National Energy Board. When you look at the performance of the National Energy Board, public health issues are not issues that occupy a lot of their time.

[Translation]

**Mr. Christian Ouellet:** Do they deal with the environment?

[English]

**Mr. Andrew Nikiforuk:** Yes, they do deal with environmental issues.

[Translation]

**Mr. Christian Ouellet:** I would like to talk about what we heard when we were in Calgary recently. An oil company representative told us, in answer to one of my questions, that the Alberta oil sands industry produces only 6% of Alberta's entire greenhouse gas production. Do you believe that is true? Or do you believe perhaps that the industry does not take into account the entire necessary production cycle, including Fort McMurray's greenhouse gas emissions given its population, and transportation, construction and electricity, even if they are produced elsewhere? Do you believe that 6% represents the sum total of greenhouse gas emissions as the oil company representative declared?

[English]

**Mr. Andrew Nikiforuk:** That's an excellent question.

I think the 6% figure only applies to direct emissions from upgraders, steam plants, and so on. I think if you were to include the larger footprint, say, of natural gas drilling and development, 20% of the country's natural gas is being consumed every year in the tar sands. And if you were to include its carbon footprint in terms of compressors, emissions, fugitive emissions, leaks, construction of pipelines, then you'd have a much larger figure than 6%.

[Translation]

**Mr. Christian Ouellet:** Mr. Nikiforuk, you said that the steam-assisted-gravity- drainage process creates twice as much carbon monoxide than the surface-mining method. Given that extraction will be done more and more using the steam-assisted-gravity-drainage process within 30 years, would there be some way—through carbon storage for example—that would allow us to avoid the constant increase in these emissions that are dangerous for the planet?

[English]

**Mr. Andrew Nikiforuk:** The steam plants are responsible for more carbon dioxide emissions and more greenhouse gas emissions than the mines. That's absolutely true. There is also a very broad

range of emissions from different operations. To give you an example, in the North Sea, industry produces an average of around 10 kilograms per barrel of oil produced. In the tar sands steam plant operations, carbon dioxide emissions vary anywhere from 20 kilograms per barrel to 420 kilograms per barrel, so there's an extreme range. In terms of the emissions coming from the steam plants, there are also lots of questions about the transparency of reporting.

Yes, it is an issue. There are a lot of emissions coming from the steam plants, and many more than come from the actual mining operations.

The question, then, is whether we can use carbon capture and storage to capture some of these emissions. I think there are a number of critical issues here. First, are the carbon streams from these steam plants pure enough to capture? I don't think they are. I think they would have to be cleaned up, and that would cost more energy and more money. Second, are the volumes of emissions coming from these plants enough to warrant the economic costs of carbon capture and storage? I think that's a really big economic question that the industry is asking many questions about.

The federal government has admitted that carbon capture and storage is probably not an appropriate technology for the tar sands, in particular for the steam plants, because they are so diverse and spread over such a large area. Many of the operations produce 50,000, 70,000, or 80,000 barrels a day, and that is probably not appropriate or amenable to carbon capture and storage. That's the truth of the matter.

● (1015)

**The Chair:** Thank you.

Mr. Woodworth, you're up.

**Mr. Stephen Woodworth (Kitchener Centre, CPC):** Thank you very much.

Dr. O'Connor, are you familiar with the people who prepared the study for the Alberta Cancer Board?

**Dr. John O'Connor:** As a consultant, I'm familiar with Dr. Fields.

**Mr. Stephen Woodworth:** Do you think that your qualifications are any greater or lesser than the people at the Alberta Cancer Board?

**Dr. John O'Connor:** I would imagine I'm probably more qualified in terms of knowing more about medicine, but in general, no, I'm not a specialist, so....

**Mr. Stephen Woodworth:** In particular, in relation to the issue of cancers and the statistical incidence of cancer in the community, do you think that your qualifications are greater or lesser than those of the Alberta Cancer Board?

**Dr. John O'Connor:** I'd need to know more about their qualifications in that area to answer.

**Mr. Stephen Woodworth:** You don't know their qualifications?

**Dr. John O'Connor:** In terms of statistical analysis, no, I don't.

**Mr. Stephen Woodworth:** Are you familiar with Dr. Wadieh Yacoub?

**Dr. John O'Connor:** Yes.

**Mr. Stephen Woodworth:** And do you have any comment on his qualifications in relation to these areas?

**Dr. John O'Connor:** I actually don't know. I respect Dr. Yacoub and I gather he is a specialist in terms of qualifications.

**Mr. Stephen Woodworth:** Dr. Wadieh Yacoub says that in relation to environmental exposure, "...one of the things the Alberta Cancer Board points to is the absence of any childhood cancers in the community. Childhood cancers would be one of the strong signals of environmental exposure. The second factor the report points to is that communities that are closer to the oil sands have not seen any elevation in their rates of cancer."

Would you find his observations to be reliable?

**Dr. John O'Connor:** I would love to know more about what communities were actually examined and analyzed in terms of cancer incidence.

**Mr. Stephen Woodworth:** You're saying, then, that you don't feel qualified to question or comment on his conclusions in relation to environmental exposure.

**Dr. John O'Connor:** I would like to know more about those statements.

**Mr. Stephen Woodworth:** You're not adequately informed about these issues?

**Dr. John O'Connor:** Exactly.

**Mr. Stephen Woodworth:** Thank you.

Regarding the Alberta Cancer Board, I take it you've seen their February 2009 report. Is that correct?

**Dr. John O'Connor:** I have.

**Mr. Stephen Woodworth:** Are you familiar with the methodology that they employed in their study?

**Dr. John O'Connor:** I am.

**Mr. Stephen Woodworth:** Do you find the results of their study to be generally reliable?

**Dr. John O'Connor:** I think so.

**Mr. Stephen Woodworth:** At one point you said that, to your knowledge, there were no further studies ongoing. I'd like to know what investigations you've undertaken since the February 2009 release of the Alberta Cancer Board report that lead you to make such a statement.

**Dr. John O'Connor:** My colleague and successor in Fort Chip, Dr. Liam Griffin, keeps me updated almost on a daily basis about what's happening in the community. I'm also back in Fort McMurray and Fort McKay every six weeks for about two weeks. I'm looking after the community as an on-call physician at a distance in Nova Scotia every second week. I'm very familiar with what's going on, on the ground, in Alberta and in Fort Chip.

**Mr. Stephen Woodworth:** Apart from the meeting you were mentioning earlier, have you had any other communication with the Alberta Cancer Board or Health Canada regarding what ongoing investigations they may be pursuing at this time?

● (1020)

**Dr. John O'Connor:** I have had no direct communication with the Cancer Board or Health Canada but rather through the health director in Fort Chip. She has told me repeatedly there are no plans for any further investigation—

**Mr. Stephen Woodworth:** Sorry. Who has told you that?

**Dr. John O'Connor:** The health director in Fort Chip.

**Mr. Stephen Woodworth:** By whom is she employed?

**Dr. John O'Connor:** By the Nunee Health Board Society, which is the administrative body for health in Fort Chip.

**Mr. Stephen Woodworth:** Would you agree with me that quite a bit of what you've told us this morning is repeating what other people have told you rather than anything from your own direct observations?

**Dr. John O'Connor:** I totally disagree.

**Mr. Stephen Woodworth:** For example, the last statement you made to me as to whether there are ongoing investigations, you're relying on what someone else has told you. Right?

**Dr. John O'Connor:** In other words, there are no further investigations that I've been informed of.

**Mr. Stephen Woodworth:** All right. That's an important qualification, isn't it?

I'd also like to understand your comments about Greenpeace and your trip to Scandinavia. It appears to me you were saying this was part of an effort to attract media attention. Did I understand you correctly?

**Dr. John O'Connor:** No, not at all.

**Mr. Stephen Woodworth:** You were asked why you were in Scandinavia, and you began to talk about the need for media attention. I think you referred to Brian Jean's mother.

So you weren't trying to make any comment about your trip to Scandinavia as it relates to media attention?

**Dr. John O'Connor:** Mr. Chairman, if I can get back to what I already said, there's been no reaction from any government agency, other than when media were involved. And that's the government's choice.

**Mr. Stephen Woodworth:** My question to you was whether your trip to Scandinavia was an effort to attract media attention.

**Dr. John O'Connor:** Absolutely not.

**Mr. Stephen Woodworth:** Regarding the issue of further studies, I think your evidence to us today was that on short notice it's difficult to do it justice. Did I hear that correctly?

**Dr. John O'Connor:** Yes.

**Mr. Stephen Woodworth:** How quickly do you think an acceptable study could be planned, set up, and implemented?

**Dr. John O'Connor:** I would say over the next six to twelve months we could have one up and running.

**The Chair:** Time has expired.

Mr. Braid, you're up.

**Mr. Peter Braid (Kitchener—Waterloo, CPC):** Thank you, Mr. Chair. I'll start with Dr. O'Connor, if I could.

Thank you very much, Dr. O'Connor, for being here.

**Dr. John O'Connor:** You're very welcome.

**Mr. Peter Braid:** I certainly appreciate the importance you place on advocacy. I think that's central to any physician's role.

With respect to providing medical care to the residents of Fort Chipewyan, currently you're providing on-call care and you visit every six weeks. Is that correct?

**Dr. John O'Connor:** No. I visit Fort McKay every six weeks, but I'm on call for Fort Chip.

**Mr. Peter Braid:** How many other physicians are currently providing medical care in Fort Chip?

**Dr. John O'Connor:** One, my successor.

**Mr. Peter Braid:** Do any of your predecessors or your successor share similar concerns, perspectives? Are you the first to make these discoveries?

**Dr. John O'Connor:** Because of Fort Chip's unique location, I have not had the opportunity to speak to any of my predecessors. Dr. Griffin, my successor, is keeping a log and a very close eye on the health issues he's encountering, including cancerous and non-cancerous illnesses.

**Mr. Peter Braid:** So as far as you're aware, none of your predecessors....

**Dr. John O'Connor:** Other than reading what they documented in the files in the nursing station.

**Mr. Peter Braid:** With respect to drinking water, are there concerns with the quality of the drinking water?

**Dr. John O'Connor:** At the moment there's a boil water advisory. I believe this is the second in a couple of years. I don't know why. We weren't able to find out fully.

There's always been a concern, prior to my coming to the community, about the water, especially with the water quality, the taste: the clear, cold, fresh water in comparison with...over the last 10 to 15 years, how it had deteriorated.

I believe the water treatment plant has been looked at in the community and found to be adequate, although I don't have the documentation on that. But I've been assured and reassured that that's the case.

So from the community's perspective, they've chosen over probably the last 10 years not to drink the water.

•(1025)

**Mr. Peter Braid:** In an earlier question, I think Mr. Calkins referred to the unfortunate higher incidence of diabetes among the aboriginal population. I'm not a scientist or a physician, but as I understand it, one of the reasons for that unfortunate higher incidence is the role of genetics. Have you considered what role, if any, genetics may play with respect to the issues you're speaking about in Fort Chip?

**Dr. John O'Connor:** I've questioned it, and I've made my best effort, with the documentation we have, to see whether it could be a major player. We've had no expert advice on paper, but in discussions with consultants, the array of illness in the community

makes it much less likely to be a big issue. It could play a part. That's why I sort of left it out there as a question.

**Mr. Peter Braid:** Finally, with respect to the guidelines for eating fish at Fort Chip and the suggestion to eat fish no more than once per week, can you help me understand, as a lay person, as a Canadian, what the differences are in terms of the guidelines for me eating fish on a weekly basis? I believe those guidelines exist for everyday Canadians as well. What are the differences?

**Dr. John O'Connor:** That's a big area. Wild fish would probably be a lot better for you than farmed fish. I'd probably steer away from tuna.

We could talk about this for the next half hour. But in terms of Fort Chip, specifically, there never was an advisory before the analysis was revealed in November of 2007.

**Mr. Peter Braid:** Mr. Nikiforuk, your perspective on the oil sands is critical. I'm just trying to understand what your suggestions or your recommendations are with respect to the ongoing development of the oil sands, how it might be sustainable, and quite frankly, because you seem to be advocating this, how we replace our carbon-based energy system in the world.

**Mr. Andrew Nikiforuk:** I have a number of suggestions. My critique of the rapid development of the tar sands, really, has to do with the manner in which it has taken place. We have developed this resource too fast. It is a very critical, very strategic resource for this country as well as for North America. However, we are developing it at such a rate that we are creating environmental problems that we do not yet have the technology to solve.

In terms of solutions, my solutions get about as radical as the recommendations of former Premier Peter Lougheed: slow down. Where is the fiscal accountability for this project? The rapid development of this project has been driven by low corporate taxes and by low royalties in Alberta. That's not coming from me. That's coming from the U.S. Council on Foreign Relations in their most recent report on oil sands development. What problems are we solving globally by rapidly developing this resource? None. Again, according to the U.S. Council on Foreign Relations, we are solving no global problems. We are making no place more secure. We're simply putting more bitumen and synthetic crude on the market.

I think what former Premier Peter Lougheed said—and the man is a true conservative—was let us slow down. Let us establish real fiscal accountability with this resource. Let us do one project at a time. And let us deal with the environmental and public health issues that rapid development has created.

We have approved, since 1996, more than 100 tar sands projects. Those are mining projects and steam plants. And we have done that without adequate safeguards. We have not been proactive. You cannot exploit a resource as carbon intensive, as water intensive, and as capital intensive as bitumen without making consummate investments in renewable energy resources across this country. Now we are stuck with the stigma of producing dirty oil, and I would argue that it is a fair description. It is one that we have brought upon ourselves, because as a people, we have not been proactive.

Perhaps the last thing I would say here is that we are repeating the mistakes of the past. We are natural resource producers and developers. That's what we do. That's what Canadians have always done. We cut down trees, we dig up rocks, and we export them. We don't add value to them. We exported furs to Europe. We did not export fur hats. Why are we exporting raw bitumen now? That is where all the money and all the value is to be made and created. Again, this is another position of former Premier Peter Lougheed: add value to the resource.

So we have failed in a number of areas. We have opportunities now to address these. But I doubt we will until, first, we have a national conversation about the pace and scale of development in the tar sands, and, second, we impose some fiscal accountability on this resource, which we have not done yet.

•(1030)

**The Chair:** Thank you. Your time has expired.

Mr. Watson, you have the floor.

**Mr. Jeff Watson (Essex, CPC):** Thank you very much, Mr. Chair.

Thank you to our witnesses, of course, for appearing in our study of the oil sands and its effects on water.

One of the things I like to do, obviously, for some of our witnesses is to have a sense of who they are a little bit.

Mr. Nikiforuk, do I have that pronounced properly?

**Mr. Andrew Nikiforuk:** That's correct.

**Mr. Jeff Watson:** Thank you.

I was looking for a comprehensive bio, if you will, about you. What I could find, for example, is that you're an award-winning author. If I count correctly, you've won seven National Magazine Awards, a 2002 Governor General's Award, and the *Toronto Star* Atkinson Fellowship. Those are certainly some impressive credentials when it comes to being an author and an investigative journalist.

What other educational degree, work experience, anything like that, do you have that would lend itself to some relevant expertise on the oil sands? A biology degree, environmental sciences, hydrogeology, chemistry—do you have any expertise like that, Mr. Nikiforuk?

**Mr. Andrew Nikiforuk:** No. I would say I'm largely a business reporter who's been writing about the oil and gas industry for more than 20 years. I don't have any degrees.

**Mr. Jeff Watson:** Okay.

**Mr. Andrew Nikiforuk:** I'm not a well-degreed fellow.

**Mr. Jeff Watson:** Okay.

We'll be evaluating your testimony under the rubric of a journalist, not a scientist, then.

**Mr. Andrew Nikiforuk:** I've never—I'm an informed labourer, no more, no less.

**Mr. Jeff Watson:** Your website home page features a press release—I believe it's by the National Farmers Union—that characterizes you “as an honest and provocative voice in Canadian journalism”. Do you agree with their assessment of your journalism?

**Mr. Andrew Nikiforuk:** I do.

**Mr. Jeff Watson:** What is your relationship to *Land Advocate: news for Canadians living with oil and gas production*? What is your relationship to that publication?

**Mr. Andrew Nikiforuk:** That is a publication that I occasionally edit about oil and gas issues and how they affect landowners throughout western Canada.

**Mr. Jeff Watson:** Okay. I am holding in my hand—

**Mr. Andrew Nikiforuk:** I am a landowner in western Canada.

**Mr. Jeff Watson:** Okay. Very good.

I have a copy of the *Land Advocate* from February 2008. I'm looking at something you edited for it, “Does Oil Hinder Democracy?” It's about 750 words long, plus or minus. In it, you characterize Alberta as “an oil sands sheikdom”. You call them “a poster child” for the “First Law of Petropolitics”. You accuse them of being a “one-party state” and former Premier Ralph Klein of being “Alberta's number one petro bully”. You talk about “making propaganda”, hiring spies. You accuse the EUB of “acting with the same authoritarian élan championed by Hugo Chavez or Vladimir Putin”. Health Canada and Alberta Health is—

**Some hon. members:** [*Inaudible—Editor*]

**The Chair:** We are talking about oil sands and water and he is talking about oil, so go ahead, Mr. Watson.

**Mr. Jeff Watson:** It's not only that, Mr. Chair. The witness has agreed that he is both an honest and provocative journalist. I'm simply exploring that, if you don't mind.

You accuse Health Canada and Alberta Health of acting with “Russian-like malice”. This is all in 750 words. The icing on the cake is that the Public Affairs Bureau “works much like the Politburo in the former Soviet Union”. I'll remind you, Mr. Nikiforuk, that the Politburo was complicit under a true totalitarian regime of Josef Stalin for having killed tens of millions of its own people, including millions of Ukrainians who were starved to death, my mom's side of the family being Ukrainian.



•(1035)

[Translation]

**Mr. Bernard Bigras (Rosemont—La Petite-Patrie, BQ):** Mr. Chair, I would think that questions and comments should have a bearing on the agenda. However, I do not think that the comments have anything to do with the subject. Therefore, I request that you call the colleague to order.

[English]

**The Chair:** On the same point of order, Mr. Warawa.

**Mr. Mark Warawa:** Speaking specifically to that point of order, Mr. Chair, there has been broad dialogue this morning from all around this table. So for Mr. Bigras now to try to muzzle one of the members of this committee and restrict his questioning is not appropriate—

**Mr. Jeff Watson:** That's very totalitarian in fact.

**Mr. Mark Warawa:** —to the dialogue and he should continue.

**The Chair:** Order, here.

We have Mr. Woodworth.

**Mr. Stephen Woodworth:** Thank you.

I know this committee doesn't exactly test all of the evidence it receives, but it's quite a common thing to test the credibility of a witness. If a witness has made weird and unusual allegations previously on the very subject that we're here to study, I think it's very relevant to the witness's lack of credibility. I believe that's a legitimate point for us to explore.

**The Chair:** Mr. Trudeau.

**Mr. Justin Trudeau:** I believe that bringing in Stalin and his role around the politburo and the actions of 50 years ago as somehow being a parallel that the author brought in is a little beyond the reach of this study on oil sands and water, even with the generous sense of scope that we are applying here.

**The Chair:** Monsieur Bigras.

[Translation]

**Mr. Bernard Bigras:** Thank you, Mr. Chair.

I thought that we had agreed on a working plan and that we had decided to call in a certain number of witnesses.

[English]

**Mr. Blaine Calkins:** We're simply debating; there's no—

**The Chair:** No, no, we're talking about a point of order on rules of relevance.

[Translation]

**Mr. Bernard Bigras:** I said that we had adopted a list of witnesses. If everyone adopted the list of witnesses, it means that we deemed that these persons could give valuable testimony and that they had something to say.

If a colleague opposite thought that one of the two witnesses before us today should not have come here to express his opinion, it was up to him to say so. If we adopted the list of witnesses, it was because we deemed that they had something to say. I think that we must respect that. Mr. Chair, it is your duty to make sure that our witnesses are respected by all the colleagues in the committee.

[English]

**The Chair:** Finally, we'll go to Mr. Watson on the same point of order.

**Mr. Jeff Watson:** I would love to speak to that. I was simply quoting from an editorial piece called “Does Oil Hinder Democracy?”, talking about oil, of course, from a publication subtitled “News for Canadians living with oil and gas production”. I figure that's fair domain and is what we're talking about here. These aren't my words. I'm simply exploring the words of one of our witnesses here today who has written extensively about this particular subject. We have to be able to evaluate his comments in light of those testimonies presented by other witnesses.

We do the same types of things, Mr. Chair, in terms of exploring their credibility. We have to be able to evaluate and weigh whether we trust the testimony from this particular witness versus another. Part of my questioning down the road here a little, too, is to explore that a little in terms of what experts have said on this, as opposed to a journalist, for example. We have to be able to weigh those things, and I think I'm entirely germane to what the discussion is about, Mr. Chair.

**The Chair:** Finally, Mr. Trudeau, on this same point of order.

**Mr. Andrew Nikiforuk:** May I answer these questions?

**The Chair:** No, sorry, it's a point of order and the members are discussing this.

**Mr. Justin Trudeau:** The document in question does not mention Stalin and genocide, and I think that was the trigger here.

**The Chair:** Well, we are talking about rules of relevance, but we are talking about oil sands, and Mr. Nikiforuk as a witness has his credentials that are available to be discussed, so it is relevant to the discussion we're having. We have had a fairly broad discussion today, even talking about acid rain, which is not part of the terms of reference of the study. We're talking about groundwater predominantly, and we did go into coal plants and things of that nature, so we have been fairly broad and I have been fairly slack in allowing the latitude to members to discuss these issues. Mr. Watson is quoting from a newsletter that refers strictly to land and oil and the relationship there, which Mr. Nikiforuk has admitted he edits.

So I'm going to allow Mr. Watson to continue on with his question, but try to get down to your point because your time is running out.

**Mr. Jeff Watson:** How much time do I have left now, after this intervention?

**The Chair:** I'm going to give you two minutes.

**Mr. Jeff Watson:** Thank you.

In one of your books, Mr. Nikiforuk, you talk about the tailings ponds seeping into groundwater. You mentioned that for the last decade the downstream community of Fort Chipewyan has documented rare cancers. We've heard expert testimony at this particular committee already that both of those claims are false. How do we evaluate your testimony versus those, Mr. Nikiforuk?

•(1040)

**Mr. Andrew Nikiforuk:** Mr. Watson, I am a journalist and my job is to question experts.

**The Chair:** Mr. Nikiforuk, please, I've got a point of order from Ms. Duncan.

Ms. Duncan.

**Ms. Linda Duncan:** For the record, Mr. Chair, in fact we have heard testimony that there have been rare cancers documented, and we have heard sensitive testimony that there is now evidence that there may well be leakage from the tar ponds.

**The Chair:** We'll check the blues and we'll qualify that statement.

Mr. Watson.

**Mr. Jeff Watson:** I've asked the question, Mr. Chair.

**Mr. Andrew Nikiforuk:** Mr. Watson, my job is to question experts. Experts lie, experts will protect their professions, experts don't always tell the truth, and my job as a journalist is to question them. Yes, the tailings ponds are seeping and they are leaking, and yes, there have been cases of documented rare cancers from the community of Fort Chip.

Now, on the Alberta Cancer Board study, which one member described as the work of experts, why is it that a group of experts would exclude from their study a critical document by the World Health Organization on bitumen and how bitumen can cause cancer? Why would they exclude that from their study? Is that expert bias?

**Mr. Jeff Watson:** Mr. Nikiforuk, you've also said that past environmental rules and monitoring have been inadequate—just so that we're working with some of the more recent facts.

Are you familiar with the chemicals management plan? There are 160 priority petroleum substances that are to be completely reviewed by 2010 using CEPA as a tool to regulate, including naphtha and other substances relevant to what we're discussing here.

Are you familiar with that?

**Mr. Andrew Nikiforuk:** No, I'm not.

**Mr. Jeff Watson:** Are you familiar with Bill C-16, the government's environmental enforcement bill, which is currently passing through the Senate. I believe it's come out of committee without amendment and it's going to final reading. Are you familiar with that?

**Mr. Andrew Nikiforuk:** No, I am not.

**Ms. Linda Duncan:** It's irrelevant.

**Mr. Jeff Watson:** It's entirely relevant. We're talking about environmental rules and monitoring, Ms. Duncan, just for the record.

**Mr. Andrew Nikiforuk:** Let me remind you, Mr. Watson, that in 1974 and 1973 Alberta Environment recommended that the tailings ponds not expand, that it was unsustainable, and that other processes be found before mining development proceeded at a rapid pace. That never happened. The Energy Resources Conservation Board didn't come up with criteria for tailings pond management until 2009. That's the kind of regulatory neglect that I cite in my book and that I cite repeatedly. The same thing applies to groundwater monitoring for steam plants.

There is a record of persistent neglect on environmental issues in the tar sands, and I have them all documented.

**Mr. Jeff Watson:** With respect, for the record, Mr. Chair, according to the World Economic Forum, on environmental regulatory stringency Canada is 20th out of 133 countries. As to other oil-producing nations, Mexico is 74th, Nigeria is 86th, Libya is 88th. With respect to environmental enforcement, again according to the World Economic Forum, Canada is 17th out of 133 relevant countries, with Mexico 77th, Nigeria 94th, and Venezuela 99th. On Yale University's Environment Performance Index, Canada is number 12.

I think, Mr. Chair, there's a strong record with respect to environmental enforcement for the country.

**Mr. Andrew Nikiforuk:** No, there is not.

Mr. Chair, let me reply to that. There is absolutely not.

**The Chair:** I'm going to move on with questions.

Mr. Scarpaleggia, for the third round, five minutes, please.

Sorry, it's four minutes, to give every party a chance.

**Mr. Francis Scarpaleggia:** Mr. Nikiforuk, would you like to finish off on that answer?

**Mr. Andrew Nikiforuk:** I think the record shows that Canada has persistently neglected water. A really radical group like the Conference Board of Canada recently gave Canada a mark of D for waste water generation. It gave a D for greenhouse gases. Out of something like 20 countries, it rated us near the bottom.

There are lots of different ways of examining how neglectful Canada has been. Particularly in the area of water enforcement and water monitoring, we have a poor record.

•(1045)

**Mr. Francis Scarpaleggia:** Thank you, Mr. Nikiforuk.

Dr. O'Connor, you've been accused of raising undue alarm, of course. Correct me if I'm wrong, but because of your statements and your choosing to raise a red flag, Health Canada did an investigation of the cancer rates in Fort Chipewyan. Is that correct?

**Dr. John O'Connor:** That was the 2006 study.

**Mr. Francis Scarpaleggia:** It was in reaction to the points you had raised?

**Dr. John O'Connor:** Yes.

**Mr. Francis Scarpaleggia:** Following that, no less an organization than the Alberta Cancer Board did a study, more exhaustive than Health Canada's, and recommended a continuous study. It seems to me that they lend credibility to your claims, at least enough credibility to feel that more research is required. That seems to be what you're trying to accomplish. You're not trying to alarm anyone; you're just trying to get somebody to look at the problem.

Is that correct?

**Dr. John O'Connor:** That is precisely it.

**Mr. Francis Scarpaleggia:** In terms of the mechanism through which pollutants from the oil sands or from other sources would reach the first nations people of Fort Chipewyan, there are a lot of question marks. To your knowledge, have there been comprehensive tests of the drinking water that comes out of the water filtration plants there? Would these tests have tested for heavy metals and so on, or would they just test for bacteria and viruses that can be killed with chlorine? Have they done exhaustive testing on the drinking water from the filtration plant?

**Dr. John O'Connor:** From what I've been told by these very people, the levels of bacteria are monitored and a standard battery of tests are used in all treatment plants. I don't believe there's been any comprehensive testing or ongoing testing of the types of toxins we're talking about or heavy metals. I could be wrong in that regard but I don't think so.

**Mr. Francis Scarpaleggia:** Thank you.

So the theory would be, then, that either things are getting through the filtered water or the people of Fort Chipewyan are drinking from the rivers, which Dr. David Schindler recommended not be done. They may also be ingesting natural foods or foods from the land that would be contaminated. That would be the transmission mechanism, I guess.

I recall Dr. Schindler saying if there are heavy metals in the sediments from the oil sands, chances are they would get caught way upstream and wouldn't make their way downstream. Have you heard that argument?

**Dr. John O'Connor:** No, I haven't.

**Mr. Francis Scarpaleggia:** I thought I read that in his brief.

**The Chair:** So we can give everybody a fair chance, we'll now move to Mr. Ouellet.

[Translation]

**Mr. Christian Ouellet:** Mr. Nikiforuk, I would like to return to an issue that we raised previously. I am talking about the amount of water used for producing crude oil in the west. A part of the water evaporates. The evaporation comes from the decantation basins. This produces very large amounts of greenhouse gases, and the amounts will increase more and more as the climate changes.

Do you think that the amount of water that evaporates from these huge basins has been calculated yet? These basins are like lakes. I think that it will be one of the biggest lakes in Canada. Do you think that the evaporating water contributes a substantial amount of greenhouse gas?

• (1050)

[English]

**Mr. Andrew Nikiforuk:** The tailings ponds occupy an area of about 120 square kilometres in total. Yes, they are a significant source of volatile organic compounds and other greenhouse gases and methane.

I've talked to a number of people in industry, and this is not a critical source of emissions from the tar sands. There are other, more important sources, but this is one of many. Again, I don't know how well it has been quantified either.

[Translation]

**Mr. Christian Ouellet:** I have another question for you, Mr. Nikiforuk. Did you say that one single refinery emitted an amount of greenhouse gas equivalent to the greenhouse gases emitted by 340,000 cars? Were you talking about an already-existing refinery, or about a refinery that could be built for processing the crude bitumen from the oil sands?

[English]

**Mr. Andrew Nikiforuk:** I think that was a reference to the construction of a refinery in the Great Lakes area to handle bitumen and that the volume of greenhouse gases that would be created as a result of refining the bitumen there would be equivalent to that number of cars.

[Translation]

**Mr. Christian Ouellet:** If a refinery was modified so that it could refine bitumen, by how much would the greenhouse gas emissions go up?

[English]

**Mr. Andrew Nikiforuk:** I can't give you exact data on how many more greenhouse gas emissions a refinery will make if it is processing bitumen. I don't have that data at my fingertips.

[Translation]

**Mr. Christian Ouellet:** In conclusion, Mr. Nikiforuk, I would like to tell you that I have been an architect during my entire life. Like you, I also never got a degree. I practised architecture because I was recognized as an architect. You do not need a degree to be recognized in your field.

Thank you, Mr. Chair.

[English]

**The Chair:** Thank you.

Ms. Duncan.

**Ms. Linda Duncan:** Thank you, Mr. Chair.

Dr. O'Connor, in law there is a rule called the thin skull rule. What that rule means is that you have to take your victim as he's received. In other words, if somebody's a sensitive person, you have a car accident and you kill them and they happen to have a particularly sensitive skull, that's tough luck, it's not an excuse as to why you severely injured or harmed them. You still have to pay the compensation.

Some of the members opposite are trying to suggest that perhaps the high and growing disease rates in Fort Chipewyan are because of bad habits, smoking, high diabetes from eating inappropriate foods. You've advised us that Health Canada has sent the advisory that they have to stop eating traditional foods as much. So clearly then their diet might change.

Would it be true that weakened health will potentially make the community less resistant to the impacts of toxins?

**Dr. John O'Connor:** Can you repeat the last part?

**Ms. Linda Duncan:** Would it be true that if your health becomes weakened over time, and you're advised not to eat the traditional foods, and traditionally you relied on those, then if you are less healthy, you would have less immunity to the impact of toxins?

**Dr. John O'Connor:** I think that's very plausible. One of the issues in Fort Chipewyan, which has maybe also driven the dependence on traditional foods, is that people cannot afford to shop at the local supermarket. I've heard several mentions of pop and chips being the staple diet. I'm afraid that's not true at all. Eighty-percent-plus of the community eats traditional foods, unfortunately, still, even given the advisory, because there's no alternative.

**Ms. Linda Duncan:** I understand that a number of recently diagnosed cancers are among the elders, who have always lived off the land.

**Dr. John O'Connor:** Absolutely. They are the most traditional living of all the people in Fort Chipewyan.

**Ms. Linda Duncan:** Dr. O'Connor, do you think it would be useful, for the next phase of studies, which we're all hopeful will be expedited, to employ a peer review in the establishment of the terms of reference for the study and a peer review of any findings?

**Dr. John O'Connor:** Absolutely. It's going to have to involve people who are recognized in this field. There are a number of worldwide experts who are now looking at this issue. And I think it will actually take that to make it a comprehensive and credible study.

• (1055)

**Ms. Linda Duncan:** So you think it might be advantageous for the federal government to be in touch with some of these other agencies and institutes that have conducted such studies.

**Dr. John O'Connor:** Yes. Exactly.

**Ms. Linda Duncan:** I'd welcome any kind of recommendations you could pass on to us.

There was a suggestion by Dr. Wadieh Yacoub, who testified before the committee. He essentially maligned you in suggesting that you had failed in providing timely reporting on the cancers. Is that your obligation?

**Dr. John O'Connor:** No, it isn't. I was really saddened to hear that. I have nothing personally against Dr. Yacoub. And I'm not sure it was personal. But Dr. Yacoub should know very well that family physicians have no part in reporting cancer. We have no process for doing it. We don't diagnose cancer. We actually refer people. Even for the minor operations and surgeries we do in our offices, the pathologist analyzing the samples taken is the person who makes the diagnosis.

Just to be sure, I double-checked with the Alberta Medical Association, family practice section, and I was told flatly that family physicians do not report cancer. My successor in Fort Chipewyan, who was referred to as the physician in Fort Chipewyan who was now reporting cancer, got angry and irate and responded very publicly to say that he was doing nothing more than I did, which was my obligation in Fort Chipewyan. It was my obligation in Fort Chipewyan to simply document what I was finding.

**The Chair:** Your time has expired.

Before I turn it over to Mr. Warawa, I just want to inform the committee that as we discussed at Tuesday's meeting, arrangements have been made for lunch after caucus on Wednesday at 12 o'clock in room 602 of the parliamentary restaurant, so we can have a kind of wrap-up lunch, along with Environment Commissioner Vaughan.

With that, we'll go to Mr. Warawa.

**Mr. Mark Warawa:** Thank you.

Dr. O'Connor, so I don't forget, I'll begin by saying that during our trip to Fort Chipewyan, we sensed a great respect in the community for you and the work you've done in that community. I think it's reciprocal. I sense a real love for that community from you.

Mr. Calkins asked you about your opinion regarding deformities in fish. Have you seen the goldeye with the two jaws?

**Dr. John O'Connor:** Yes, I have.

**Mr. Mark Warawa:** Do you believe it is a deformed fish?

**Dr. John O'Connor:** At the time I saw it, I'd never come across anything like it. It struck me as being really odd, but I really didn't know. It looked very symmetrical. Of course, at the time, the leadership in the community that had produced it held back as well. They said we needed to have it analyzed.

**Mr. Mark Warawa:** Do you believe there's a possibility of deformity then? Do you believe it could be caused or slightly caused by the oil sands?

**Dr. John O'Connor:** I'm not sure the goldeye was deformed. I think it may have been something else. It may have been a natural occurrence. In terms of the other deformed fish, the fish with tumours and bulging eyes that are quite dramatic, I think that's not natural. I couldn't explain it on the basis of...

**Mr. Mark Warawa:** No, my question is: is the causal factor the oil sands?

**Dr. John O'Connor:** I guess it could be.

**Mr. Mark Warawa:** I think we've heard today that it is. You're not certain, and it "may be".

Do you believe that the health concerns you've raised, the fish deformities, are being caused by the oil sands?

**Dr. John O'Connor:** I think there is enough of a strong indicator that it begs investigation. But I'm not an expert; I can't say for sure.

**Mr. Mark Warawa:** I want to touch quickly on your trip with Greenpeace. You were quoted in the *Tar Sands Watch* as saying, “I am particularly struck by the lack of knowledge and high level of interest in Scandinavia about human health problems linked with tar sand development.”

In that statement, you are providing a direct link to tar sands and health concerns. Now I'm hearing that you're not certain.

**Dr. John O'Connor:** No, I believe I said “that are possibly linked” with tar sands development.

**Mr. Mark Warawa:** Well, the quote they had is “human health problems linked with tar sand development”. Was that a misquote?

**Dr. John O'Connor:** I think so.

**Mr. Mark Warawa:** Okay.

Were you aware when you went with Greenpeace that you were part of a 10-day delegation and that their purpose was to pressure the Norwegian government to not have participation in the oil sands?

• (1100)

**Dr. John O'Connor:** I believe that was Greenpeace's intent in going to Scandinavia. My purpose in going there was to highlight the concerns that have arisen as a result of the findings downstream, the concern of the peoples across northern Canada. Also, and I've said this very clearly to them, there have been silver linings to this cloud of the tar sand development. A lot of members of the communities would not have had the ability to earn the types of incomes they have had. That is a kind of good—

**Mr. Mark Warawa:** I'm sorry to interrupt, Doctor, but my time is limited.

When you were in Scandinavia, in the message they heard, did you bring up pulp mills and industry along the river, or was it mainly focused at the tar sands?

**Dr. John O'Connor:** I just told my story.

**The Chair:** Your time has expired, and we have to adjourn.

I want to thank both witnesses, Mr. Nikiforuk and Dr. O'Connor, for appearing today and sharing your testimony. We'll definitely make use of it as we work towards putting together a report on behalf of the committee.

Mr. Warawa.

**Mr. Mark Warawa:** Chair, we've handed out an information package to the committee for Nahanni. Could it be passed out before we adjourn?

**The Chair:** We'll make sure it is circulated and that all committee members have the information packet.

With that, can I have a motion to adjourn?

**Mr. Jeff Watson:** I so move.

**The Chair:** It is moved by Mr. Watson.

We are out of here. The committee is adjourned.

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