

and if people don't report this in the general medical literature, it is impossible for us to determine the level of protection that people are going to require.

Tell us about arsenic - what does it do to our body?

Well, it's a poison. Everybody has heard about arsenic poisoning in large quantities but what people don't realize is that it can do things even in doses that don't kill. There are certain brain enzymes that are attacked by arsenic and also the heart muscle can be attacked so that arsenic can hit virtually every system. For example, it can cause lesions of the skin, it can cause redness or discolouration or actually an abnormal growth of the skin which would go hyperchromosis and eventually it can cause cancer of the skin.

You wouldn't swim in water with arsenic in it?

I certainly would not. No, no! It can cause abnormal skin lesions and ultimately lead to skin cancer. Arsenic workers do have more skin cancer. It can cause intestinal symptoms like nausea, and vomiting sickness to the stomach and so on and it does do this in people who take it in, say, quantities.

Is there a safe level, let's say in drinking water?

Well, again, you see in terms of, you know, just to continue briefly, it can affect the nervous system in the brain so that where we see people who have taken in a fair amount of arsenic they develop motor palsy and they can develop actually abnormalities of balance and walking and so on. Now much of our information relates to people who work. Now these are adults who are usually resistant people. The tremendous concern that we have relates to people who we call high risk people. These are aged people, who have poor circulation to begin with, or very young children who may be exposed over a prolonged period of time. And, this is very different from an adult. We're finding out that children can have a lot of serious effects at levels that adults are not bothered by at all so that when we see this kind of material out in the general public it's very bad.

Now in regard to the question you ask, Is there a safe level? Well anything that produces cancer, as far as I am concerned has no safe level, because for a number of reasons: 1. We don't know how much arsenic it takes to produce a cancer, nobody knows that. We do know, however, that the longer that someone is exposed to it the better their chances because the problem with cancer is that it may take 20, 30 or 40 years for somebody to develop a disease. Now, where you have a disease like that, that is once you have it you're dead or the possibility of a cure is extremely small, then that kind of a material shouldn't exist in the environment. As far as I am concerned there is a zero tolerance to this sort of thing.

Now the fact is that arsenic is known to cause leukemia and we do see leukemia

frequently in children. The question of whether or not this is because of a placental transfer or something, I don't know, and I don't know that there are any data. But since lead, mercury and cadmium can cross the placenta and other metals can like lithium, it is very possible that arsenic can also.

What would you think about someone who is getting his drinking water by melting ice on the lake?

You mean what lake, the lake that had a lot of arsenic?

Yes, a lake with a lot of arsenic.

I think that he shouldn't do it. I think that that's bad for his health. Well the fact that it is in the water may dilute it a little bit but if you have a lake into which arsenic has been dumped for a long period of time - the levels may be extraordinarily high.

Dr. Carno, could I get you to comment on the findings in the 1969 study done by the Canadian Department of National Health and Welfare.

Well, they should with, what's known about arsenic, they found an increase in deaths from heart disease. Well, we know that arsenic does affect the heart muscle. As a matter of fact there are a number of studies which have shown abnormalities in the electrocardiogram even with relatively low exposures that the fact that there are increased deaths from heart disease in a pioneer population, that is a population which you think would be much healthier than people in cities, suggest very strongly to me that this may be related to the arsenic. In terms of the cancers of the blood, the leukemias and lymphomas that they found in excessive numbers, this too is very significant because these are not common cancers and when you find that number of cancers in a relatively small population, then it would seem to me that something should be done immediately.

So the findings in this study you think fit with the presence of arsenic in the environment?

Oh sure, the skin lesions, the lymphomas the leukemias, the abnormal increase in heart disease, it certainly would fit.

If you had this data, you wouldn't sit on it?

Well, I certainly wouldn't. We used to use arsenic as a medicine, now this is arsenic in a more benign form. Even so we began to see a lot of liver disease in people and so we stopped using it - nobody uses it anymore.

First of all I would in the light of current knowledge and even what we knew 5 or 10 years ago I would not permit excessive amounts of arsenic getting into the water. I certainly would have monitored the population, as this population was monitored and I think that that reflected foresight, but having found what was found, it would then seem to me that to protect not only this population, but to warn everyone that population so exposed might be suffering from diseases from this exposure, I feel this the obligation of the scientists.

We mentioned earlier that Environment Canada is involved in legal proceedings on behalf of the fish in Yellowknife Bay. The Department of Health & Welfare waited until July 17, 1974, after the latest spring arsenic spill to publicly admit at a Yellowknife City Council Protection Committee Meeting that people drinking untreated water directly from Yellowknife Bay could become poisoned over a period of time.

It wasn't until at least October that Health and Welfare posted a sign in the Yellowknife Bay area, the area the Indians use, stating that drinking water might be hazardous to one's health. Unlike the Environmental Department which is litigating on behalf of fish, neither the Indian Affairs Department nor the Department of Health have ever begun legal proceedings in the Yellowknife area on behalf of people.

We also placed a call to Yellowknife and talked to Dr. Ali Uygur who is the Director of Medical Services for the Mackenzie Zone for the Department of National Health and Welfare. Dr. Uygur said he was unaware of the 1969 report. Probably because the study was conducted, he said, before he came to Yellowknife. We also called the Office of the Minister responsible for the Department of National Health & Welfare, the Honourable Marc Lalonde. His office has promised to call us back.

1975 TERRITORIAL BUDGET \$164 MILLION

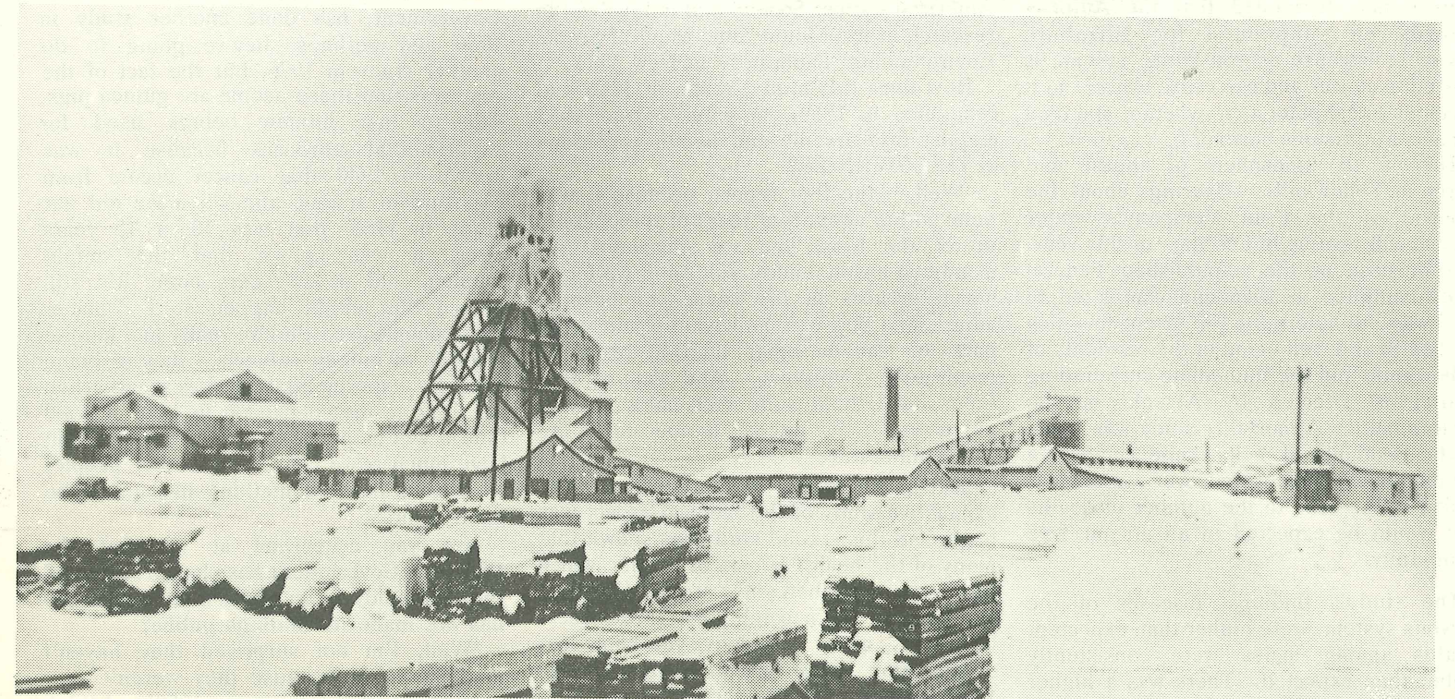
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10¢

yellowknifer

SPECIAL REPORT



ARSENIC

yellowknifer

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AS IT HAPPENS...

Last Wednesday, residents of Yellowknife were shocked and outraged when the CBC radio program, As It Happens, disclosed the findings of a study conducted nine years ago and kept under wraps by the Federal Government.

The Lloyd Tataryn produced show painted a grim picture of an environmental problem affecting the lives of every citizen; arsenic pollution of the entire city and surrounding area.

Here is what program hosts Barbara Frum and Allan Maitland had to say.

Arsenic and Yellowknife last made the news together on October 10, 1974. Recent legislation requires every industry using water commercially to apply for a licence. In October, hearings were held in Yellowknife to consider the application of Giant Mines. The hearings were suddenly adjourned however when the spectre of Arsenic poisonings, especially amongst the native people was raised.

There's been rumours or speculation, there's half admissions but no complete admissions.

One of the big areas of controversy is a woman named Elizabeth Drygeese who died a couple of months ago and it was reported at the time that she died of terminal cancer and there were rumours flying all of over the Old Town that she in fact had a high level of arsenic in her body and it was finally confirmed by one of the town aldermen, Colin Wynne, who said that she had in fact died with a very high level of arsenic in her body.

The lawyer for the Indian Brotherhood and the man representing the Yellowknife Council has demanded that the Autopsy records be subpoenaed for Elizabeth Drygeese because as you know, arsenic is related to cancer and can cause cancer, so it becomes a real point as to whether she died of cancer or arsenic poisoning.

There's an atmosphere of unease and worry in Yellowknife. Hearings about the renewal of the Gold Company's water licence will resume in February of this year. The purpose of the unpublished Federal study compiled in 1966 and completed in 1969 was, 'to determine the extent to which the health and well being of the residents of Yellowknife and the immediate surrounding district is affected by Arsenic in the environment.' A mortality study was made of the residents of Yellowknife comparing the deaths which occurred over a nine-year period in the area to the number of deaths that would be expected in an arsenic free community.

The study's findings, diseases of the nervous system, were higher than expected. Deaths among males were consistently higher than expected. There was a higher than expected death rate because of diseases of the respiratory system.

The study adds that the investigating team could have very easily underestimated disease rates and deaths in Yellowknife.

To quote the study, 'When interpreting the above statistics, it must be borne in mind that to a large extent persons who live

in Yellowknife were not born there. It would appear that a larger than average proportion is self-elected. Persons when arriving in Yellowknife probably have a higher physical health status than other Canadians of equivalent age and sex.

The study adds, 'Probably even more important in relation to mortality statistics is the fact that there is in all probability a tendency for persons who become seriously ill while in Yellowknife to leave Yellowknife for treatment. It is quite hard to estimate if there were other persons who had lived in Yellowknife for a considerable portion of their lives and who left Yellowknife and died shortly after leaving.

In 1955 a Health and Environment report of Yellowknife was launched. In 1952 some Indians in the area apparently died of arsenic poisoning. Also, about that time, a small herd of cattle brought in to provide milk for the community died after drinking arsenic polluted water. Dr. Kingsley Kaye was a key member of that Department of National Health and Welfare study. Dr. Kaye is now working on a project for the American Cancer Society and is involved in research at the Mount Sinai Medical School Environmental Laboratory in New York.

How does this study, made in 1966 and completed in 1969, compare to your 1955 enquiry into arsenic and health conditions in YELLOWKNIFE?

'Well in the first report, because it was done within about five years of the opening up of the town site we measured, we examined hospital admissions and we found no differences in the causes of hospital admissions between Yellowknife and other parts of Canada other than in terms of respiratory conditions. And that at that time, and I think quite reasonably, it was put down to the intense temperature; the cold temperature.'

'But in the second report, a rather more exhaustive study of the medical aspect was made and this second study has shown that many of the health effects of arsenic which have been described since around 1940 on. For instance, skin conditions, cardiovascular effects, neuro pathology, you know loss of sensation. nerve sensation, that kind of thing. These effects showed up in the second 1966 study and paralleled what we know from other studies to be the effect of arsenic on people'.

These studies even showed something of the order of twice the incidents of leukemia and lymphatic cancers. This is not a very big factor. I mean for instance in the arsenic

situation you get as many times that, but it must be remembered that 1966 was only 18 years after the smelter operations started in Yellowknife. In 18 years, we know from our investigations of arsenic and other occupational hazards, this is not long enough to show up the production of cancers. I think that today, which is now going on to almost 10 years later than the 1966 study, I think today one would likely see a substantial incidence of cancers above what would normally be expected.'

What do you conclude after studying the two reports and what is your reaction to the steps that have been taken since the Yellowknife arsenic situation first became known?

'I think it's quite obvious - it was even obvious in the 1950's - what we've got here is a kind of thing like those syphillites in the United States in the South twenty years ago whom the U.S. public health service decided to divide into two groups, one group that would get antibiotics and one group that would get no treatment and they would observe them and see what happened to a person with syphilis who didn't get any treatment and I think you've got the same thing in Yellowknife. It might not have been quite as deliberate but quite as planned. That you have a population of 3,000, 5,000 people in a remote section of Canada. They are working most of them for a Global Corporation that has its headquarters primary one outside of the Country and we have these people there and we did a study in 1955 and the Government of Canada. The Federal Government, has done another study in 1966 and perhaps they're going to do another study in 1976, but the fact of the matter is that these people are guinea pigs. They're just human beings used for experimental purposes because it was known in 1940 that cancer occurs from exposure to arsenic and when we did our study in 1955, that was 10 or 15 years later....it was known that that might happen. 10 or 15 years later, it's still known that might happen so I consider these people are - they're really just kind of a group of human subjects - they're being used for experimental purposes and when we come to the conclusion in 1976 or 1980 (and it will be about then that these people have much more cancer than other people) then we will say something has got to be done about it.'

Are you concerned at all that the Canadian Government has chosen to regard the 1969 study as an internal document and has not made its findings public?

'Well, I'm not surprised they haven't made it public because they weren't very keen about what I did in the 1950's. I think that's what these two studies show. That's why I regard it as a human experiment. An experiment in which you make measurements, how much people are exposed to and you're waiting to see what will happen to those people.

came up just recently. The Fire Department Chief, he came down to Mike Sikyea's place. I brought him there to read the Indian sign.

Before that the sign was only in English.

Mrs. Betsina:

No, it was only English.

Mr. Sikyea, how come you are not following these warning signs? Why are you still drinking that water?

Mr. Sikyea:

Because I don't want to pay for my water.

You don't want to pay for water?

Mr. Sikyea:

Ya. Before the white people came in 1914 there were not a soul of a white man around

here. I and the people were feeling happy that time.

And the water was good?

Mr. Sikyea:

And when they start the mine that is the time the water is getting spoilt. It is getting worse now.

Mrs. Betsina:

And people are afraid.

I thank you both for coming in today. Mr. Sikyea, thank you.

Mr. Sikyea:

Ya.

Mrs. Betsina, thank you.

Mrs. Betsina:

You are welcome.

SOME FACTS

The not-for-public attribution study completed by the Federal Government in 1969 came to these conclusions after examining the hospital data in Yellowknife, and I quote: 'The most notable findings are: the higher separation rates for mental, psycho-neurotic and personality disorders in Yellowknife with particular reference to physcho-neurotic disorders'.

The increased rates for respiratory infections excluding pneumonias, with particular reference to upper respiratory conditions among males in Yellowknife. Other findings of interest include the increased rates for leukemia, neo plasms of the lymphatic system, allergic manifestations, diabetes, ulceration of stomach and duodenum, anterior sclerotic degenerative heart disease.

Dr. Tom Hutchinson is professor in the Environmental Studies Department of the University of Toronto. He has recently conducted environmental research in the Yellowknife Area.

Dr. Hutchinson, I understand that you have examined some rather recent government reports concerning the environment around Yellowknife. I am thinking in particular of the Fox study in 1973. Is arsenic still contaminating the area?

The overall finding certainly is that there is a significant arsenic problem in the area and that this appears to relate to the two main mines and smelters there - that is the Giant Mine and the Con Mine. Most of the arsenic appears to be getting into, especially Yellowknife Bay which is right beside Yellowknife in Great Slave Lake and it's getting in through various streams and lakes inland in the case of Con Mine. The lakes themselves are contaminated in the immediate vicinity with arsenic which has reached, in several cases, very high levels in the sediments.

Now the unfortunate aspect of that, of course, is that there is some degree of permanence to the pollution which has occurred there. That is it's accumulated in the past in sediments and it's unlikely to be simply leached out and it will take a long

long time for it to disperse. Certainly we are talking of, in terms of sediment pollution in the Yellowknife region, these would be the highest that I have personally come across in North America. Indeed, the only other area which I can think of that's comparable to the degree of arsenic pollution in the water and in the sediments is the Bay in Tasmania of Australia where they had some very nasty problems with oyster beds.

What does this mean for the marine life of the Yellowknife area?

Dr. Hutchinson:

Well, there are two things that came out from the Government findings. First of all, the levels of several of the metals which are polluting toxic metals, arsenic, copper, zinc and then lead and cadmium, all of these were elevated in the fish which were in close proximity to discharge waters in parts of the bay which had sediments contaminate it from the mines. One would be first of all concerned with arsenic here. The second implication would be thus a good deal of the other biota, the invertebrates, the little shrimps and clams and things of this kind, the snails. All of these are contaminated with arsenic and again with copper and zinc and the food chain consequences to organisms living on these is that you are going to have accumulative food chain effects. Then the question is who eats these, if anybody? Is there a potential effect on man's health and one would have to be concerned with any segments of the population using fish as a large part of their diet. So that would be my first concern there.

The second quite different concern is that from some of our own studies done in 71 and 74 the 74 one is very incomplete at this stage. It's quite clear that the soil and some of the vegetation in the vicinity of Yellowknife is also contaminated. So we are not just dealing with the water problem and with a problem through fish to man, we are probably dealing with an area which is in all respects contaminated. That's the air, the soil etc. The water quality data from 69 to 74 for that area did suggest that there was a

good case for looking rather carefully at the levels of arsenic carried in the water. One finds that the highest contamination is at the short of time when you expect spring runoff sort of May, June, July period of the year and one would suppose that the high arsenic levels in the water, in the lake waters and the river waters at that time are simply geared to first of all runoff from the land. The runoff including solution of arsenic from the soils and secondly the runoff from arsenic which is accumulated in the snow during the winter months.

Last summer Environment Canada began legal proceedings against Giant Yellowknife Gold Mines under Section 33 of the Fisheries Act which reads 'No one shall deposit deleterious substance in waters frequented by fish'. A spokesman for the department told us that Environment Canada could not take legal action on behalf of people. Environment Canada is primarily concerned with fish. People come under the jurisdiction of the Department of National Health and Welfare, the same department that is chosen to keep the raps on the medical evidence concerning arsenic collected in Yellowknife a few years ago. Dr. Bertram Carno is chairman of the University of Illinois and School of Public Health. Later on this year his school will host a medical conference to examine and re-evaluate all available medical evidence that deals with the effects of arsenic and lead.

We sent Dr. Carno a copy of the 1969 arsenic study the Federal Government has had squirrelled away.

Do you have a general comment first Dr. Carno about the release of the report or the non release of the report for so long?

Well, I think it's a serious problem. I think where scientists have data which appears to be valid and significant, and this study appears to be a pretty good one; that it was carefully done, that where unusual findings occur it is critical that the population at large know about it.

I think that with vinyl chloride, you know that there was an animal experiment many years ago which was never published and as a result many men have died with cancer of the liver and many more will die who that I think where we find that a toxic material is causing an irreversible disease and cancer leukemia lymphomas, things that are reported here are not reversible diseases once you have them, that such a thing should be made public immediately.

So you wouldn't criticize anyone who held it up?

Well, I don't know the circumstances there. But, I, certainly from a physician and researcher's standpoint, would have to be very critical of the scientist who did not release such data. I think that for the world at large it becomes a very important part of the international literature and it makes it possible for the rest of us who are concerned about these materials to then take appropriate action. You see we have to build up a body of knowledge of this kind

As It Happens...

One major change has taken place since the 1969 unreported Federal study was completed. The Town of Yellowknife where most white mine and smelter workers live now has its drinking water piped in from a source located some distance away from Yellowknife Bay. The Indian community, however, doesn't have running water. Water has to be delivered to them. There has been some suggestion that due to circumstances certain Indians in Yellowknife continue to use the polluted water systems.

Mr. Mike Sikyea is a 70-year old Dogrib Indian who lives in the Yellowknife Indian community. Mr. Sikyea came into our Yellowknife studio along with Mrs. Marion Betsina, also a Dogrib Indian and a mother of seven.

The unpublished Federal study of Yellowknife contains a description of a clinical survey of 369 male residents. Clinical examination of these men revealed a high prevalence of skin lesions, chronic non-specific respiratory diseases and of corollable electro-cardiographic changes.

Mr. Sikyea, are you drinking water from the lake or are you taking water from the delivery service?

We usually get water from the ice, we take ice from the lake.

How are you getting it?
I pull it on a trailer. I pull it on the sled. I just use ice water.

What's the problem here, Mrs. Betsina, is it not convenient to deliver it to anybody?



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Well, the City Hall wanted every house who got water delivered to it to pay their bill - \$5.00 a month. Some people cannot afford that, eh? Old folk, old pensioners, like Mike, who cannot afford it.

So he goes down to the lake and takes the ice?

Yes, a lot of people do that.
So this water service is not automatically included in any service?

No.
How many people like Mike Sikyea are scraping ice off the lake for their water supply?

Oh there's lots of old pensioners in Yellowknife. There in the Village, there's a lot of old people.

And it's money that's keeping them from getting the water service?

Yes.
What about the fish? Are they eating the fish?

Well a bit, the baby can't eat fish anymore. It's really poor, you know. A lot of people have dog team - I have a dog team of my own too. A year ago we used to give fish to our dog, you know. We used to give fish to our pups, to our dogs and our dogs were fat. But, this year a lot of people give fish to their dogs and the dogs are coming skinnier from the fish eh? And the fish is real polluted too. They taste oil or gas, eh, that's how it taste.

Mike Sikyea, are you agreeing with her?
No, the fish taste just a little old some times.

Mrs. Betsina:

I'll tell you something. We have two mines eh. We have a dam and so much snow in the North now and when Spring comes it overflows the dam and the arsenic goes into the water. And, I'll tell you in the North, here in Yellowknife, a lot of native people I met, I talk to people, I go visit them, they always say they're chilly, they're cold, always their health is always poor. It is from pollution air, I guess. You go out of town, like maybe Fort Rae, or some other small settlement, people are just healthy, they're not cold, nothing is wrong with their health. And some of the air, I think, is polluted, because a lot of people complain about their lung trouble, eh.

What about swimming, what happens when people go swim in the lake?

Oh, my children are always like sports, every summer four or five times a day they used to go swimming and now I talked to the children about it last summer - anytime they go dive in the water, the water's green. When they come out of the water they feel dizzy and their eyes burning because they opened their eyes while they're swimming underneath. You know since then they go swimming, maybe once or twice, maybe three times in one month.

Tell us about Elizabeth Drygeese.

Oh the Doctor said she had some arsenic in her body. She was pretty old. She had poor, really poor lungs. 'I can hardly seem to breathe, my lungs are always sore', she said.

Did the doctors ever connect arsenic to her case?

Yes, when she died. Only when she died. And there's some other people too.

Are these cases going to be brought up in February at the Enquiry?

I hope they do that, geez!

What would you like to see happen there?

If the Mine were held, if they could pay for our water bill and if they can hire so many people, you know who stick around the mine so often.

Mr. Sikyea, has the Government ever warned people about the arsenic, do you think, sufficiently. Have they told them exactly what arsenic is doing to people?

You see the Chief doesn't even understand the English. They don't understand what they're talking about.

Mrs. Betsina:

I don't think the Government ever did come around or talked to the people about arsenic. We are the ones. We just found it out just recently, you know through the Health Centre, eh? Then we start seeing the signs.

How long ago did the signs go up?
Mrs. Betsina:

Oh just this, maybe in June or May or June anyway the signs came up.

Did they know about arsenic much before that?

Mrs. Betsina:
Yes, they knew that and the Indian sign

STUDY PROVES ARSENIC-HEALTH LINK

BUT HEALTH MINISTER CONTINUES TO ISSUE DENIALS

Despite his continuing denials of a link between arsenic and the health of Yellowknifers, Federal Health Minister Marc Lalonde Friday released a report which confirms it.

Last Thursday he uttered assurances that the report did not link arsenic to ill health and said that the federal government report concluded in 1969 would 'not make great bedside reading'.

Following the public outcry, the Minister released the report Friday. It says 'evidence of association between arsenic exposure and a high prevalence of skin lesions among individuals occupationally exposed to contact with arsenical dusts was found'.

However, the report, which detected higher-than-average levels of arsenic in the air and water around Yellowknife, finds other symptoms of ill health in Yellowknife residents which it can't explain.

It says abnormal brain-wave changes 'and other neurological findings' were detected more frequently than would have been expected and adds, 'the significance of this occurrence cannot be explained at this time'.

It also found a high incidence of acute respiratory disease in males as well as a high prevalence of chronic 'non-specific' respiratory disease.

The study, prepared by health workers in the Environmental Health Directorate, says the irritant action of inhaled arsenic dust may have had a minor contributing role to play in these conditions.

Deputy Commissioner reassured, but concerned

Deputy Commissioner John Parker, and the Mayor of Yellowknife in 1966 is not surprised at the revelations of the DeVillier's study.

He says 'it has to be borne in mind that some of the people of Yellowknife knew there was some existence of arsenic pollution' and said that now, 'the situation has been monitored and to a large extent corrected'.

Although not in complete agreement with what he termed the irresponsible methods and 'scare approach' used by CBC, he is optimistic that the situation will be resolved and gave assurances that 'our government (Territorial) will make sure that Health and Welfare will take the proper steps in accepting their responsibility'.

His main concern now is that there be a careful follow up and a full release of the study.

But this could be less important than other environmental factors, for instance, the harm to the respiratory system from smoking in a cold climate.

The report also says it is possible that environmental arsenic contributed to the prevalence of skin lesions among residents of the community other than workers exposed in the mines.

Mr. Lalonde said that neither he nor several of his senior officials had been

aware of the report's existence until the CBC show. Labor Minister John Munro was Health Minister when the report was completed in 1969.

The report also found high rates for leukemia, tumors of the lymphatic system, allergies, diabetes, stomach ulcers, and heart disease. It says the recording of these diseases, however, was based on small numbers and requires further investigation.

INDIAN MINISTER DENIES REPORT HIDDEN AWAY

Judd Buchanan, Federal Minister of Indian Affairs and Northern Development, stated that proper and sufficient steps were taken by the Government at the time the DeVillier report was compiled, to ensure the safety of the water supply in Yellowknife.

Mr. Buchanan also said, during a press conference here yesterday, that 'no effort was made to make this report confidential', and he is now looking into information that leads him to believe that a copy of the report was sent to both the Territorial and City Council of Yellowknife at the time of its completion.

A copy of the report was issued to the Indian Brotherhood over six weeks ago and according to Water Board officials, the report has been on file in the Laing Building since sometime in 1970.

The CBC program, 'As It Happens' which released findings of the report on its Wednesday night show, has been labeled as 'irresponsible reporting which only played up one part of the study', by Mr. Buchanan.

Before the press conference Buchanan said that 'not once did I hear mention of the steps that were taken to prevent the population of Yellowknife from being exposed to the arsenic'.

When asked by a member of the Native Press if his department would look favourably upon the request made by the Indian Brotherhood in regards to tests being performed on the fish in Back Bay, Buchanan answered in the affirmative.

He also stated that he would look into the possibility of the Department of Indian Affairs and Northern Development paying for the delivery of the fresh water that must be taken to the natives in Old Town.

When asked about a medical for people that lived in Yellowknife before the steps taken by the Federal Government (which involved the money to relocate the intake of

water from downstream of the tailing areas of the mines to a safe up-stream location as well as ordering the mines to install proper equipment to regulate the percentages of arsenic in the water, Buchanan answered that a release made by Marc Lalonde has covered that area.

The release made by the Federal Minister of Health and Welfare stated that a medical survey would be made of all residents of Yellowknife, with particular attention paid to 'high risk populations' such as children, oldtimers and natives. 'Persons found to have a substantial arsenic level in their blood or hair will be encouraged to undergo detailed clinical, medical examination'.

Also before the press conference, Judd Buchanan stated that he was not aware of the location of Yellowknife's emergency water supply intake, (which is located downstream from the mines tailing areas), but that his department would definitely look into the matter and see what could be done.

ARSENIC REPORT NOT GIVEN TO GIANT MINES

The manager of Giant Yellowknife Mines says that the company did not ever receive a report of the 1966 study of conducted by Dr. DeVilliers.

Dave Emery, himself a resident at the time of the study said that the mine has always given complete co-operation to official health and environmental agencies and is using the best technology presently available to reduce (pollution) emissions.

He stated the mine was continuing research to make further improvements in co-operation with other gold mines and the Department of Energy and Resources.



THE 'SECRET' REPORTS

WHAT WAS HIDDEN FROM THE PUBLIC, AND WHY?

Northerners tend to be paranoid about bureaucratic federal government decisions, particularly those that ignore the rights of the Northern people and frequently appear to exist for the sole purpose of justifying the existence of Ottawa desked stuffed shirts.

However, they became absolutely incensed after hearing the findings of one of the few reports that was not only meaningful but crucial to their very existence.

The reason.....Dr. DeVillier's Report researched in 1966 and hidden away ever since.



**ARSENIC LEVEL IN CITY
DRINKING WATER WAS ACCEPTABLE
ONLY 16% OF THE TIME**

'I tried to get a copy of the study for six years', says former Yellowknife Mayor Fred Henne. 'I was a private citizen when I was one of the participants in the 1966 health study and later when I spent a full day in my boat helping a federal government man take hundreds of water samples in the Yellowknife Bay'.

'When I got in the chair as Mayor in 1968, I thought, now I am in a position to get a copy of the study. Northern Health Chief, Dr. Gordon Butler kept saying he would get me a copy, but I've never seen it. Butler was the guy who should have been able to get it for me'.

Mr. Henne recalls how, when the government announced a one million dollar project to construct a pipeline bringing water from the Yellowknife River upstream from the Bay and the mines, City Council was at a loss to know the reason.

An excerpt from the report as quoted on the As It Happens program probably explained the windfall. 'It is seen that the water supply was within acceptable limits less than 16% of the time. Approximately 15% of the time the water supply is estimated to have been above the maximum permissible level of 0.05 arsenic parts per million. On one day, June 20, 1966, the water contained 2.92 arsenic parts per million. This value is 10 times greater than the generally accepted emergency level of 0.3 per million. In the months of June and July it may be seen that the water was of an

acceptable quality only 1.3% of the time. In no one month could one estimate that the water was of an acceptable standard more than 30% of the time'.

Henne went on, 'We had been warned in newspaper advertisements not to use leafy vegetables without washing them, and I can recall Stanton (a former medical health officer) telling us not to drink water in the Bay in the spring because of arsenic concentration in the runoff. We used to get a weekly report from the government on arsenic concentration in the water, but the reports were pretty good.'

'We never got any real cooperation from Health and Welfare and there was more kept under the blanket than anybody knows'.

'Parker (Mayor of Yellowknife until 1967 and now Deputy Commissioner of the NWT) was one of the main guys who kept things under the blanket'.

**FIRTH RECOMMENDS FREE MEDICALS
FOR ALL YELLOWKNIFERS**

The member of parliament for the NWT Wally Firth who flew to Yellowknife immediately the problem became known wasted little time in voicing his thoughts.

'Why was this report not made available, who was responsible for holding it back and how will the situation be corrected'.

He answered one of his own questions when he stated that the federal government should make available free of charge to any requesting it a complete medical examination by non-government doctors who would

be answerable to the municipal and territorial government. He added that Con and Giant mines should foot some of the bill if they are found responsible for the hazards.

'I'm not happy about this situation', he said, 'this is information that every Yellowknifer has the right to know.'

'If nothing is done by the time the House sits on the 22nd, I want to know the past, present and future plans of the government and we won't wait long for them to take action'.

Possibly the greatest concern of Yellowknifers is not the possibility of arsenic poisoning, but rather, high blood pressure caused by the general conviction that once again their interests are being jeopardized by government subterfuges and cover ups.

**'HANG THE BUREAUCRATIC ASSES'
SUGGESTS EX-ALDERMAN**

'The bureaucratic asses who decided in the first place to sit in judgement on whether or not the study ought to be released should be hung from the nearest tree', says former Yellowknife Alderman Bill Walton. 'the only reason for the report being held back was because it contained something bad'.

'If arsenic is a hazard, then I've had it. If its a hazard, it exists in the air and the soil as well as the water. It could have been eliminated five or six years ago'.

'I made a statement in Council at the time we were demanding the report from the government that the information was in danger of being lost for ever because of the secrecy. It wouldn't come out at the proper time in proper form'.

'I'm not surprised the government didn't make it public. I've yet to detect any signs bureaucracy has any public conscience at all. They're not concerned with people'.

City Council knew the health study had taken place and tried to bring it to light. Northern Health was holding 'secret' meetings with the mines and when agreement for a water pipeline was announced, we wondered what was wrong.

**'STORM IN A TEACUP'
SAYS DR. PEARSE O'DONOGHUE**

'It's a storm in a teacup' is the way Yellowknife's Medical Health officer, Pearse O'Donoghue, explained it. I've yet to come up with a case where the arsenic level was above the acceptable normal'.

**DOCTOR WHO WORKED IN 1966 TESTS
ASTONISHED NOT TO FIND ARSENIC
POISONING**

Dr. O'Donoghue's findings are supported by Dr. Otto Schaeffer of Edmonton's Camsell Hospital who was one of the men who 'played a minor part' conducting tests for about three weeks during Dr. De Villiers 1966 study.

He describes it as a very good study design and says he looked particularly for signs of chronic arsenic poisoning, but was 'astonished not to find one typical, or acute chronic case'.

Dr. Schaeffer does recall a high incidence of respiratory diseases which he says were not typical of arsenic poisoning, but could be attributable to the high percentage of hard rock miners in the sampling.

Asked about liver ailments reported, he suggested that could be attributed to heavy drinking, something for which Yellowknifers have long been noted.

**DOCTORS SHOULD DEMAND STUDY
RESULTS AND FOLLOW UP ON FIRST
STUDY, SAYS DR. GIBSON**

But not all doctors interviewed were as complacent. Dr. George Gibson, President of the NWT Medical Association, although agreeing that symptoms attributable to arsenic were hard to pinpoint, felt that Doctors should demand a copy of the report. 'It may create a certain amount of alarm but this is not sufficient justification to withhold it from the public'.

He said the obvious thing to do if the study was to be of clinical importance was to obtain the files of the 400 all male participants in the 1966 study and track them down. The statistical analysis would be of inestimable value separating those who died of cancer or a respiratory disease and those who died from ordinary cause. A former practitioner for 20 years in Chilliwack, Dr. Gibson said he noted little difference in the comparable number of cancer deaths in that city of 40,000.

**SURVEY NOT COMPLETED FOR YEARS
BECAUSE OF LACK OF COMPUTER
TIME, SAYS FORMER CHIEF OF
NORTHERN HEALTH SERVICES**

Contacted in Vancouver, Dr. Gordon Butler, Chief of Northern Health Services when the study was conducted and until mid 1971, was reluctant to comment on the CBC charges because, 'my Minister has promised to make a statement and I'm a federal employee'.

'I gave out a statement back in 1970', he said.

In June, 1970, Dr. Butler told Yellowknife newsmen he personally would not eat leaf vegetables grown in the area because of the high arsenic content. His comments came about when CBC news Yellowknife uncovered a 1967 report which showed

dangerously high levels in leaf vegetables grown in Yellowknife.

Northern Health Service officials had never seen fit to publish these findings adequately.

Shortly later the Minister of Health John Munro acknowledged that as a result of Dr. Butler's comments to the press, a full investigation would be made into the arsenic levels in leaf vegetables.

At the time, Dr. Butler indicated that a

study on the arsenic level of fish was being undertaken, but denied there was any evidence of an above average ratio of cancer among Yellowknifers.

The results of some studies conducted in 1966 were not yet available and had never been made public....in fact some were not even complete, he told reporters.

The official reason....a lack of computer time.

**'It's a dirty Liberal trick.....poison the water supply,
then raise the price of liquor'**

Mike Piro



This photo shows Giant Mine's tailing seepages in April 1974 and their relation to the Yellowknife water supply. Point #1 shows the spill while #2 indicates the area where seepage has continued for a number of years. Point #3 pinpoints the position of Yellowknife's present water intake system installed in 1970 and located in the Yellowknife river. The old water intake [lower right of photo] is located in the middle of Yellowknife Bay and in the event of an emergency, water from this polluted area would be fed directly into our existing system.